

## Teacher Gender and the Academic Performance of Children in Primary Schools in Uyo Metropolis, Akwa Ibom State, Nigeria

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***Abstract** This study investigated the effect of teacher gender on the academic achievement performance of children in primary schools in Uyo Metropolis. Three hypotheses were formulated to guide the study. Using the stratified random sampling technique, three schools were selected for the study from which 60 pupils were co-opted using stratified purposive sampling technique. Using the ex-post-facto design, this research collected academic performance data based on the first term examination and continuous assessment of the selected students for data analysis which was carried out using 2-factor Analysis of Variance (ANOVA) with replication for the three schools. The results showed that teacher-pupil gender interactions do significantly affect pupil's academic performance as evinced in the differences between the performance of boys taught by male teachers and boys taught by female teachers and girls taught by female teachers and girls taught by male teachers. Based on this conclusion, recommendations were made with emphasis on the equal training and employment of teachers based on gender.*

***Keywords:** Pupil's performance, Teacher gender, Pupil gender, Primary school, Nigeria.*

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### 1. Introduction

Teaching in Nigeria, particularly at the primary school level, is tending towards becoming a female profession. There has been significant noticeable difference in the proportion of males to females working as teachers in the country's system. In Uyo metropolis for instance, statistics show that male teachers constitute only about 13.3% while female teachers constitute about 86.87% (SUBEB, 2011). The picture is not very different in other urban as well as rural areas all through the country.

A phenomenon in the school system that has been rather disturbing is the fact that despite the clamour for gender equality treatment, boys and girls do not seem to exhibit the same level of academic achievement. Ammermueller and Dolton (2006) drew attention to the fact that large literature existed on the difference between the academic achievement of boys and girls. They reported that historically, there had always been a gap favouring girls in reading, English and the Arts and languages. According to them, the pattern had been changing in recent times with girls improving in Mathematics and the Sciences, and even outperforming

boys in many countries. They further reported that there was in the United Kingdom, widespread evidence of girls outperforming boys at most levels in school and specifically, there was a gap between boys and girls by the age of 14-16 in the General Certificate of Secondary Education (GCSE) public examination results.

## 2. Statement Of Problem

Speculations in some quarters as well as disagreements in the result of studies have generated the question whether teacher gender actually affects pupils' performance in school. This study therefore hopes to ascertain whether teacher gender influences the academic performance of primary school pupils in Uyo metropolis.

## 3. Research Questios

The following research questions were formulated to direct the conduct of the study:

1. To what extent do boys taught by male teachers differ from those taught by female teachers in their academic performance?
2. To what extent do girls taught by male teachers differ from those taught by female teachers in their academic performance?
3. To what extent do pupils taught by male teachers differ from those taught by female teachers in their academic performance?

## 4. Hypotheses

The following hypotheses stated in the null form were generated from the research questions:

- Ho 1. There is no significant difference in the academic performance mean scores of boys taught by male teachers and that of those taught by female teachers.
- Ho 2. There is no significant difference in the academic performance mean scores of girls taught by male teachers and that of those taught by female teachers.
- Ho 3. There is no significant difference in the academic performance mean scores of pupils taught by male teachers and that of those taught by female teachers.

## 5. Literature Review

Smith (2004) observed that the diminishing presence of male teachers was a global issue and that the proportion of men within teaching ranks was declining significantly. He cited many studies whose findings demonstrated the continual decline of males in the teaching profession. He quoted figures from Common Wealth of Australia (2002), Education Queensland (2002), Queensland Catholic Education Commission (2002), NEA (2003), and Nelson (2003) to illustrate the situation of gender imbalance among primary school teachers, especially within Australia. Nelson (2003), for instance, was cited to have claimed that in 2002, the proportion of male primary teachers (within Australia) was only 20.9% and NEA (2003) was said to have indicated that only nine percent of American elementary school teachers are men.

It has also been speculated in some quarters that teacher's gender affected the performance of the child. Dee (2006) described two theories which suggested that the performance of the child depended on the gender of the teacher. According to him (Dee, 2006:1), one theory asserts that the teacher's gender shapes communications between teacher and pupil, while another says the teacher acts as a gender-specific role-model, regardless of what he or she says or does. Dee further explained that the second theory stipulated that students were more engaged, behaved more appropriately, and performed at a higher level when taught by one who shared their gender.

Results of studies on the influence of teacher's gender on the child's performance, however, appear to be inconclusive. Some authorities cited by Smith (2004) had claimed that there was a strong relationship between the gender of the teacher and the academic achievement of the student. Among those who had taken this stance were the Catholic Education Office (2002) and Education Queensland (2002). These had assumed that boys suffered a disadvantage in primary schools due to the paucity of male teachers and went further to campaign along with other protagonists (West, 2004; Nelson, 2003) for increase in the number of male teachers in order to cushion the effects of teacher gender imbalance in the schools. Krieg (2005) reported that a number of findings had indicated teacher and student genders were correlated with test outcomes.

Furthermore, Dee (2005a; 2005b) had found that the same-sex teacher indeed had an impact on student performance. Dee (2006) again reported that his results confirmed that a teacher's gender does have large effects on student's test performance. Based on his convictions concerning the authenticity of his results, he went further to claim that girls have better educational outcomes when taught by women and boys are better off when taught by men.

On the other hand, Holmlund and Sund's (2005) results did not support the idea that a same-sex teacher had a positive causal impact on student outcomes, measured in terms of course grades in upper-secondary school. In other words, they found no strong support for their initial hypothesis that a same-sex teacher improves student outcomes. Krieg (2005) also found no evidence to support the hypothesis that the interaction of student and teacher gender impacted upon test scores.

Since the results appeared to be inconclusive on the basis of information from literature, these researchers thought it worthwhile to carry out this study to ascertain whether the gender of the teacher will impact on the academic performance of primary school pupils in Uyo Metropolis. The study therefore attempted to examine the influence of teacher gender on the academic performance of primary school pupils in Uyo urban schools.

## 6. Research Method

### 6.1 Population, Sample and Sampling Technique

The population for the study consisted of all primary five pupils in primary schools in Uyo metropolis. There were about 1400 primary five pupils in all the public primary schools within the metropolis at the time of the study (SUBEB, 2011). To cater for class size disparity and teacher gender imbalance, 60 pupils were purposively sampled from three randomly chosen primary schools in Uyo Metropolis using the stratified sampling technique.

### 6.2 Research Design

The design for this study was the ex-post-facto research design. This design was adopted in view of the fact that the research was intended to examine the already seemingly existing influence of teacher gender on pupil's performance—a phenomenon over which the researchers had no control.

### 6.3 Data

Data for the study were raw scores obtained from records of the first terminal continuous assessment and examinations administered to primary five pupils in the selected schools, since all the pupils were taught from the same curriculum. The cumulative average scores of the first ten ranked students in each class were computed and analysed for the purpose of hypotheses testing. To ensure the concurrent validity of data obtained, the average scores obtained by 20 pupils from three schools were correlated using factor analysis

with replication for the three different schools selected for the pilot study. The correlation yielded a correlation coefficient of 0.97 for boys taught by male teachers and 0.87 for girls taught by female teachers; an indication of reasonable consistency.

#### 6.4 Method of Data Analysis

The raw scores were obtained from the continuous assessment records of respective schools based on which mean scores were derived and analysed using two-factor ANOVA with replication for the three schools. The F-ratios obtained from the analyses were further tested at  $p \leq .05$  for statistical significance.

### 7. Results

The results obtained from the data analyses were as presented here:

*H<sub>01</sub>: The academic performance mean score of boys taught by male teachers do not significantly differ from those of boys taught by female teachers.* From the analysis in Table 1, it could be observed that the obtained F-ratio is greater than the critical F. By this, the afore-stated null hypothesis is rejected. This means that the academic performance mean scores of boys taught by male teachers do significantly differ from those of boys taught by female teachers. This implies that teacher gender has a significant influence on the academic performance of boys in Uyo metropolis of Akwa Ibom State.

Table 1. Teacher Gender and the Academic Performance of Boys in Uyo Metropolis

Source of Variation	Sum of Squares	df	Mean Squares	F-ratio
Sample	3522.84	2	1761.42	17.71*
Columns	23.44	1	23.44	0.24
Interaction	1939.68	2	969.84	9.75
Within	5371.35	54	99.47	
Total	10857.30	59		

\*Significant at  $p \leq .05$ ; Critical  $F_{(2,54)} = 3.17$

*H<sub>02</sub>: The academic performance mean scores of girls taught by male teachers do not significantly differ from those of girls taught by female teachers.* The analysis in Table 2 shows that the F-ratio is greater than the critical value of the F statistic at  $p \leq .05$ . Thus, the second null hypothesis is rejected. The implication of this test outcome is that the academic performance mean scores of girls taught by male teachers do differ significantly from those of girls taught by female teachers.

Table 2. Teacher Gender and the Academic Performance of Girls in Uyo Metropolis

Source of Variation	Sum of Squares	df	Mean Squares	F-ratio
Sample	1948.64	2	974.32	11.52*
Columns	8.01	1	8.01	0.09
Interaction	2765.00	2	1382.50	16.34
Within	4568.62	54	84.60	
Total	9290.27	59		

\*Significant at  $p \leq 0.05$ ; Critical  $F_{(2, 54)} = 3.17$

*H<sub>03</sub>*: The academic performance mean scores of pupils taught by Male teachers do not significantly differ from those of pupils taught by female teachers. The analysis in Table 3 returns the F-ratio as greater than the critical value of the F-statistic at  $p \leq 0.05$  level. In view of this, null hypothesis three is rejected. This implies that the academic performance mean scores of pupils taught by male teachers do significantly differ from those of pupils taught by female teachers.

Table 3. Teacher Gender and the Academic Performance of Pupils in Uyo Metropolis

Source of Variation	Sum of Squares	df	Mean Squares	F-ratio
Sample	5349.34	2	2674.67	23.75*
Columns	852.80	1	852.80	7.57
Interaction	1199.89	2	599.95	5.33
Within	12837.84	114	112.61	
Total	20239.87	119		

\*Significant at  $p \leq 0.05$ ; Critical  $F_{(2, 114)} = 3.08$

## 8. Discussion

Discussion of the results of this study is based on the three hypotheses that were formulated for the research. From the data analyses, the result revealed that teacher gender has a significant influence on the academic performance of primary school pupils in Uyo metropolis. Specifically, boys taught by male teachers in Uyo Metropolis perform significantly differently from boys taught by female teachers. This finding is not different from that of Dee (2006) who found in his investigation that teacher gender exerts an influence on students' performance. This finding also corroborates the correlation between teacher gender and pupil's academic achievement submitted by Smith (2004). These researches (Smith, 2004; Dee, 2006) lend credence to the outcome of hypothesis one which shows that boys taught by male teachers do perform significantly different from boys taught by female teachers. Worth mentioning here too is the fact, as supported by the findings of West (2004) and Nelson (2004), that boys suffer a disadvantage because of the general paucity of male teachers at the primary school level.

Disparity also exists in the performance of girls taught by male teachers and those taught by female teachers as evinced in this study by the result of hypothesis two. This submission is in consonance with that

of Dee (2006) who submitted that teachers act as gender specific role models and as such, pupils are more engaged, behave more appropriately, and perform at a higher level when taught by one who shared their gender. The finding of this study supported by that of Dee (2006) further disproves the adjusted stance of Holmund and Sund (2005) that same-sex teacher had no positive causal impact on student outcomes in terms of course grades.

Generally, there is a disparity in the academic performance of pupils taught by male teachers and those taught by female teachers. This position, which is based on the result of hypothesis three, is not different from that of the Catholic Education Office (2002) and Education Queensland (2002) which found a strong relationship between teacher gender and the academic achievement of the students. Furthermore, it supports the report by Krieg (2005), who reported that a number of researches had indicated a correlation between teacher-student genders and test outcomes. While these submissions lend credence to the result of this study, it also points to the need for increase in the number of male teachers in order to assuage the existing teacher gender imbalance in the schools (West, 2004; Nelson, 2004).

## 9. Conclusion

This study investigated the effect of teacher gender on the academic performance of pupils. From the outcome of the study as portrayed in the results, the following conclusions are reached:

- Boys taught by male teachers perform significantly different from boys taught by female teachers, the former outperforming the latter.
- Girls taught by female teachers perform significantly different from girls taught by male teachers, the former outperforming the latter.
- Pupils taught by male teachers perform significantly different from pupils taught by female teachers, the latter performing better than the former.
- Teacher gender significantly influences the academic performance of pupils.

## 10. Recommendations

Based on the findings of this study, the researchers proffer the following recommendations:

- The government and private school owners should employ more male teachers to assuage the perceived teacher gender imbalance in schools, especially primary schools.
- The government and private school owners should encourage males to apply for and take up teaching appointments in primary schools through improved and attractive remuneration and incentives.
- Institutions educating primary educators and teachers should encourage males to pursue a career in primary education through the allotment of sizeable admission quotas to male candidates.
- Scholarships and educational grants should be provided for male teachers-in-training as an incentive and an enticement to draw more males into the pre-primary and primary education sector.
- Primary school teachers should devise and adopt pedagogical approaches that deemphasise teacher gender. By thus diminishing their gender, at least not behaving in a stereotyped manner, pupils may be able to pay less attention to gender disparity and focus more on the learning process.
- School teachers should pay particular attention to pupils of the opposite sex with a view to ensuring that the latter are not detached from the teacher because of gender as such could hamper the pupil's achievement.

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