

## **Gender disparity in academic performance of students in the Faculty of Agriculture and Forestry, University of Ibadan, Oyo State**

Adelakun, O. E.

Department of Agricultural Extension and Rural Development, University of Ibadan, Ibadan

**Abstract:** Gender disparity in schooling is observed among younger population in which men perform better than women in certain settings while women outperform men in other settings. This study examined gender disparity in academic performance among faculty of agriculture and forestry students of University of Ibadan. One hundred and fifty respondents were randomly selected from 200, 300 and 400 levels and structured questionnaire was used for data collection. Data were analysed using descriptive statistics such as frequencies and percentages while T-test was employed for inferential statistics. Results show that majority of the respondents were within the active age of 18-26 years (88.0%), single (86.7%) and were from monogamous family (71.3%). Conduciveness of learning environment (0.44) and parental/guardian attention (0.44) were considered by both male and female students respectively as the major factors that affect academic performance. About 45.2% of male students and Female students had positive attitude to education (53.2%) and larger percentage of female students were in 2<sup>nd</sup> class upper division (48.1%). Furthermore, there was a significant difference in the academic performance of male (3.9863) and female (4.5870) students ( $t=6.049$ ,  $p=0.015$ ). The study concluded that female students perform academically better than their male counterparts. Male students should be given optimum attention in gender mainstreaming advocacy.

**Keywords:** Academic performance, gender differences, gender roles, gender mainstreaming, academic performance factors

### **INTRODUCTION**

Gender in common usage refers to the sexual distribution between male and female. Social scientists however refer to the term as a social construction rather than a biological phenomenon (Leonard, Benjamin and Sagary, 2011). Gender differences have become on the hotlist of critical issues around the world. Although, Hausmann *et al* (2009) reported that there is no country in the world that has yet reached equality between women and men in different critical areas such as economic participation or education. Many years ago, people believed it was not “healthy” for women to receive education. Specifically, doctors warned that education redirected blood, initially destined for the ovaries to the brain. The result is that educated women would be less likely to reproduce and more likely to go insane (Sadler, 1999). This particular belief kept many women far from education in the past until around the middle of the twentieth century, when gender differences in intellectual abilities were considered natural or inherently dependent on biological sex differences (Sadler, Sadler and Klein, 1991).

While we see males dealing with complex and difficult tasks of life matters inside and outside the house, we see, on the other hand, girls handling the relatively easy and less demanding tasks or things at home. One of the most important differences observed is that while the male member is allowed to perform several activities concerning the family, female member is restricted from engaging in same chores. For example, parents allow the male member to participate in decision making, and to make little contributions to the house work but females are prevented from participating in decision making; nevertheless, they take the load of home chores. Furthermore, Al-bedour (2004) reported that the status of the mother and the father, the type of work they have, the age and level of education of

parents, and the income of the family, in addition to the number of family members are all reasons that affect the male or female to pursue university education.

Education is one of the social factors where gender disparity is reflected. In earlier days, and especially in traditional African systems, informal education tended to separate girls from boys as the knowledge, skills and values given were extremely sex stereotyped. This trend continued even when education became more formalized, structured and comprehensive. Education of the boy child was given greater importance than that of girls. Although there was a gradual extension of education to the girl child, girls were taught separately from boys, resulting in a predominance of single-sex schools (Al-bedour, 2004). The co-opting of girls into boys schools was adopted over time due to civil pressure and advocacy for the recognition of equal rights of the girl child in education. Although co-education became a normal system in education structures, it aroused intense interest among not only educators but also the public at large (Knight, 1999).

Gender differences in academic achievement have been among the contemporary issues in the current academic debate all over the world (Abdu-Raheem, 2012). In Nigeria, great strides have been made towards achieving gender mainstreaming in education over the past years. This is reflected in the introduction of gender mainstreaming offices in some institutions such that there is increased awareness on gender issues. Although, the common traditional stereotypical beliefs about women performance are that women seem to work less hard than men, and that female students achieve lower scores in school stages in general, and high school in particular, and that girls who fail at school usually get married at early ages. Research has also shown that men perform better than women in certain settings, while women outperform men in other settings (Voyer and

Voyer 2014; Farooq *et al* 2011; Udida *et al*, 2012; and Oluwagbohunmi, 2014). However, Hartley and Sutton (2013) reported that boys develop gender stereotypes where girls are perceived as academically superior with regard to motivation, performance and self-regulation. As a consequence more girls achieve the general qualification for university entrance.

Nevertheless, an understanding of the nature and determinants of gender differences in academic performance is important in itself and because of the fact that educational attainment has an impact on labour market outcomes. Gender differences in labour market outcomes also reflect differences between men and women in the earnings-related attributes they bring to the labour market, including differences in educational achievement. There is evidence, that not only degree but also degree classification impacts on earnings. The study therefore examined the gender dimension to academic performance among students of Faculty of Agricultural and Forestry University of Ibadan with the aim of examining the factors that determine academic performance of male and female students, their attitude towards education and their academic performance.

Hypotheses of the study are stated as follows;

H<sub>0</sub>1: There is no significant difference in academic performance of male and female students in the faculty of agriculture and forestry university of Ibadan.

## METHODOLOGY

The population of the study consisted of 200, 300 and 400 level students of the Faculty of Agriculture and Forestry, University of Ibadan. Multi-stage sampling was used to select respondents for the study. Simple random sampling was used to select five departments out of eight departments in the Faculty of Agriculture and Forestry, University of Ibadan. The lists of 200 to 400 level students in each department were obtained and simple random sampling was used to select ten 10% of male and female students from each level in each department to give a total of 150 respondents comprising 73 male and 77 female students. Data were collected with the use of questionnaires and were analyzed using descriptive and inferential statistics such as frequencies, percentages and T-test. Attitude of respondents towards education was measured using 5-point likert-type scale of strongly agree (SA), agreed (A), undecided (U), disagreed (D) and strongly disagree (SD). This was scored 5, 4, 3, 2, 1 respectively for positive statements and the reverse was scored for negative statements. Also, composite mean of the statements was determined and was used to categorize attitude into positive and negative attitude. Factors that determined academic performance was

measured by asking respondents to indicate with yes or no to the factors that contribute to their academic performance. A score of 1 and 0 were assigned respectively to the responses. The Cumulative Grade Point Average (CGPA) of male and female students was obtained to ascertain their academic performance on gender basis.

## RESULTS

### Personal characteristics of the respondents

Table 1 indicates that 40.7% of the respondents (42.5% male and 38.9% female) were within the age range of 21-23 years, 32.0% (31.5% male and 32.5% female) were between 24-26 years of age, while 1.3% of the respondents (1.4% males and 1.3% females) fell within the age range of 30-32. The mean age was 23 years. As revealed in Table 1, the mean age of 23 years implies that students were in their active year, where they have the capacity to grasp and retain what is being taught which may enhance their academic performance. This is in line with the findings of Dayiolu and Turut-Asik (2004) who stated that younger students in a given class are found to outperform the older counterpart. Age of an individual as it increases usually affects various developmental changes and other areas of human performance. Amuda *et al* (2016) observed that younger students obtain higher grades than older students because of their relative freedom from cares and worries.

As reflected in Table 1, about 61.0 % of female fathers had tertiary education compared to 46.6% of male fathers' respondents. Also, about 37.0% of male respondents' fathers and 26.0% female respondents' father had secondary school education, while (12.0%) (12.3% female and 11.7% male) respondents' father had no formal education. In addition, more than half (58.0%) of the respondents' mothers (54.8% males and 61.0% females) had tertiary education, 24.0% of the respondents' mothers (28.8% male and 19.5% females) had secondary school education, while 12.0% (11.7% female and 12.3% males) had no formal education. This implies more female respondents' fathers and mothers had tertiary education, which may have positive influence on their academic performance. This may be as a result of the parents' knowledge on significance of education. This agrees with the findings of Ozurumba, Briggs, Ebuara and Emanghe (2007) that educational level of the parents has a positive influence on academic performance of children. Better educated parents are likely to provide their children with favourable environment to motivate them to perform well; they visit the school to find out their wards' progress report and assignment records.

**Table 1: Distribution of respondents based on their personal characteristics**

|                  | Male    | Female   | Mean   | Total(%) |
|------------------|---------|----------|--------|----------|
| <b>Age group</b> |         |          |        |          |
| 18-20            | 8(10.9) | 15(19.5) | 23 yrs | 23(15.3) |

|                                    |                  |                  |                    |
|------------------------------------|------------------|------------------|--------------------|
| 21-23                              | 31(42.5)         | 30(38.9)         | 61(40.7)           |
| 24-26                              | 23(31.5)         | 25(32.5)         | 48(32.0)           |
| 27-29                              | 10(13.7)         | 6(7.8)           | 16(10.7)           |
| 30-32                              | 1(1.4)           | 1(1.3)           | 2(1.3)             |
| <b>Fathers' level of education</b> |                  |                  |                    |
| No formal education                | 9(12.3)          | 9(11.7)          | 18(12.0)           |
| Primary education                  | 3(4.1)           | 1(1.3)           | 4(2.7)             |
| Secondary education                | 27(36.9)         | 20(26.0)         | 47(31.3)           |
| Tertiary education                 | 34(46.6)         | 47(61.0)         | 81(54.0)           |
| <b>Mothers' level of education</b> |                  |                  |                    |
| No formal education                | 9(12.3)          | 9(11.7)          | 18(12.0)           |
| Primary education                  | 3(4.1)           | 6(7.8)           | 9(6.0)             |
| Secondary education                | 21(28.8)         | 15(19.5)         | 36(24.0)           |
| Tertiary education                 | 40(54.8)         | 47(61.0)         | 87(58.0)           |
| <b>Total</b>                       | <b>73(100.0)</b> | <b>77(100.0)</b> | <b>150 (100.0)</b> |

Source: Field Survey, 2016

**Figures in parentheses are percentages**

**Marital status**

Figure 1 shows that Majority (89.0%) of the male students were single and 11.0% were married. Among the female students 84.4% were married and 15.6% single.. This suggests that the respondents were not

saddled with many responsibilities that may distract them from their studies or prevent them from performing excellently well. Although Amuda et al (2016) reported that marital status does not significantly predict academic performance, rather ones' commitment, belief confidence and self-efficacy.

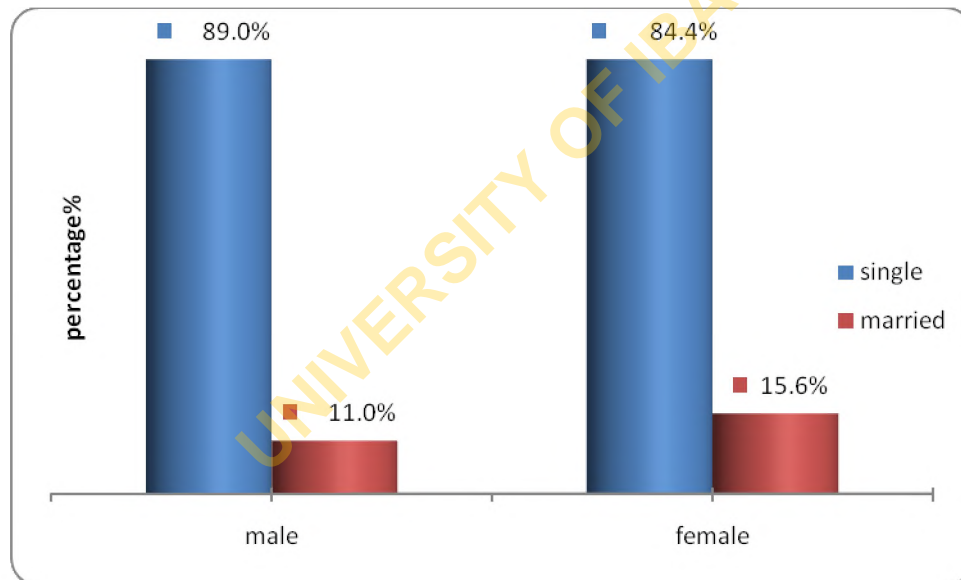


Figure 1: Marital status of Respondents

**Family types**

Figure 2 shows that more female students (72.7%) were from monogamous family compared to 69.9% of male students who were from monogamous family. Also 30.1% male and 27.3% female were from polygamous family. This implies that respondents especially the female students were from monogamous home compared to the male students which may influence their academic performance since they enjoy attention and support of both parents at the same time. This is in tandem with the

opinion of Fagan and Churchill (2012) that children with both parents enjoy parental support financially, socially and receive physical help from their parents. UNICEF (2011) also posited that types of family structure, substantially influence outcomes such as high school drop-out rates as well as academic success, therefore when families are involved in their children's education, children earn higher grades. Furthermore, good academic performance in monogamous family is a result of no external interferences as found by Nato (2016). Parents

in monogamous family were found to offer moral, holistic and basic support as well as motivating their

children to excel in their academics.

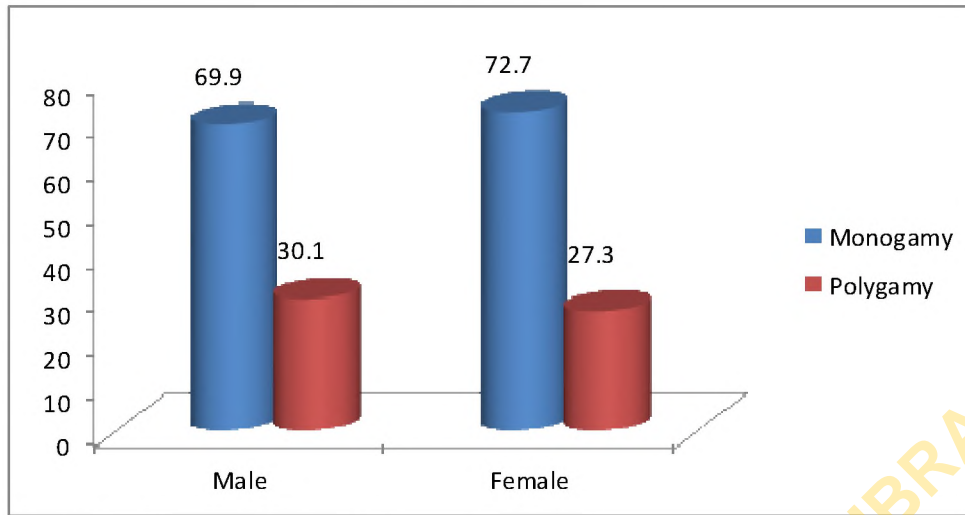


Figure 2: Family types of respondents

#### Respondents' attitude towards education

From the result on Table 2 female students (27.4) appreciate education than trading when compared with their male counterparts (23.3). Also female students (26.4) considered education to be the bedrock of any society more than the male students (24.7). As shown in the result, attending higher institution was not considered a waste of time by female respondents (26.8) as compared with male respondents (24.3). Furthermore, female students' (26.2) assumption that knowledge gained through learning in schools helps to contribute one's quota to the society was high compared to that of male students (24.7).

Furthermore, the result on Table 3 shows that a larger percentage of the female respondents (53.2 %) had

positive attitude towards education while 45.2% male had a positive attitude. According to Guledani (2011), girls and boys have equal opportunities for education, however, disposition towards education could determine the level of interest in schooling and further influence the outcome in terms of performance. The attitude of young boys in recent time has not been satisfying as they express little interest in education and more interest in activities that can produce quick money and this may result in poor academic performance. Furthermore, campaign for girl-child schooling could have resulted in the positive disposition exhibited by the female respondents.

**Table 2a: Distribution of respondents' attitude towards education**

| Attitude Statements  | Male (%)  |           |           |          |          | Mean | Female (%) |          |          |          |          | Mean |
|--|-----------|-----------|-----------|----------|----------|------|------------|----------|----------|----------|----------|------|
|  | SA        | A         | U         | D        | SD       |      | SA         | A        | U        | D        | SD       |      |
| 1. It would have been better for me to learn a trade than come to school   | 8(11.0)   | 5(6.8)    | 10(13.7)  | 19(26.0) | 31(42.5) | 23.3 | 4(5.2)     | 4(5.2)   | 4(5.2)   | 20(26.0) | 45(58.4) | 27.4 |
| 2. When I complete my B.SC I will go into business   | 14 (19.2) | 30 (41.0) | 20(27.4)  | 7(9.6)   | 2(2.7)   | 14.2 | 16(20.8)   | 31(40.3) | 18(23.4) | 6(7.8)   | 6(7.8)   | 15.5 |
| 3. It is a deceit that education is the best legacy  | 13(17.8)  | 12 (16.4) | 10 (13.7) | 19(26.0) | 19(26.0) | 19.8 | 9(11.7)    | 14(18.2) | 2(2.6)   | 18(23.4) | 33(42.9) | 23.3 |
| 4. University education is for those who are highly intelligent  | 24 (32.9) | 21(28.8)  | 9 (12.3)  | 14(19.2) | 5(6.8)   | 14.5 | 25(32.5)   | 34(44.2) | 7(9.0)   | 5(6.5)   | 5(6.5)   | 13.3 |
| 5. Female child is better off in kitchen activities than in classroom  | 4 (5.5)   | 5 (6.8)   | 12(16.4)  | 17(23.3) | 35(48.0) | 24.4 | 4(5.2)     | 5(6.5)   | 2(2.6)   | 29(37.7) | 37(48.1) | 26.8 |
| 6. Education prepares an individual for greater achievement in life.   | 2 (2.7)   | 2(2.7)    | 3(4.1)    | 34(46.6) | 32(43.8) | 10.6 | 4(5.2)     | 5(6.5)   | 2(2.6)   | 29(37.7) | 37(48.1) | 11.8 |
| 7. Agricultural science as a course is meant for male students due to the practical aspect which may be stressful for female students  | 22 (30.1) | 31(42.5)  | 7(9.6)    | 11(15.1) | 2(2.7)   | 13.3 | 27(35.1)   | 29(37.7) | 13(16.9) | 7(9.1)   | 1(1.3)   | 13.1 |
| 8. Knowledge gain through learning in school helps to contribute to ones quota to the society  | 30(41.1)  | 32(43.8)  | 3(4.1)    | 1(1.4)   | 7 (9.6)  | 24.7 | 26(33.8)   | 42(54.5) | 3(3.9)   | 1(1.3)   | 5(6.5)   | 26.2 |
| 9. Female child spends more time in doing domestic work than studying  | 2 (2.7)   | 20(27.4)  | 13(17.8)  | 25(34.2) | 13(17.8) | 16.0 | 6(7.8)     | 14(18.2) | 12(15.6) | 29(37.7) | 16(20.8) | 16.3 |
| 10. Education is the bedrock of any society  | 31(42.5)  | 26(35.6)  | 9(12.3)   | 3 (4.1)  | 4 (5.5)  | 24.7 | 36(46.8)   | 26(33.8) | 8(10.4)  | 4(5.2)   | 1(1.3)   | 26.4 |
| 11. Attending higher institution is a waste of time because, Primary school certificate is sufficient to make someone an important personality in the society as long as you are rich. | 3(4.1)    | 4(5.5)    | 9 (12.3)  | 31(42.5) | 26(35.6) | 24.3 | 1(1.3)     | 6(7.8)   | 8(10.4)  | 26(33.8) | 36(46.8) | 26.8 |
| 12. Our classrooms are conducive enough to motivate learning.  | 3(4.1)    | 21 (28.8) | 13(17.8)  | 24(32.9) | 12(16.4) | 12.0 | 7(9.1)     | 15(19.5) | 10(13.0) | 23(29.9) | 22(28.6) | 11.3 |

**Table 2b: Distribution of attitude of students to education**

| Attitude         | Male |       | Female |       |
|------------------|------|-------|--------|-------|
|                  | F    | %     | F      | %     |
| Negative (46-61) | 40   | 54.8  | 36     | 46.8  |
| Positive (62-84) | 33   | 45.2  | 41     | 53.2  |
| Total            | 73   | 100.0 | 77     | 100.0 |

Source: Field Survey, 2016

**Factors affecting academic performance**

Table 3 reveals that conduciveness of learning environment (0.44) ranked 1<sup>st</sup> of the factors that affect the academic performance of male respondents, childhood training and experience (0.42) ranked 2<sup>nd</sup> while the quality of education obtained and parental attention (0.41) ranked 3<sup>rd</sup>. However, parental attention (0.44) ranked most important factor that influence academic performance of female students, followed by conduciveness of environment (0.43) and childhood training and experience which ranked 2<sup>nd</sup> important factor. The two groups considered engaging in vocational activities (0.27) as the least factor that affect their performance in school so also preference of other siblings by parents. Conducive learning environment can play a

significant role in student's performance. Classroom arrangement, cleanliness, adequate teaching facilities, bright lights can enhance learning experience and improve students' achievement. Moreover, female gender generally tends to adapt to any given condition than the male gender. In addition, parental influence has been identified as an important factor affecting student achievement. The most prominent parental involvement components according to Cabus and Aries (2017) were communication between parents and children regarding school. As reported by Muller (1998) mothers show more involvement in academic issues of their children as compared to fathers. However, fathers show more participation in academics of their male child as compared to female.

**Table 3: Distribution of respondents according to factors that affect academic performance**

| FACTORS  | Male      | Mean | Rank            | Female   | Mean | Rank            | Total     |
|--|-----------|------|-----------------|----------|------|-----------------|-----------|
| Level of truancy   | 55(75.3)  | 0.37 | 4 <sup>th</sup> | 48(62.3) | 0.32 | 7 <sup>th</sup> | 103(68.7) |
| Conduciveness of learning environment  | 66(90.4)  | 0.44 | 1 <sup>st</sup> | 65(84.4) | 0.43 | 2 <sup>nd</sup> | 131(87.3) |
| Family composition(one or two parent family)                                       | 45(61.6)  | 0.30 | 6 <sup>th</sup> | 53(68.8) | 0.35 | 5 <sup>th</sup> | 98(65.3)  |
| Parental level of income   | 54(73.97) | 0.36 | 5 <sup>th</sup> | 53(68.8) | 0.35 | 5 <sup>th</sup> | 107(71.3) |
| Quality of secondary education obtained  | 61(83.6)  | 0.41 | 3 <sup>rd</sup> | 64(83.1) | 0.42 | 4 <sup>th</sup> | 125(83.4) |
| Childhood training and experience  | 64(87.7)  | 0.42 | 2 <sup>nd</sup> | 65(84.4) | 0.43 | 2 <sup>nd</sup> | 129(86.0) |
| Involvement in extra curricula activities (e.g. church mosque or sport activities) | 45(61.64) | 0.30 | 6 <sup>th</sup> | 41(53.2) | 0.27 | 9 <sup>th</sup> | 86(57.3)  |
| Parental/guardian attention  | 61(83.67) | 0.41 | 3 <sup>rd</sup> | 66(85.7) | 0.44 | 1 <sup>st</sup> | 127(84.7) |
| Engage in vocational activities  | 40(54.8)  | 0.27 | 9 <sup>th</sup> | 41(53.2) | 0.27 | 9 <sup>th</sup> | 81(54.0)  |
| Preference of other siblings by parent   | 42(57.5)  | 0.28 | 8 <sup>th</sup> | 44(57.1) | 0.29 | 8 <sup>th</sup> | 86(57.3)  |

Source: Field survey, 2016

**Respondents CGPA**

The Table 4 below reveals that there were more male (6.8%) in the 1<sup>st</sup> class category than female (6.5%); however, a larger percentage of female respondents (48.1%) were within the 2<sup>nd</sup> class upper category compared to the male respondents (28.8%) in the same category. Furthermore, 45.3% of the respondents (49.3% male and 41.6% female) were on

2<sup>nd</sup> class lower while 9.3 % of the respondent (15.1% male and 3.9% female) were on 3<sup>rd</sup> class. This implies that a little percentage of both male and female were on first class, although there were more male respondents than female respondents, however, there were more female students on 2<sup>nd</sup> class upper grade compared with male students. This suggests that female students were better positioned academically

than their male counterparts, less distraction and girl child advocacy may be responsible for this. This is in tandem with the findings of Amuda, Domiya and

Durkwa (2016) which revealed that girls tend to perform equally with boys and sometimes better.

**Table 4: Distribution of respondents according to CGPA**

| CGPA                                  | Male Frequency (%) | Female Frequency (%) | Total Frequency (%) |
|---------------------------------------|--------------------|----------------------|---------------------|
| Pass (1.0-1.5)                        | 0 (0.0)            | 0 (0.0)              | 0 (0.0)             |
| 3 <sup>rd</sup> class (1.6-2.5)       | 11 (15.1)          | 3 (3.9)              | 14 (9.3)            |
| 2 <sup>nd</sup> class lower (2.6-4.5) | 36 (49.3)          | 32 (41.6)            | 68 (45.3)           |
| 2 <sup>nd</sup> class upper (4.6-5.9) | 21 (28.8)          | 37 (48.1)            | 58 (38.7)           |
| 1 <sup>st</sup> class (6.0 and above) | 5 (6.8)            | 5 (6.5)              | 10 (6.7)            |

**Hypothesis of the study**

**There is no significant difference in the academic performance of male and female students.**

The result in Table 5 reveals a significant difference in the academic performance of male and female students ( $t=6.049$ ,  $p=0.015$ ) in the study area.

**Table 5 Significant difference in the academic performance of male and female students**

| Sex    | df | Mean   | Mean difference | t-value | p-value | Decision | Remark |
|--------|----|--------|-----------------|---------|---------|----------|--------|
| Male   | 73 | 3.9863 | -0.60071        | 6.049   | 0.015   | S        | Accept |
| Female | 77 | 4.5870 |                 |         |         |          |        |

The result in Table 5 affirms that female students perform better academically than male students with female students having higher mean score than their male counterparts. Thus the null hypothesis is accepted. This may be as a result of female ability to work harder, attend class more frequently and possession of better study skill than their male counterparts (Leonard and Jiang (1999); Wainer and Steinberg (1992)). A similar result was reported by Farooq et al. (2011) and Voyer and Voyer (2014) in which female students performed significantly better than their male counterparts. However, the result disagreed with the findings of Awofala(2012), Udida et al. (2012) and Oluwagbohunmi (2014).

**CONCLUSION AND RECOMMENDATION**

Based on the findings of the study, it can be concluded that majority of the respondents were within their active and receptive age. More female students were from monogamous family having fathers and mothers with formal education. Male respondents considered conduciveness of the learning environment as the most important factor that affects academic performance while, parental/guidance attention was the major factor that influence the academic performance of female respondents in the study area. Also, female students had a positive attitude to education compared to male students. A larger percentage of male students were on 2<sup>nd</sup> class lower grade while more female students were on 2<sup>nd</sup> class upper grade. Female students

perform significantly better than male students in the study area.

From the findings of the study the following recommendations were made;

1. Male students should be accorded adequate attention in gender mainstreaming activities.
2. There should be a forum of parent-lecturer interaction to check students' performance.
3. Conduciveness of learning environment should be considered a priority in learning institutions.

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