



# **GENDER BASED PERCEPTION OF SELECTED STUDENTS OF THE POLYTECHNIC ON FACTORS INFLUENCING ACADEMIC PERFORMANCE**

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## **ABSTRACT**

This study aims to find out if there is a significance difference between male and female students perception on factors influencing academic performance using Federal Polytechnic Ilaro as a case study. The population of this study include final year students (National Diploma and Higher National Diploma) of Estate management and valuation and Quantity Surveying which were conveniently selected for the study. The Krejcie and Morgan method of selecting sample was employed to choose (83) participants form the population of the study. Mann-Whitney U test was used to test the hypothesis raised in this study. The results indicated that there is no significant difference between male and female students perception on factors influencing academic performance in the polytechnic. The study suggested that a wider research which will include other departments in the polytechnic should be conducted for generalization purposes.

**KEYWORDS:** Academic performance, Gender, Mann-Whitney U Test, Perception, Polytechnic, Student.

## **1 INTRODUCTION**

A nation's development process can be measured through education, as it is an important investment for human and economic development (Olufemioladebinu, Adediran & Oyediran, 2018). Whatever is the system of education, the learning outcome is determined by assessing performance (Goni, 2015). Quality of performance has become the key factor for personal progress. Parents desire that their children climb the ladder of performance to as high a level as possible. This desire for high level of achievement puts a lot of pressure on students, teachers, parents and schools and in general the education system itself. In fact, it appears as if the whole system of education revolves round the academic performance of students, though various other outcomes are also expected from the system. Thus a lot of time and effort of the schools are used for helping students to achieve better in their scholastic endeavours. The importance of scholastic and academic performance has raised important questions for educational researchers (Nuthana, 2007).

There are various reasons behind the need for good academic performance by the students irrespective of their gender. Some students seek good academic qualification for personal improvement while some wishes to satisfy their parent/guardian. Teachers also adopt different methods to ensure effective teaching and learning so that their students perform well and get good grades (Hdii & Fagroud, 2018).

Many factors which influence student's academic performance have been pointed out by different researchers. Hasan, Mohammed, Ali, Abdul Talib and Hsbollah (2020) posited that students' academic performance is affected by demographic characteristics, type of school and social economic factors. According to Olufemioladebinu et al (2018), academic performance of students are affected by many factors including age, gender, teaching facilities, student schooling, parent/guardian social economic status, student's area of residence, medium of instruction in school among others. Considine and Zappala, (2002) also submits that teachers' expectations from their students and the school environment have impact on the students' academic performance. However, Olagoke-salami and Akinola (2019) discovered that complex course content, mode of subject delivery and financial problems top the list amongst 18 variables examined on factors influencing academic performance of polytechnic students.

Gender issues have become the talk of today's forum. According to Adigun, Onihunwa, Irunokhai, Sada and Adesina (2015), gender is one of the factors that have considerable effects on academic performance of students especially in science subjects. It is the range of physical, biological, mental and behavioral characteristics pertaining to and differentiating between the feminine and masculine population. Juma and Simatwa (2014) strongly believed that gender is a major factor influencing students' academic performance. Goni, (2015) on the other hand discovered



no significant difference between gender and academic performance in Colleges of Education in Borno State. However, Killen (2014) discovered difference in opinion between lecturers and students perception on factors influencing students academic success at the university. On this basis, the study aims to examine the significant difference between male and female students perception on factors influencing academic performance in the polytechnic using Federal polytechnic Ilaro as a case study. Such information has the potential to be useful in several important ways. First, it could be used by the polytechnic administrators to help them provide a learning environment that will maximise the chances that students will be successful. Second, it could be used by lecturers and instructors to help them enhance the influence of positive factors and minimise the influence of negative factors. Third, it could be used by students to help them approach their studies in a way that will maximise their academic performance in the polytechnic

### 1.1 Objective of the study

To examine whether there is a significant difference between male and female students perception of factors influencing academic performance of polytechnic students.

### 1.2 Research question

Is there any significant difference between the male and female students perception on factors influencing the academic performance in the polytechnic?

### 1.3 Research hypothesis

- $H_{01}$ : There is no significant difference between male and female student's perception on factors influencing academic performance in the polytechnic.  
 $H_1$ : There is a significant difference between male and female student's perception on factors influencing academic performance in the polytechnic.

## 2 RESEARCH METHODOLOGY

The study uses survey research design. The design is appropriate as survey design involves the gathering of information on more than one case and at one point in time so as to collect a group of quantitative or quantifiable information regarding at least two variables, which are later analysed to discover form of relationship (Bryman, 2012).

Questionnaire was used to solicit information from final year students (ND II and HND II) of Estate Management and Valuation Department and Quantity Surveying Department on factors influencing students' academic performance in the polytechnic. A purposive sampling technique is suitable in this regard. This research uses the Krejcie and Morgan (1970) table of determining sample size from the population with 95% confidence level, 5% margin error and a population of 104 students, the table gave a sample size of 83 students. This is represented in Table 1.

Table 1: Sample size

Department	Population	Sample	Percentage
Estate Management & Valuation	36	29	34.6
Quantity Surveying	68	54	65.4
<b>Total</b>	<b>104</b>	<b>83</b>	<b>100</b>

**Source:** Olagoke-salami and Akinola (2019)

Mann-Whitney U test was used to test the null hypotheses and results presented in table ranks, test statistics and report to interpret the result of the research.



## 2.1 Results and Discussion

### 2.1.1 Descriptive data

Mean, standard deviation and median of variable by gender.

Table 2: Descriptive Statistics of Factors Influencing Students' Academic Performance in the polytechnic by Gender.

Gender	Mean	N	Std. Deviation	Median
Male	63.61	59	7.961	67.00
Female	67.83	24	10.688	68.50
Total	64.83	83	8.977	67.00

Source: Akinola and Olagoke-salami (2020)

Table 2 presents the students responses on gender and factors influencing students' academic performance in the polytechnic by gender. This analysis was revealed from the total values of scores for factors influencing students' academic performance in the polytechnic (see Olagoke-salami and Akinola, 2019) which were shown by the mean, standard deviation and median of the students. The responses obtained for males show ( $n = 59$ , Std. Deviation = 7.961  $Md = 67.0$ ) while for females show ( $n = 24$ , Std. Deviation = 10.688  $Md = 68.5$ ). This implies that on average continuous variables were higher in females than in males.

### 2.1.2 Test of hypotheses

The hypotheses postulated for this study are:

- $H_{01}$ : There is no significant difference between male and female student's perception on factors influencing academic performance in the polytechnic.
- $H_1$ : There is a significant difference between male and female student's perception on factors influencing academic performance in the polytechnic.

The hypothesis was tested using Mann-Whitney U test with  $p \leq 0.05$ . This comparison of means was based on the gender of the respondents. The rule for the acceptance or rejection of the hypothesis is that when the  $p$ -value  $> 0.05$ , the hypothesis is accepted, but when the  $p$ -value  $\leq 0.05$ , the hypothesis is rejected (alternate hypothesis accepted).

Prior to using the Mann-Whitney U test, it was ensured that the assumptions necessary for its use were met. The most important are:

- a) Coincidence of samples and
- b) Independence of observations which implies that each person can be counted only once. In other words, data referring to one subject cannot affect the data of others. (Pallant, 2010)

### 2.1.3 Mann-Whitney U test of students perception on factors influencing academic performance of students in the polytechnic

The total score of the 18 variables on factors influencing academic performance (see Olagoke-salami and Akinola, 2019) was added up to give an overall score for the factors. This exercise was carried out using the SPSS. The total factors influencing students' academic performance thus served as the continuous variable while gender served as the categorical variable. The result of this analysis is presented in Table 3.



Table 3: Factors influencing students' academic performance in the polytechnic (Test Statistics(a))

FACTORS INFLUENCING STUDENTS ACADEMIC PERFORMANCE	
Mann-Whitney U	518.500
Wilcoxon W	2288.500
Z	-1.908
Asymp. Sig. (2-tailed)	.056

a. Grouping Variable: Gender

Source: Akinola and Olagoke-salami (2020)

Table 3 presents data on the calculated z-values and the calculated statistical significance of difference between the crossed variables. The z-value of this result is -1.908 with a significant level ( $p$ ) of  $p = .056$ . The probability value ( $p$ ) is not less than or equal to .05, so the result of this research is not significant. There is no statistically significant difference in the factors influencing students' academic performance in the polytechnic scores of males and females.

The effect size ( $r$ ) of the factors influencing students' academic performance in the polytechnic can be calculated thus:

$$r = \frac{z}{\text{square root of } N} \quad \text{where } N = \text{total number of cases. (Pallant, 2020)}$$

In this research,  $z = -1.908$  and  $N = 83$ ; therefore the  $r$  value is .21. this would be considered a small effect using Cohen (1988) criteria of .1 = small effect, .3 = medium effect, .5 = large effect.

The Mann-Whitney U Test revealed no significant difference in the factors influencing students academic performance in the polytechnic scores of males ( $Md = 67, n = 59$ ) and females ( $Md = 68.5, n = 24$ ),  $U = 518.5, z = -1.908, p = .056, r = .21$ .

### 3 CONCLUSION AND RECOMMENDATION

The results indicated that there is no significant difference between male and female students perception on factors influencing academic performance in the polytechnic. It implies that both male and female students perceived complex course content, mode of subject delivery, financial problems, complex curriculum and educational background as the top five factors influencing students' academic performance in the polytechnic in the same way. Findings of this study is in clear disparity with findings of Juma and Simatwa (2014) which perceives gender as a major factor influencing students academic performance. The study however agrees with the study conducted by Goni, (2015) in the study of gender difference in students' academic performance in colleges of Education in Borno state, Nigeria.

The study recommends that students should reflect on their perceptions and expectations of the polytechnic study so that they can improve their chances of having excellent performance in their academics. Lectures should also reflect on their expectations of and about students. Through these processes, students can gain more control over their learning, and lectures can be better informed about ways in which they can enhance students learning in order to achieve an excellent academic performance.

In light of the discoveries of this research, it is suggested that a wider research which will include other departments in the polytechnic should be conducted for generalization purposes.



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