Abstract

Equal access to education does not necessarily ensure equal educational experiences of opportunities within the classroom. This paper examines classroom interaction patterns within an elementary school attached to a Nigerian university; it explores whether these interactions vary by student gender, level in school, or teacher gender. The paper concludes with a discussion which focuses on the impact of classroom interactions on academic achievement and career choice.

About the Author

Dr. Karen Biraimah is Assistant Professor in the Department of Educational Foundations, University of Central Florida, Orlando. Her research interests include the relationship of gender and class to educational opportunities and ultimate life chances, with special emphasis on patterns of gender differentiation from within the schools of West Africa. She taught secondary school in Ghana as a Peace Corps volunteer and later lectured in the Faculty of Education, University of Ife, Nigeria.

Educational
Opportunities
and Life
Chances:
Gender
Differentiation
within a
Nigerian
Elementary
School

by

Karen L.
Biraimah
College of
Education
University of
Central Florida

Women and International Development

Michigan State University
206 International Center, East Lansing, MI 48824-1035
Ph: 517/353-5040 Fx: 517/432-4845
Email: wid@msu.edu Web: http://www.wid.msu.edu

Working Paper #150 November 1987

Educational Opportunities and Life Chances: Gender Differentiation Within A Nigerian Elementary School

Equal access to education has been a recurrent theme in comparative literature. Yet even when schools approach parity in enrollment rates, this fact has not ensured equal educational experiences or opportunities within the classroom for both boys and girls. Students may have the opportunity to attend school, but this may not extend to equal involvement in classroom academic activities or levels of teacher reinforcement. Furthermore, inequities within the classroom may have not only immediate but also long-term effects. Specifically, students' academic achievement and career expectations may be closely tied to the type of educational opportunities experienced within the classroom, and those academic interactions may be related more to gender than ability. This paper will address these issues by examining the patterns of gender differentiation found within an elementary school attached to a Nigerian university: an elementary school with a high level of excellence compared to other local elementary schools, and one which achieved parity in male/female student enrollment.

Why Does Inequality in Education Occur?

Is Inequality Due to a Lack of Educational Access?

Patterns of unequal access and utilization of schooling are found in much of the literature on Third World women's education. Anderson and Bowman's analysis (1980) of various studies indicates that girls have less schooling than boys, that this gender disparity increases at higher levels of education, and that girls tend to come from families of higher socioeconomic status than boys.

Emphasis on the issue of accessibility has also been the focus of various studies (UNESCO 1975, 1980; Deble 1980) which have tried to pinpoint causes for lack of female educational access. These reports suggest the need to overcome unfavorable opinions toward the education of girls, the implementation of more relevant educational programs for girls, and the need for more role models employed within the modern sector.

Is Inequality a Function of In-School Processes?

The literature on Third World women not only underscores patterns and possible causes for unequal access to education, but also suggests that when girls do obtain access, they continue to receive gender-differentiated knowledge. Foster and Clignet's (1966) study on students in the Ivory Coast reveals that even though female students come from higher social and economic status families than boys, they remain concentrated in low-status secondary schools and often take clerical and domestic science courses.

Thus, even if females achieve equal access to educational institution, they can still experience inequality through various in-school processes which bring about socialization and the inequitable distribution of knowledge. It is unclear exactly how these school processes function. Finn, Reis, and

Dolberg (1980) posit that the unequitable distribution of knowledge and the socialization occurring in schools are a function of several factors which may influence girls' aspirations. Their argument includes: differential interaction patterns between teachers and students by gender, lack of suitable role models within the school, and transmitted messages within the curriculum and texts.

The ability of African schools to make an impact on gender equality will largely depend on whether girls are exposed to the same formal and hidden curricula, standards, and options as boys. Eliou's (1973) work on the education of girls in the Ivory Coast, Upper Volta, and Senegal suggests that social equality for girls is not simply dependent on access, but on whether schooling is differentiated by gender. She posits that girls are not only discriminated against in selection, but once access to schooling is achieved, female students are exposed to even greater disadvantages through the differential distribution of knowledge in secondary school. Eliou states that girls' eagerness to learn, to gain qualification, and to do creative work is usually stifled in the first cycle of secondary school, where they are relegated to a general education cycle or technical education emphasizing clerical or home economics skills.

My study presents this differential process not simply a product of secondary education but as a process which may be established during the latter part of elementary school. And as the study takes place in one of the better elementary schools in the area, the fact that girls have obtained access to quality education may not necessarily imply access to equal educational opportunities. Beyond the issues of access, however, this paper also focuses on another set of questions concerning the effects of gender-differentiated education on the achievement levels and career expectations of those girls who experience them.

University Staff School Environment

The drive for universal primary education (UPE) for all Nigerian children has not necessarily included equal educational opportunities. "In Nigeria, some schools are reserved for children of certain classes of people (such as university staff schools)...and those schools charge high fees...provide quite luxurious accommodations when compared with those other schools...and enjoy adequate staffing" (Dubey, Edem, and Thakur 1979:13).

The field research for this study was conducted in an elementary school established and supported by a university located in western Nigeria. The school (which will be called University Staff School) fell well within the parameters of a "reserved school," as it was established to provide on-campus quality schooling from kindergarten through sixth grade (or level) for children of university staff and faculty.

Organization, Staffing and Curriculum

During the 1983-84 school year University Staff School had an enrollment of 1,133 students, 51 percent of which were female. The staff consisted of 40 teachers (one-third female), a headmistress from Great Britain, a male assistant headmaster, one male and two female secretaries, and a male accountant.

With the exception of kindergarten and level one, all classes were taught by a variety of subject specialist teachers. In levels two through six, students remained in one classroom while teachers rotated according to a weekly fixed schedule. All students within an assigned room attended the same classes, and all students in particular grade level studied the same subjects. No electives or special schedules for individual students were available. This uniformity between classes was also noted between grade levels, with the same subjects begin taught at each level. Every student at University Staff School studied English, math, social studies, science, Bible knowledge, the Yoruba language, health, P.E., and art. Upper elementary students also studied French.

Compared with other local elementary schools observed, University Staff School had a well qualified faculty. Many teachers were graduates of a government teacher training college (the equivalent of an America junior college), with teaching certificates in elementary education or a subject specialization. A few teachers had obtained advanced teacher training certificates or Baccalaureate degrees in a subject matter area.

University Staff School facilities were also far superior to those observed in surrounding schools. Classrooms were airy and constructed of sturdy cement block. Indoor plumbing, electric lights, and fans were found in each block of classrooms. The school also had science labs, art rooms, a well stocked library, an assembly hall, a comfortable staff room, and administrative offices.

Patterns of Classroom Interaction

The previous discussion suggests that, at least in the case of "reserved schools," Nigerian girls have achieved both equal access to quality schooling and curricular offering. According to official school attendance documents, in the 1983-84 school year girls comprised 48 percent of all level one students, and 51 percent of all level six students (University Staff School 1983); however, this does not necessarily imply that girls also experienced equal educational opportunities within those classrooms.

This paper discusses observed patterns of classroom participation in levels two and six of University Staff School, and compares them with academic outcomes and student expectations to determine if differential treatment within the classroom exists, and whether it appears related to achievement levels and career expectations.

<u>Methodology</u>

One hundred hours of classroom observation at University Staff School between October 1983 and February 1984 were divided equally between level two and level six classes. Data were collected during regularly scheduled classes. Also, each student within the observed classes was asked to complete a brief questionnaire which included questions regarding career expectations.

Two of the five level two classrooms were observed. This sample included 81 students (48 percent female) with an average age of 6.5 years. They were taught by 13 different subject specialist teachers, including five females.

Two of the four level six classrooms were observed. The sample included 74 students (49 percent female) with an average age of 10 years. They were taught by 11 different subject specialist teachers, including two females.

To diminish the possible effects of an observer's presence on teacher and student behaviors, two steps were taken. First, before any observations were formally recorded the observer visited each of the four classrooms for two weeks, allowing students and teachers to become accustomed to her presence as time passed the observer became less and less a focal point of attention, with only simple salutations exchanged during the latter part of the second week. A second approach to lessen the effect of an observer on class activities and behaviors was to extend formal observations over a relatively long period of time, making it more difficult to maintain unusual practices and behaviors. In total, more than twenty weeks were spent in formal observation activities within the selected classrooms.

As each class proceeded, the observer noted the frequency and type of classroom interaction by student gender. Classroom interactions were recorded under four main categories. The first, "Academic Interactions," included notations each time a student was called on by the teacher to answer or ask a question, engage in boardwork, reading, or recitation, or to contribute to a classroom discussion. A particular interaction with a student (e.g. questioning) was only recorded once, regardless of the length or repetition of the activity. Further notations were recorded only after the teacher had either selected another student, or had altered the type of interaction engaged in (e.g. the teacher changed the same student's activity from oral recitations to boardwork).

The second category, "Positive Academic Reinforcement," included notations each time a teacher responded in a positive manner to a student's academic interaction. These ranged from simple affirmative comments such as "good," or "fine work," to more lengthy statements such as "Kofi's paper was the best. The rest of you should study hard like Kofi." This instrument also included a section for positive teacher feedback regarding students' good behavior, but this interaction was never observed.

The third category, "Negative Academic Reinforcement," included notations each time a teacher responded in a negative manner to a student's academic interactions. These included teacher statements such as "no," "incorrect," or "Go and sit down. You cannot do these problems correctly."

The fourth category, "Negative Behavior Reinforcement," included notations each time a teacher responded in a negative manner to a student's classroom behavior. Comments such as "stop talking," or "You are acting like a fool. Sit down and shut your mouth!" were recorded under this category. The method for recording the frequency of teacher feedback was the same as that used for recording the frequency of classroom academic interactions.

In addition to this rather quantitative approach, the observer also recorded extensive field notes which more fully describe the type of classroom interactions and activities engaged in by students and teachers. These included extended notations on teaching methods, classroom management techniques, sequences of class activities, and verbatim recording of oral exchanges between teacher and students.

This paper first discusses the combined interactions observed in all classes. It then asks if classroom interactions vary depending on student gender, level in school, or teacher gender. Finally, the discussion focuses on the impact of classroom interactions on academic achievement and career choice.

Observed Classroom Interactions

A harsh and austere atmosphere, sprinkled with moments of physical pain and mental anguish, were the observer's most lasting impressions of the rigid teacher-centered classroom observed at University Staff School. Statistics (see Table 1) which reveal that only half of the children present ever participated in classroom academic interactions, while one-fifth of all children present received positive reinforcement and one-third received negative reinforcement, simply underscore the message of student marginality and negation which permeated the classroom environment. The following passage, exerpted from field notes, more clearly captures the austere and teacher-centered nature of the school.

As the English class began, the aide yelled for students to be quiet, while the teacher casually entered and left the classroom several times. Later, as the teacher wrote the lesson on the board, she continually told students to "shut your mouths and face the front." The teacher instructed the class orally on verbs while chewing a large piece of gum. After the students had orally supplied all answers to a particular exercise, the teacher announced that they were to copy those same sentences into their exercise books. As the aid threw the exercise books on the floor for students to collect, the teacher yelled "no noise" and left the room. Later as the aide sat at a desk repairing her shoe, the teacher re-entered the noisy classroom and said "Foolish children! You better stop talking and do your work. If you finish early you will do more!"

Neither the teacher nor the aide circulated about the classroom to help students. Rather, they simply chatted at the teacher's desk and waited for children to approach them with completed assignments. After reprimanding one girl for leaving a line between each sentence, the teacher again walked out and left the aide to mark the students' exercise books. The aide engrossed in marking, temporarily ignored restless students who had nothing to do after submitting their exercise books. Students wrestled, fought, or chased each other about the classroom with increasing abandon. Occasionally, the aide set aside her marking activities, and hit misbehaving students on the head with a belt. Yet, the physical punishment did little to impede the growing level of disorder, which continued until the P.E. teacher arrived to begin class (Biraimah 1984b).

While the pedagogical merits of particular class management techniques or instructional methodologies are not the focus of this paper, it is important to ask if all students experienced similar patterns of negation and marginality within their classes. Specifically, this paper asks whether student gender or grade level significantly affects the level and quality of educational opportunities available to University Staff School.

When the qualitative field notes and statistical data are examined on the basis of student gender and grade level, it becomes apparent that not all

students who have obtained access to University Staff School necessarily encountered the same educational opportunities. Patterns of gender differentiation which were negligible during the early years of schooling become more visible towards the end of the elementary school program.

As the data in Table 2 indicate, observed gender bias within level two classes was nearly non-existent when patterns of academic interactions and teacher reinforcement were taken into account. For example, 41 percent of the girls and 42 percent of the boys participated in academic interactions, while 19 percent of the girls and 18 percent of the boys received positive feedback regarding those interactions. The level of negative feedback for academic interactions was exactly the same for girls and boys -- 13 percent.

In the following excerpt from level two field notes we find little genderdifferentiation apparent in the observed English class, though there was a significant amount of harshness and negation directed toward all students by the teacher.

As the level two English class began, the teacher walked in with a sullen expression on his face. He told the students he did not like the way they said "good morning" and ridiculed them for not calling him by his proper name. He then notices some students consuming snacks at their desks and asked, "Are you in the market?"

Before beginning his story about an orphan, he hit a boy on the head for not paying attention. After completing his story the teacher selected one boy to come before the class and tell a story. While the boy preceded to tell a very long tale, the teacher paced in and out of the classroom, occasionally knocking boys and girls on the head for not paying attention. Finally he interrupted the boy and said "Okay, thank you very much." The teacher then said he wanted to pick from among the girls. After a very quiet girl told her story in front of the class, the teacher remarked, "Your story was very good though I couldn't hear you." The class ended when the teacher told them all to go out and buy books so that they could tell better stories (Biraimah 1983c).

Though boys and girls in level two classes shared equally in the sparse amount of academic interactions and teacher feedback regarding these activities, students, especially boys, experienced a relatively high level of behavior negations and reprimands by their teachers. Sixteen percent of the girls, but 30 percent of the boys received reprimands and physical punishment for behavior deemed inappropriate by their teachers.

These negative aspects of schooling, which were so frequently a factor in level two classes, appeared to be internalized by some of the students. In the following excerpt from observer field notes of a level two Yoruba class, we find that students who played "school" often repeated the physical and verbal abuse experiences in class.

When the Yoruba teacher left her level two class fifteen minutes early, the boys began beating up each other, as well as several nearby girls. Then one boy decided to play the role of a pompous teacher. He yelled at three female "students" while beating them on the head. Sustained violence against pupils was exhibited by the teacher who hit them on the head with a strap, destroyed their papers, and kicked their lunch boxes (Biraimah 1983b).

While the number of academic interactions are greater in level six than in two classes, and the amount of negative behavior problems in level six are less than in level two (could these factors be negatively associated?), we find that girls and boys in level six classes no longer experienced the same educational opportunities. For example, 51 percent of the girls, but 62 percent of the boys, became involved in classroom activities, while 19 percent of the girls but 27 percent of the boys received positive reinforcement of these activities. There were no significant differences in the amount of negative teacher feedback for academic or behavioral inappropriateness. This pattern of gender-differentiation which underscores female marginality and negative qualities is evident in the following excerpt from field notes taken in a level six math class.

During a brief quiz at the beginning of class, one male student was pointed out to the class as being "a very intelligent boy" for finding an error in the teacher's quiz. Iater the teacher openly accused a girl of copying and took away her quiz. When the quiz was completed the teacher told a female student to collect all of the exercise books, and then she was asked to find a eraser for a male student who was working a problem at the board. Later the teacher initiated an oral discussion of the problems and called on a girl who did not know the correct answer. The entire class laughed at her, but later cheered a male student who completed the problem correctly (Biraimah 1983d).

The previous excerpt suggests that level six boys often became classroom's academic "stars," while level six girls were assigned "housekeeping" chores or received messages about their intellectual inadequacies. Yet, it was also observed that level six girls often did not participate in even these less meaningful activities and interactions, but simply became invisible spectators along the classroom sidelines. The following classroom description underscores the data by suggesting that female students remained relatively invisible in class, while male students received most of the teachers' time and attention.

As the teacher entered the classroom all students stood and greeted him. After a boy cleaned the board and gave the teacher chalk and an eraser, he wrote math problems on the board. After spending nearly half an hour demonstrating one problem, the teacher called on two boys to work similar problems at the board and then asked students to practice additional problems at their desks. As the teacher walked about the room checking the students' work, he made a misbehaving boy kneel at the back of the class. The teacher then hit another boy on the back for staring at the kneeling boy. Four boys and four girls were selected by the teacher to collect, and later redistribute, the exercise books. The teacher then called on another boy to work a problem at the board, and as he came forward, the class was told that "he always did well in math." The class soon ended, after the teacher praised the boy for his correct answer (Biraimah 1984d).

The statistical and qualitative results from the University Staff School study imply that students receive different levels of educational opportunities according to their grade level and gender. Teachers involved more students in academic interactions as they progressed to higher grade levels. Gender-biased educational experiences, while less prevalent in lower levels of schooling, became more obvious during the final year of elementary school.

Yet this pattern of gender differentiation, firmly in place by the end of elementary school, may not simply be a function of formal education; rather, it may reflect in part, a traditional socialization pattern found within the broader Nigerian context.

Earlier research concerning girls' education in Nigeria has suggested that, while progress had been made in improving female access rates to schooling, there are many forces within the Nigerian social and cultural context which affected girls' educational opportunities and experiences (Muckenhirn 1966). Research posits that traditional attitudes concerning women's roles within Nigerian society, coupled with austere economic realities, often precluded or terminated a daughter's educational opportunities. Recent studies have looked for variations between ethnic groups, as well as in external economic factors, such as the recent oil boom and its impact on attitudes toward education. Csapo's (1981) work on the Hausa-Muslim societies of nothern Nigeria, for example, suggests that parents may allow their daughters to receive a little education, but only enough to make them satisfactory housewives who remain obedient to their parents and husbands.

As we note that patterns of gender differentiation become more pronounced by the end of elementary school, we should keep in mind that formal education may reflect the larger socialization process which has historically limited female participation.

Variance in Classroom Interactions by Teacher Gender

Though patterns of socialization may be difficult to alter, it is imperative for educators who are intent on minimizing gender inequality to examine factors within schools that might reinforce such gender differentiation. Toward this end our discussion now focuses on one such factor, that of teacher gender and its possible link to inequalities within the classroom.

When one entered a classroom at University Staff School, particularly at level six, it became apparent that teacher gender was often related to the mood of the class. Though not every teacher's classroom management and teaching techniques could be categorized in this manner, the observer noted that female teachers' classes were frequently less austere and harsh than male teachers' classes, with necessary corrections of academic work and behavior conducted in a less threatening manner.

For example, during a level six English class the female teacher first called upon all the boys to read in unison, while the girls listened. Then the roles were reversed. After reading in class, the students were given time to work at their desks on a written assignment. When they had finished one girl was assigned the duty of storing the chalkboard eraser, while a boy was asked to clean the boards. The children were then asked to read their answers while the teacher wrote them on the board. When responding to the students' answers, the teacher tended to avoid strong negatives by replying, "Your answer is not completely wrong" or "At least you tried to answer" when the student's response was incorrect. When the teacher called on a boy who had not volunteered, and subsequently answered incorrectly, the teacher asked the

class, "Is that the right answer?" After receiving a loud chorus of "no's," she told the student "Thank you anyway." (Biraimah 1983a)

The less austere nature of many of the classes taught by female teachers, however, did not preclude gender differentiation in level six classes. (There was little gender differentiation found in level two classes, regardless of teacher gender.) As the date in Table 3 indicate, both male and female teachers of level six students favored the boys over the girls with regard to academic interactions and positive reinforcement, though the level of differentiation was more pronounced in male teachers' classes. There was little differentiation with regard to male and female teachers' negation of students' academic or behavioral activities, with the exception of female teachers' relatively high number of reprimands regarding boys' inappropriate behavior (which might, in part, be explained by the more relaxed atmosphere of their classrooms). Though male teachers more than female teachers tended to involve a greater number of students in their classroom activities, this relatively high level of participation did not ameliorate the marginality and negation experienced by female students.

The following excerpts from field notes taken in a level six Yoruba language class and a level six math class, both taught by men, underscore the marginality and negative experiences of female students.

At the beginning of a Yoruba language class a boy was asked to erase the board while a girl was told to collect the exercise books from another classroom. When the girl returned she immediately began passing out the exercise books. However, the teacher interrupted her saying, "Give some of those to that boy. You are wasting our time!" When all the books had been handed out, two boys and one girl were asked to read aloud. During this time the class was punctuated by the shrill cries from the teacher demanding that a girl "go and sit down!" When the class had concluded, girls had participated in academic activities eight times, while boys had participated 35 times (Biraimah 1984a).

This theme of marginality is repeated in another male teacher's level six math class where boys, far more than girls, received the teacher's attention and feedback.

As the math class began, students stood as the teacher entered. After some discussion and demonstrations at the board, the teacher walked over and slapped a boy on the back twice for talking and said, "If you have any questions, come to me." The boy just smiled back at teacher. Later when a boy completed all assigned practice problems correctly, he was praised in front of class and given the honor of using the teacher's own book for further practice. The boy beamed with satisfaction and proudly walked back to his desk as his classmates watched. When students completed their assignments they crowded around the teacher's desk so their work could be corrected. As too many exercise books quickly accumulated, the teacher appointed a boy and girl to redistribute the books so that the students could mark their own work. The class ended with a loud cheer when a boy correctly gave the last answer for the assigned exercises (Biraimah 1984c).

When summarizing the effects of teacher gender on patterns of classroom inequities there appears to be a little significant difference between level

two boys and girls in classes taught by male or female teachers; however, by level six male teachers, more than female teachers, were reinforcing patterns of gender differentiation and female marginality.

While teacher behavior and Nigerian socialization patterns may be responsible, in part, for the observed gender-differentiated trends found within the classrooms of University Staff School, student behavior may also play a role. Whereas younger girls seemed to participate freely in classroom activities, it appears that older girls had begun to "live down" to expectations reinforced by a socialization process which limited their own academic expectations. Thus, gender differentiation which became evident during level six at University Staff School may have been enhanced by student-teacher interactions, as well as by local socialization processes.

I now address the possible outcomes of such educational inequality. In particular, I focus on the achievement levels and role expectations of the observed students to determine whether differing levels of educational opportunity are reflected in differing levels of educational outcomes.

The Outcomes of Gender Differentiation

The previous observations have shown that equal educational opportunities within the classroom do not necessarily follow equal access. In the case of University Staff School, students experienced more gender-differentiated academic involvement as their years of schooling increased.

While this pattern of gender-differentiated classroom involvement has been documented in numerous other studies (Biraimah 1982; Weitzman and Rizzo 1975), the issues addressed here are the potential effects and outcomes of such educational inequality. Does diminished involvement of older girls in academic activities correspond to lower achievement levels and career expectations?

To address there issues I examine two factors, end-of-term reported grades and student career expectations, to determine if patterns of gender-biased educational opportunities are reflected in students' achievement levels and perceived career options.

Academic Achievement

The data and anecdotal examples recorded in field notes suggest that gender differentiation within the classroom becomes quite pronounced by the last year of elementary school; the implications of such practices remain problematic. Whether gender-differentiated education is the product of teacher actions, student actions, the socialization processes within society, or a combination of all of these, it is important to examine whether these inequalities influence the outcomes of schooling. In particular, should we expect to find boys and girls achieving at relatively the same rate in level two, where little significant difference in classroom interactions was observed? Conversely, should we expect level six student achievement levels to vary according to observed patterns of gender bias?

The data in Table 4 reflect the level of academic interactions and teacher response patterns for all classes that reported final term marks. As classes in mathematics and English occupied over half of all instructional time, their interaction patterns and term marks have been highlighted. Because teaching staff and the examination format varied between grade levels, analysis of these data will focus on a comparison of results by gender and subject matter within each level.

In level two, where girls experienced equal, or more, opportunities than boys to participate in academic classroom interactions and receive teacher feedback, we find that their academic performance also equalled or exceeded that of the boys. For example, level two girls and boys received the same average mark in English (59 percent), though girls did receive somewhat more classroom attention than boys. In mathematics classes the girls experienced only slightly more teacher reinforcement than boys, but achieved far higher average grades, that is, 76 percent compared to 67 percent for boys.

What the data suggest is that girls do not experience any appreciable patterns of gender-differentiation in lower level classroom, and the relative freedom to participate is reflected in grades which equal or exceed those of the male students.

Yet, what is more significant is the girls' demonstrated ability to persist within a system which had become increasingly gender-biased by the final year of elementary school. As the date in Table 4 indicate, female level six students have maintained virtually the same overall grade average as level six boys (60 and 61 percent respectively), though definite patterns of gender bias in academic interactions and teacher feedback have favored level six male students.

When the academic marks, academic interactions, and teacher feedback rates in level six English classes are examined, we find results which are essentially the same as the overall marks previously discussed. When the results of level six mathematics classes are examined, however, we note that female students no longer keep pace with their male counterparts. In math class the level six girls' average marks were 11 percentage points below those of the boys (50 percent and 61 percent respectively), while they also experienced fewer opportunities to participate in academic interactions or to receive teacher reinforcement. This difference in male and female scores is even more significant when it is recalled that female level two students scored an average of nine percentage points above level two male students.

Patterns of gender-differentiation are clearly visible in all level six classes, yet these inequities are more strongly felt in mathematics than in English classes. And though it goes beyond the parameters of this paper to prove causation, the socialization practices which limit womens roles in "male domains" of math and science within the Nigerian context may help reinforce patterns of inequality (Diejomaoh 1971). These issues are discussed further in the following section.

Career Expectations

It has been observed that girls may have equal access to quality schooling, yet not experience equal educational opportunities. It also

appears that gender differentiation within the classroom may be related to differing levels of academic achievement. However, does it necessarily follow that another outcome of unequal educational opportunities is gender-differentiated career expectations? The study approached this question by tabulating career expectations obtained through brief written questionnaires completed by all students enrolled in observed level two and level six classes. When results were tabulated, particular attention was paid to the relative status of expected careers.

The data in Table 5 suggest two important patterns. First, it appears that maturation and increased levels of schooling positively affect the level of expected careers. The percentage of students expecting high status careers (e.g., doctor, lawyer, or university professor) increased dramatically between levels two and six for both boys and girls. Second, a trend which may be more germane to this study is that the type of career expectation, like patterns of classroom interaction and achievement levels, becomes, gender-differentiated by the final year of elementary school.

Level two girls, though expecting somewhat fewer high status careers than boys, maintained similar levels of career expectation. By level six, girls' expectation no longer paralleled boys' expectations with regard to high status careers. While almost 92 percent of level six boys expected high status careers (however unrealistic this expectation might be), only 61 percent of their female counterparts expected similar careers.

In attempting to establish causal relationships between schooling and limited career expectations of female students, it is unlikely that gender-differentiated education is the sole factor. Rather, the schools may simply reinforce cultural norms and role expectations already embedded within the Nigerian socialization process. Factors such as gender, class, socioeconomic background, and ethnic affiliation may all affect educational outcomes and career expectation, and as the student matures, they probably become more aware of these gender-biased expectations.

A study conducted by the University of Lagos, Nigeria (1974) addressed these issues as it focused on the relationship between student majors, career aspirations, and the realities of the Nigerian job market. Though the study supported a plan of corrective actions to ensure greater female participation in all academic programs, it posited that the effects of gender-differentiated employment patterns would mitigate rapid social change.

The Lagos study suggested that even when women gain access to university education, cultural and economic factors within the Nigerian society continue to affect their educational and career expectations. Though the Lagos report stated that the "female university undergraduate of the University of Lagos has values less traditional than her male counterpart, and extremely different from those of the average Nigerian women," her educational and career choices appear limited by societal realities (Diejomaoh 1974:12).

The study found that females were enrolled in a narrower range of academic disciplines than males, and that this occurrence reflected "to a considerable degree the societal biases against employment of women in certain occupational areas" (Diejomach 1974:13). For example, few or none were enrolled in the fields of engineering, accounting, business, or finance. And while the

university encouraged plans to counter this pattern, the study admitted that, "until women believe that they can have equal access to all occupations, they will continue to feel that it is in their best interest to specialize in those areas of study where career opportunities for them exist" (Diejomaoh 1974:13).

While career expectations of the students at University Staff School reflect patterns of gender-differentiation found within the classroom, they also mirror broader societal role allocations and the realities of the Nigerian labor force.

Concluding Remarks

While it is not the purpose of this paper to prove causation, a notable pattern has been established. When girls begin their education careers their achievement levels, classroom participation, and career expectations are quite similar to those of boys. With maturation and increased years of schooling, however, gender-differentiation increases.

The literature on Third World women's education has suggested that among the factors impeding educational equity are female students' concentration in low-status institutions and limited curricular options, particularly at the secondary level.

This research posits that gender bias within the classroom is in place during the latter portion of a girl's elementary school experience. It also suggests that simply expanding female access to relatively high-status educational institutions will not ensure equity. Attainment of equal access to quality schooling and exposure to the same curricular offerings may not ensure equal educational opportunities for girls. And the outcome of this gender-biased classroom environment may be reflected in achievement levels and career expectations which closely parallel patterns of gender bias within the society.

Table 1

<u>Classroom Interactions</u>
(% of Students Attending)

	T-1	All S	tudents	
	Interaction	<u> </u>	(N=155) #	
1.	Academic interactions	49	2782	
2.	Positive academic reinforcement	20	1165	
3.	Negative academic reinforcement	13	728	
4.	Negative behavior reinforcement	20	1138	
Cum	ulative Attendance		5695	

Note: To arrive at a participation rate, the total number of interactions observed during all classes was divided by the cumulative attendance; the total students attending each observed class.

Table 2

<u>Classroom Interactions by Student Gender and Grade Level</u>
(% of Students Attending)

	Level Two			Level Six				
Interaction	Girls (N=39) % #		Boys (N=42) % #		Girls (N=36) % #		Boys (N=38) % #	
1. Academic interactions	41	569	42	649	51	668	62	896
 Positive academic reinforcement 	19	258	18	274	19	246	27	387
 Negative academic reinforcement 	13	178	13	210	11	148	13	192
4. Negative behavior reinforcement	16	227	30	475	15	191	17	245
Cumulative Attendance		1393		1559		1300		1443

Table 3

<u>Classroom Interactions by Teacher Gender</u>
(% of Student Attending)

				MALE T	EACHERS			
			<u>Level</u>	Two	<u>Level</u>	Level Six		
Int	eraction	All Students N=155	Girls <u>N</u> =39	Boys N=42	Girls N=36	Boys N=38		
1.	Academic Interactions	57	45	47	58	71		
2.	Positive academic reinforcement	24	21	20	21	31		
3.	Negative academic reinforcement	14	13	14	14	15		
4.	Negative behavior reinforcement	18	15	26	16	15		

				FEMALE	TEACHERS		
~L		277	Level	Two	<u> Level Six</u>		
Int	eraction	All Students N=155	Girls N=39	Boys N=42	Girls N=36	Boys N=38	
1.	Academic Interactions	39	37	37	39	45	
2.	Positive academic reinforcement	16	16	15	15	19	
3.	Negative academic reinforcement	11	12	13	7	10	
4.	Negative behavior						
	reinforcement	24	21	34	12	21	

Table 4

<u>Student Academic Interactions and Achievement</u>
(In Percents)

			Leve	el Two_	Level Six		
Cat	egor	У	Girls (N=39)	Boys (N=42)	Girls (N=36)	Boys (N=38)	
	All	subjects ^a					
	1.	Average mark ^b	66	62	60	61	
	2.	Academic interaction	38	38	45	58	
	3.	Teacher feedback ^C	32	32	32	44	
в.	ENG	LISH					
	1.	Average mark ^b	59	59	61	64	
	2.	Academic interactions	43	36	33	40	
	3.	Teacher feedback ^C	35	30	24	32	
c.	<u>I'AM</u>	<u>H</u>					
	1.	Average mark ^b	76	67	50	61	
	2.	Academic interactions	37	37	45	53	
	3.	Teacher feedback ^C	37	35	39	48	

Note: a. Subjects for which final grades were posted. Level two subjects included English, Yoruba, social studies, math, science, and health. Level six subjects included English, Yoruba, social studies, French, and math.

c. Positive or negative teacher feedback.

b. Data were extracted from official University Staff School "End of Term Reports," February 1984.

Table 5

Career Expectations by Student Gender and Grade Level

				Lev	el Two)		Level Six		
Career		Girls (N=39) % #		Boys (N=42) % #		Girls (N=36) % #		Boys (N=38) % #		
Α.	Med	lical								
	1.	Doctor/Pharmacist*	21	8	23	9	39	14	49	18
	2.	Nurse	26	10	-	-	19	7	-	-
в.	Pro	ofessional*	13	5	18	7	22	8	38	14
c.	<u>Edu</u>	<u>ıcation</u>								
	1.	University Professor*	8	3	8	3	_	_	5	2
	2.	Teacher	13	5	5	2	8	3	-	-
D.		unsportation vices	3	1	28	11	6	2	8	3
E.	Mis	scellaneous	16	6	18	7	6	2	-	
*H	GH S	STATUS ONLY	42	16	49	19	61	22	92	34

Note. Careers categorized as professional include careers such as lawyer or engineer. Transportation and social services include careers such as pilot, musician, or police officer. The Miscellaneous category includes careers such as skilled trades and petty trades. High status careers include the categories of doctor/pharmacists, professional, and university professor.

References

Biraimah, K. L.

- 1982 The Impact of Gender-Differentiated Education on Third world Women's Expectations: A Togolese Case Study. Ph.D. dissertation, State University of New York, Buffalo.
- 1983a University Staff School, Ile-Ife, Nigeria, Level 6M-English Class Field Notes. Unpublished raw data, October 26, 1983. Copy available from the author, Department of Educational Foundations, University of Central Florida, Orlando, Florida.
- 1983b University Staff School, Ile-Ife, Nigeria, Level 2N-English Class field notes. Unpublished raw data, October 28, 1983. Copy available from the author, Department of Educational Foundations, University of Central Florida, Orlando, Florida.
- 1983c University Staff School, Ile-Ife, Nigeria, Level 2L-English Class Field Notes. Unpublished raw data, November 18, 1986. Copy available from the author, Department of Educational Foundations, University of Central Florida, Orlando, Florida.
- 1983d University Staff School, Ile-Ife, Nigeria Level 6M-Mathematics Class Field Notes. Unpublished raw data, January 25, 1984. Copy available from the author, Department of Educational Foundations, University of Central Florida, Orlando, Florida.
- 1984a University Staff School, Ile-Ife, Nigeria, Level 6M-Yoruba Class Field Notes. Unpublished raw data, January 25, 1984. Copy available from the author, Department of Educational Foundations, University of Central Florida, Orlando, Florida.
- 1984b University Staff School, Ile-Ife. Nigeria, Level 2N-English Class Field Notes. Unpublished raw data, January 27, 1984. Copy available from the author, Department of Educational Foundations, University of Central Florida, Orlando, Florida.
- 1984c University Staff School, Ile-Ife, Nigeria, Level 6J-Mathematics Class Field Notes. Unpublished raw data, February 3, 1984. Copy available for the author, Department of Educational Foundations, University of Central Florida, Orlando, Florida.
- 1984d University Staff School, Ile-Ife, Nigeria, Level 6J-Mathematics Class Field Notes. Unpublished raw data, February 3, 1984. Copy available from the author, Department of Educational foundations, University of Central Florida, Orlando, Florida.

Bowman, Mary Jean and C. Arnold Anderson

1980 The Participation of Women in Education in the Third World.

<u>Comparative Education Review</u> 24(2):13-32.

Clignet, Remi and Philip Foster

1966 The Fortunate Few: A Study of Secondary Schools and Students in the Ivory Coast. Chicago: Northwestern University Press.

Csapo, Marg

1981 Religious, Social and Economic Factors Hindering the Education of Girls in Northern Nigeria. <u>Comparative Education</u> 17(3):311-319.

Deble', Isabelle

1980 The School Education of Girls. Paris: UNESCO Press.

Diejomach, V.P. (ed.)

1974 <u>Aspirations and Attitudes of University of Lagos Undergraduates</u>. Research Project No. 6. Lagos, Nigeria: Human Resources Research Unit, Faculty of Social Sciences, University of Lagos.

DuBey, D. L., and D. A. Edem, and A. S. Thakur

1979 The Sociology of Nigerian Education. 10(1):30-46.

Finn, Jeremy D., Janet Reis, and Loretta Dolberg

1980 Sex Differences in Educational Attainment: The Process. Comparative Education Review 24(2):33-52.

Muckenhirn, Erma F.

1966 <u>Secondary Education and Girls in Western Nigeria</u>. Ann Arbor: The University of Michigan Press.

UNESCO

1964 <u>Access of Girls and Women to Education in Rural Areas: A Comparative Study</u>. Paris: UNESCO Press.

1974 <u>Women, Education, Equality: A Decade of Experiment</u>. Paris: UNESCO Press.

University Staff School

1983 <u>Number on Role Document</u>. October 21, 1983. Ile-Ife, Nigeria.

Weitzman, Lenore J. and Diane Rizzo

1975 Sex Bias in Textbooks. Today's Education (64):49+.

WOMEN AND INTERNATIONAL DEVELOPMENT PROGRAM

MICHIGAN STATE UNIVERSITY ISSN# 0888-5354

The WID Program at Michigan State University began its Women in International Development Publication Series in late 1981 in response to the need to disseminate the rapidly growing body of work that addressed the lives of women in Third World countries undergoing change. The series cross-cuts disciplines and brings together research, critical analyses and proposals for change. Its goals are: (1) to highlight women in development (WID) as an important area of research; (2) to contribute to the development of the field as a scholarly endeavor; and (3) to encourage new approaches to development policy and programming.

The Working Papers on Women in International Development series features journal-length articles based on original research or analytical summaries of relevant research, theoretical analyses, and evaluations of development programming and policy.

The WID Forum series features short reports that describe research projects and development programs, and reviews current policy issues.

EDITOR: Anne Ferguson
MANAGING EDITORIAL ASSISTANTS: Pam Galbraith
DISTRIBUTION & PRODUCTION MANAGER: Barry Crassweller

EDITORIAL BOARD: Margaret Aguwa, Family Medicine; Marilyn Aronoff, Sociology; James Bingen, Resource Development; Ada Finifter, Political Science; Linda Cooke Johnson, History; Assefa Mehretu, Geography; Anne Meyering, History; Ann Millard, Anthropology; Julia R. Miller, College of Human Ecology; Lynn Paine, Teacher Education; Paul Strassmann; Economics; David Wiley, African Studies Center; Jack Williams, Asian Studies Center; Kim A. Wilson, Institute of International Agriculture; Khalida Zaki, Department of Sociology.

NOTICE TO CONTRIBUTORS: To provide an opportunity for the work of those concerned with development issues affecting women to be critiqued and refined, all manuscripts submitted to the series are peer reviewed. The review process averages three months and accepted manuscripts are published within ten-to-twelve weeks. Authors receive ten free copies, retain copyrights to their works, and are encouraged to submit them to the journal of their choice.

Manuscripts submitted should be double-spaced, sent in duplicate, on disk or emailed (to wid@pilot.msu.edu) in WordPerfect compatible format and include the following: (1) title page bearing the name, address and institutional affiliation of the author; (2) one-paragraph abstract; (3) text; (4) notes; (5) references cited; and (6) tables and figures. The format of the article must follow the format as depicted in our "Style sheet". Submit manuscripts to Anne Ferguson, Editor, WID Publication Series, Women and International Development Program, 202 International Center, Michigan State University, East Lansing, MI 48824-1035, USA. Style sheets are available upon request.

TO ORDER PUBLICATIONS: Publications are available at a nominal cost and cost-equivalent exchange relationships are encouraged. To order publications or receive a listing of them, you may write to the WID Program, 202 International Center, Michigan State University, East Lansing, MI 48824-1035, USA or check out our Web site (http://www.isp.msu.edu/wid/) which also has all the ordering information and an order form. Orders can also be sent to us via email at (wid@pilot.msu.edu).