

# A comparative study of the classroom treatment of male and female students of the Federal Polytechnic, Ilaro.

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## Abstract

Following the increasing evidence of differentials in the educational opportunities and attainments of male and female students, especially in the underdeveloped countries, this study sets out to uncover the extent of such gender differences in Nigeria. Purposely, the study aims to discover whether male and female students perceive their classroom treatment (by faculty) and experiences differently; and whether there is any correlation between such perception and their academic performance. Using the College Student Experience Questionnaire (CSEQ), Third Edition (Pace, 1990), it was found that male and female students do not have any significant difference in their perception about classroom treatment and that there was a negative relationship between males' and females' attitude toward education. However, it was recommended that faculty should employ gender-neutral practices that promote equal opportunities for both male and female students.

**Keywords:** classroom treatment, gender opportunities and academic achievement

## 1. Introduction

Researchers have noted the evidence of a growing gender gap in educational achievement, both in the developed and underdeveloped countries (Fergusson & Horwood, 1997; Praat, 1999; Thiessen & Nickerson, 1999; Hillman & Rothman, 2003; and Weaver-Hightower, 2003). In the opinion of some researchers, (for example, Alton-Lee & Praat, 2001; Spelke, 2005; and Hyde & Linn, 2006), statics have revealed that females are outperforming males at all levels of the school system, attaining more school and post-school qualifications, and gaining admission into colleges in higher numbers. According to these researchers, these findings have caused extensive apprehension about male educational achievement and have led to huge assumption and discussion about the origin of gender differences in education.

Konstantopoulos (2004) notes that research about the impact of school characteristics on students' academic performance is of great interest as a stimulating school environment arouses the student to learn. According to him, it is very important to identify school factors that make schools more effective since schools differ substantially in impacting students' academic achievement.

Win and Miller (2004) noted that academic achievement at university can be viewed as a product of two sets of factors. The first set is each student's unique combination of socioeconomic elements and ability while the second is the systems of education and patterns of imparting knowledge that are organised within schools. The interest of this paper lies in the influences of the second set.

Marks, McMillan and Hillman (2001) argue that "a higher level of confidence among students in their own ability, a school environment more conducive to learning, and a higher parental aspirations for the students' education" contribute to lifting student achievement.

Danesty (2004) maintains that a combination of a healthy family background and the child learning in a helpful environment with a stimulated learning or instructional aids or motivational incentives will enhance academic performance. According to him, good teaching, counselling, good administration, good seating arrangement and good building produce high academic achievements and performance.

Feingold (1988) notes that academic performance is affected by a host of factors, which include individual and household characteristics such as student ability, motivation, biological differences, parental and teacher expectations and behaviours, differential course taking and gender differences. Males are claimed to have larger average brain sizes than females and therefore, would be expected to have higher average IQs (Lynn, 1999; Allik, Must & Lynn, 1999; Colom & Lynn, 2004).

Within the gender theory, there are series of complex and competing discourses regarding the line between gender and education. For instance, while some researchers have concluded that there was a significant difference in academic performance in a way that boys performed better than the girls, especially, in science subjects (Momanyi, Shadrack & Bernard, 2010; Mkpughe, 1998). According to this school of thought, men are

regarded as “having superior sex and as dominant as they intrinsically have better brains and learn much better than women.” Other researchers have noted that although males have usually outperformed females in mathematics and science, this advantage seems to be vanishing as educational statistics are now indicating that females are outperforming males at all levels of the school system, obtaining more school and post-school qualifications, and attending university in higher numbers (Alton-Lee & Praat, 2001; Hillman & Rothman, 2003; Spelke, 2005; and Hyde & Lynn, 2006). These researchers explained that females tend to have better language abilities including essay writing skills, vocabulary and word fluency which promote better course work. Still, some other researchers have explained the achievement gap by examining factors such as differences in course taking behaviour, classroom experiences, cognitive processing and school factors (Fergusson & Horwood, 1997; Byrnes, Hong & Xing, 1997; and Young & Fisler, 2000). This group of researchers maintain that boys and girls are treated differently in coeducational classrooms and that they are encouraged to pursue interests and behave in ways that are thought to be “typically male” or “typically female”. For instance, Glasser (2004) finds that boys are often encouraged to answer more questions than girls and are expected to excel in mathematics and science classes while girls are expected to be better behaved and pursue more artistic and verbal interests such as literature and music. In a related research, The U.S. General Accounting Office (1996) reported that girls defer to boys in coeducational classrooms, are called on less than boys to participate in class activities, and are less likely than boys to study advanced mathematics and science.

The growing debate that boys and girls learn differently has increased the interest in educational research since academic performance affects enrolment for college courses, career choices, and application of the acquired skills and vocations in future work settings. The intent of this study is to examine whether there are any gender differences in the perceived classroom treatment of the students of the Federal Polytechnic, Ilaro.

## **2. Participants**

Participants of this study were 204 (102 males and 102 females) students of the School of Management Studies in the Federal Polytechnic, Ilaro. They are all in their final year of the National Diploma program (NDII). Based on the stratified random sampling, the sample was representative of the entire departments of the Management School. Out of the two hundred and four students, two hundred and two students completed the questionnaire, which makes a response rate of 99%.

### **2.1 Instrument**

Both qualitative and quantitative data were collected for this study. To collect the qualitative facts, in-depth interviews were conducted with the eight lecturers that were in classrooms at the time that the study was being conducted. This is required for comparative assessment of students’ compliant behaviour while in classroom.

To collect the quantitative data, the College Student Experience Questionnaire (CSEQ), Third Edition (Pace, 1990) was used. It is an 8-page questionnaire that on the average, any student can complete in less than 45 minutes (Pace, 1994). The questionnaire contains an array of demographic items, 8 “College Environment” scales that are designed to measure various aspects of the college environment, 14 “College Activity” scales that are designed to measure students’ effort in the learning process, and 23 “Estimate of Gains” scales designed to assess students’ evaluation of the outcomes of their college experience. Drew and Work (1998) had earlier used the scale in a study titled “gender based differences in perception of experiences in higher education: gaining a broader perspective.” According to them, the instrument has high reliability, relevant items, and has been used to collect a large amount of data from a wide variety of institutions.

## **3. Result and analysis**

The qualitative data that were gathered from the in-depth interview were reviewed while the quantitative data were analysed using the Statistical Package for Social Scientists (SPSS). Accordingly, the hypotheses in this study were tested using the t-test for independent samples and Pearson correlation coefficient.

Independent sample test

Table 1: Levenes test for equality of variances

		F	Sig.	T	Df	Sig.(2-tailed)	Mean differences	Std. Error difference	95% confidence interval of the difference	
									Lower	Upper
	Equal variances assumed	.024	878	-1.532	198	.127	-1.92	1.25	-4.39	.55
Perception of students										
	Equal variances not assumed			-1.532	197.995	.127	-1.92	1.25	-4.39	.55

The result in the table above indicates that female students' perception about classroom treatment is not significantly different from that of the males ( $p>0.05$ ). In other words, male and female students have similar views about educational experiences and attainments.

Table 2: correlation of male and female attitudes to classroom treatment

		Male attitude to education	Female attitude to education
Male attitude to education	Pearson correlation	1.000	-.104
	Sig. (2-tailed)	.	.304
	N	100	61
Female attitude to education	Pearson correlation	-.104	1.000
	Sig. (2-tailed)	.304	.
	N	102	61

Result in the table above indicates that there is a negative relationship between the males' and females' attitude toward education (since the correlation value is negative) although, the relationship is weak and is not significant ( $p>0.1$ ).

#### 4. Discussion

The intention of this study was to examine the conditions under which Polytechnic students (both male and female) learn in Nigeria and to find out if their sex differences affect the way they are treated. Consequently, this researcher employed qualitative and quantitative research instruments that were administered on the students of the Federal Polytechnic, Ilaro, Ogun State, Nigeria. Both male and female students were studied.

The study shows that there is no significant difference in the way that male and female students are treated in classrooms by their faculty. This result supports previous studies that have uncovered no evidence that male and female students are treated differently in college classrooms (Rienzi, Allen, Sarmiento & McMillan, 1993; Todd & Gerald, 1998; Polly, 2012). This result may be an indication that female students are now creating their own subculture that probably provides them social support and sense of security centred on the fact that worldwide, governments and societies are now generally more responsive to the girl-child education.

The study also discovers a negative relationship between the attitudes of males and females toward education. Although, the relationship was weak and insignificant, which is an indication that gender is not the singular important factor in determining whether a student will effectually or ineffectually participate in class activities. This means that some other factors such as individual student's cognitive abilities, school factors, socioeconomic status of the students, teacher's own competence and so on may be importantly taking into consideration by faculty and school authorities when formulating their instructional guides and policies.

#### 5. Conclusion and recommendation

This study concludes that gender does not play any significant role on how students perceive their class experiences and interactions. Based on this conclusion, it could be recommended that teachers should engage in

gender-neutral practices that promote equal opportunities for both males and females. Also, faculty need to identify the gender biases embedded in various educational materials and texts and take necessary educational materials and texts and take necessary steps to prevent such biases. Bailey (1992) argues that “we need to look at the stories we are telling our students and children as far too many of our classroom examples, storybooks, and texts describe a world in which boys and men are bright, curious, brave, inventive, and powerful but girls and women are silent, passive and invisible.” As a result, teachers need to create a learning environment that would be free of sex stereotyping in instructional organization, interactions, materials, and activities (Sanders, 2000).

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