

# COMPARATIVE ANALYSIS OF MALE AND FEMALE STUDENTS' ACADEMIC PERFORMANCE IN FINANCIAL ACCOUNTING: A SURVEY IN THE CAPE COAST METROPOLIS

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**Abstract:** This study compared the academic performances of male and female students in WASSCE Financial Accounting paper in two selected schools in the Cape Coast Metropolis. The study adopted the descriptive analytical design. The census method was used to include all 761 Senior High School students who sat for the 2013 to 2016 WASSCE Financial Accounting papers. Descriptive statistics (mean and standard deviation) were used to address the research questions and inferential statistic (independent samples t-test) was used to test the hypothesis. The study found out that students' had average academic performance in financial accounting over the four year period. The results further showed that the trend in students' academic performance had not been stable over the periods under study. Finally, the study revealed that there was no statistically significant difference in the academic performance of male and female Financial Accounting students in Financial Accounting. It was recommended that Financial Accounting teachers should engage their students with more academic exercises. Also, better innovative ways should be adopted in teaching students to heighten their interest in the subject. School heads are to ensure that qualified and competent Financial Accounting teachers are employed to teach the subject. In addition, frequent seminars should be organised for the teachers to keep them abreast with current knowledge explosion in the subject as well as innovative ways of teaching the subject.

**Keywords:** Academic performance, Financial Accounting, Gender, West Africa Senior School Certificate Examination (WASSCE).

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## 1. INTRODUCTION

### 1.1 Background to the Study

Financial Accounting as a course studied in the Senior High Schools (SHS) and institutions of higher and advanced learning, is seen as a practice and a body of knowledge concerned with the method for recording transactions, keeping records, performing internal audit, analysing and reporting financial information to management, and advising on taxation matters (Morgan, 1997). The importance of Accounting in any educational system cannot be over emphasised because Accounting serves as the financial backbone to any self-respecting business as opined by the Kaplan Business School in Australia.

Academic differences in participation and academic performance between male and female students were found in several different subjects examined at the secondary school level (Wamdeo, 2003). Gender has been found to influence the academic performance of male and female students, and has in turn called the attention of institutions of higher learning, governments and individuals in recent times, to investigate the extent to which gender influences academic performance.

Studies (Gracia & Jenkins, 2003; Black & Duhon, 2003; Bagamery, Lasik & Nixon, 2005) have identified gender as one of the factors that explain academic performance of students, but research results regarding which gender group performs better than the other have not yielded conclusive results.

Traditionally, male students' academic achievement was considered superior to that of female students, especially in Mathematics and Science, because of their higher levels of innate spatial abilities (Benbow & Stanley, 1980). At the same time, female students' performance was placed above their male counterparts in language because of their greater verbal and reasoning abilities (Wilberg & Lynn, 1999). Estronaut (1999), however, highlighted that, studies that have found a gap between men and women's cognitive abilities have also found much overlap in their results. They observed that a man can grasp the skills of language just as well as a female. Similarly, many women excel in spatial skills just as well as their male counterparts. In the early stages of investigations into gender academic achievement gap, biological differences between male and female students, and childhood socialization were identified as the major contributing factors.

A study by Simmons (2010) to examine differences between male and female African American high school students revealed no significant difference in male and female student performance. Another study conducted by Bitrus, Dominya, and Hannatu (2016) to determine the gender difference in academic performance in SSCE economics subject among senior secondary school students revealed that there was no significant gender difference.

Comber and Keeves (cited in Awoniyi, 2001) found that almost always the boys did better than girls in science subjects in the worldwide survey. Other studies including that of Kelly (cited in Awoniyi, 2001) have supported these general findings which also indicate a drift away from the sciences in the middle year of Secondary Education as far as girls are concerned, together with a lowering of attainment compared with boys. A study conducted by Musa, Dauda and Umar (2016), to investigate gender difference in performance in English Language and Mathematics of SHS students in Borno state, Nigeria, revealed that male students performed significantly better than female students in English Language and overall academic performance but there was no gender difference in Mathematics.

It is interesting to note that, empirical results on this issue have not been consistent. Whilst some studies (Halpern, 2000; Battal, 2012) revealed that female students outperform their male counterparts, other studies revealed the opposite (Astur, Ortiz & Sutherland, 1998; Willingham & Cole, 1997) and others still show no significant differences (Canlar & Bristol, 1988). Sam (2016) investigated the factors that may lead to such differences in academic performances of male and female students. Some factors that have been revealed include biological differences, innate differences, out of school factors, and inside school explanations.

Gender studies tend to have implications to support research, curriculum enrichment and redesign, future teaching methods, and the academic study of gender across all disciplines. In the educational setting, results of researches conducted to compare male and female students' performance inform much about which gender group is failing or succeeding in the discipline under study. The results from gender studies influence teaching methods as subject instructors also play major roles in students' performances.

Williams (1991, p.12) asserts that "Researching gender performance is like building a wall. No single study provides the whole wall – just one of the bricks". This study is, therefore, intended to add to the building blocks of understanding gender performance in accounting education and it will focus on analysing the performance of male and female accounting students in the WASSCE in the Cape Coast Metropolis.

The introduction of paper contains the nature of research work, purpose of work, and the contribution of this paper. It contains the references of the previous work done. This template is in Word document, provides authors with most of the formatting specifications required by the author for preparation of their research paper.

## 1.2 Statement of the Problem

Gender has long been considered as a factor contributing to differences in performances of male and female students in all cycles of learning (De Laine, 2000). Educators and researchers have expressed a lot of interest concerning gender difference in academic performance in various disciplines of which Accounting is not left out (Haynes, 2008). Whilst some studies (Halpern, 2000; Battal, 2012) reveal that female students outperform their male counterparts, others reveal the opposite (Astur, Ortiz & Sutherland, 1988; Willingham & Cole, 1997) and others still show no significant differences (Bitrus, Dominya & Hannatu, 2012).

Adu and Oshati (2014) have noted that there is the need to continuously evaluate the trends of the performance of students. This assertion by Adu and Oshati means that, even though the academic performance of male and female students might be determined, a trend of the academic performance must be established to indicate whether an increase or a decrease has resulted in the academic performance of the male and female students over the years being studied. Though studies have been conducted to examine the differences in academic performance of male and female students and the factors which affect their performance (Kimura & Hampson, 1994; Sam, 2016), the trend of academic performance of Accounting over the years, has somehow not been delved much into. It is against this that this study was conducted to determine gender differences in academic performance of students in Financial Accounting in WASSCE, in selected schools in the Cape Coast Metropolis, Ghana, with particular reference to grades obtained by male and female students in Financial Accounting, for a four year period (2013-2016).

### 1.3 Purpose of the Study

The main purpose of the study was to compare the academic performance of male and female students in Financial Accounting over a four-year period (2013-2016). Specifically, the study sought to;

1. Identify the academic performance of male and female students in the WASSCE Financial Accounting paper for the four-year period under study.
2. Establish the trend that exists in male and female students' academic performance in financial accounting in the selected schools in the Cape Coast Metropolis.
3. Determine whether significant differences exist in the academic performance of male and female students in Financial Accounting.

## 2. CONCEPTUAL REVIEW AND EMPIRICAL REVIEW

### 2.1 Concept of Gender

Gender is a specially constructed phenomenon that is brought about as society ascribes different roles, duties, behaviours, and mannerisms to the two sexes (Mangvwat, 2006). It is a social connotation that has sound psychological background, and it is used to refer to specific cultural patterns of behaviour that are attributed to human sexes. Gender, according to Lahey (2003), is a psychological experience of being a male or female. It has to do with personality and central components of self-concept. Unlike sex, which is concerned with, only the distinction between male and female based on biological characteristics, gender encompasses other personality attributes as roles, orientation and identity based on individual's conceptualisation of self.

Singh (2010) opines that gender refers to a socio-cultural construct that connotes the differentiated roles and responsibilities of men and women in a particular society. This definition implies that gender determines the roles which one plays in relation to general political, cultural, social and economic system of the society. According to Betiku (2002), gender refers to all the characteristics of male and female, which a particular society has determined and assigned each sex.

Avulata and Oniyama (1999) once described gender stereotype in school as "hidden curriculum" which send out messages to girls to conform to role expectation. In most societies, gender has roles based on the women folk, preventing their participating in, and benefiting from development efforts (UNESCO, 2000). This has created a big psychological alienation or depression in the minds of the female students (Joel & Aride, 2006). As a result, boys dominate Social Studies, Chemistry, Physics, Mathematics and Environmental studies classes while the girls go into reading languages and Arts. This presupposes that male students are likely to be seen to outperform their female counterparts in Financial Accounting. This study, therefore, compares the academic performance of the two genders over a four-year period in order to confirm or disprove this assertion or notion.

### 2.2 Concept of Academic Performance

Performance is the accomplishment of a given task or operation seen in terms of how successfully it is performed. Academic achievement represents performance outcomes that indicate the extent to which a person has accomplished specific goals that were the focus of activities in instructional environment, specifically in school, college, and university. School systems mostly define cognitive goal that either apply across multiple subject areas or include the acquisition of

knowledge and understanding in specific intellectual domain. Therefore, academic achievement should be considered to be a multifaceted construct that comprises different domains of learning. Hoyle (1986) argued that schools are established with the aim of imparting knowledge and skills to those who go through them, the idea of which is to enhance good academic performance.

Joel, Kpolovie, Osonwa, and Iderima (2014) view academic performance as the achievement of the student in terms of aggregates obtained in a test or examination in specific subjects that cover a given academic programme. Academic achievement which is synonymous to academic performance or academic attainment means the extent to which a student, teacher or institution has achieved their short or long term educational goal. Academic achievement is commonly measured through examinations or continuous assessments but there is no general agreement on how it is best evaluated or which aspects are more important. Academic achievement defines whether one can take part in higher education, and based on the educational degrees one attains influence one's vocational career after education.

Academic achievement is important because it prepares students for future careers. It also allows students to enter competitive field as one would need higher levels of education to tackle the technological demanding occupations of the future. Academically successful adolescents have higher self-esteem, have lower levels of depression and anxiety, are socially inclined, and are less likely to abuse alcohol and engage in substance abuse. Individuals, who are better organised, better prepared and have an organisational plan, and who also did better in school will continue to be like that in their career.

### **2.3 The Nature of WASSCE Financial Accounting Paper**

The standard Accounting examination paper generally consist of fifty (50) multiple choice questions of which all are to be answered, four (4) theory of which two are to be answered and five (5) practical questions from which three are to be answered. Students generally take the test in May/June in the various senior high schools in Ghana and West Africa as a whole because the tests are standardized in construction, administration and scoring. Answer sheets are marked and graded objectively by WAEC; seventy percent (70%) of the scores are taken in addition to thirty percent (30%) from the students' cumulative assessment from their various schools. This forms a total of 100% to which are assigned the letters A1, B2, B3, C4, C5, C6, D7, E8 and F9. Thus the results of the students selected were based on this pattern of scoring and grading of the WASSCE they took in the years under review.

### **Empirical Review**

The empirical review also considered related works conducted by other researchers in the area of academic performance of male and female students. Works by researchers like, Okafo and Egbon (2011), Kyei, Apam and Nokoe (2011), Olaewe (2012), Bitrus, Dominya, and Hannatu (2012) who studied and analysed gender and academic performance in various geographical areas and in various fields of study were reviewed.

### **Academic performance of male and female students**

In the Upper East Region of Ghana, Kyei, Apam and Nokoe (2011) conducted a study on gender differences among SHS students in mathematics examination. The purpose of the study was to examine whether differences existed between gender performances in the mathematics field. The researchers employed the descriptive design in their study. Data was obtained using the stratified multistage sampling. The main tool for the collection of data was questionnaire and a sample size of 250 students was considered and chosen using the proportional allocation.

The results of their work indicated that, out of 112 girls who were captured in the sampling, 73 of them representing 29.20% responded that male students performed better in mathematics examination. 39 out of the 112 girl, representing 15.6% stated that there existed differences in mathematics performance of male and female students. 47.20% agreed that there is gender difference, and that the male students performed better than their female counterparts. Although the researchers came up with a conclusion, their conclusion was based on the perception of people who gave mere opinion about the academic performance of male and females. Also, the researchers didn't consider any test scores of the students but based only on the students' responses.

In another study in the Northern Region of Ghana, Olaewe (2012) investigated gender differential in academic performance in mathematics among SHS students in the Tamale Metropolis of Northern Ghana. The researcher used the survey research design model on a target population of all SHS 3 students and Mathematics teachers in both public and

private schools whereby 50 objective questions taken from the past WASSCE between 2007 and 2011 was personally administered on students by the researcher. Spearman rank correlation coefficient, multiple regression and Analysis of Variance were used to analyse data. Also, sample grades of students were collated from their WASSCE results from 2006/2011.

It was revealed using the self-constructed 50 objective tests that, among the entire SHS students the questions were administered to, the males performed better. This showed that the male students are better than the female students in terms of academic performance; however, just 50 objective tests made for the respondents to measure their academic performance, cannot be enough to show how best students perform in the subject. The study revealed that the male students were performing better than the female students in Mathematics. Although the result favoured the male students outperforming the female, this result might have only been the case for the northern region of Ghana.

Bitrus, Dominya, and Hannatu (2012) researched on gender difference in academic performance in SSCE Economic subject among Senior High School students in Maiduguri Metropolis, Borno State, Nigeria. In their study, gender difference was examined retrospectively against academic performance, with a view to establishing a link between them. Results of students' SSCE exam in Economic from 2006/2007 to 2009/2010 sessions were used for the study. The data collected was analysed in percentages, mean and independent sample t-test statistics. Before the computation of independent t-test statistic, student grade were re-ordered and subjected to square root transformation.

The findings of the study indicated that for male students, the percentage high grade scored was B2 (92.9%), B3 (81.5%), C4 (67.2%) and C5 (73.4%), while the female percentage high grade scored was B2 (37.5%), B3 (35.7%), D7 (41.4%), and E8 (40.2%). The methodology used in this work is similar to the research method of this work, and the results obtained from comparing gender differences in Economics could yield a different result when Accounting is considered the subject of study.

#### **Trend of academic performance of male and female students**

To examine the trend of male and female academic performance, Asigri, Smith, Ackah and Kuffour (2013), undertook a study of the performance of boys and girls in Economics in some selected senior high schools in Cape Coast. The designs used in their research work was descriptive cross-sectional. The target population was students in four selected senior high schools who studied Economics where 160 students and 4 teachers were selected from each of the four schools using convenient random sampling, systematic random sampling, stratified random sampling and purposeful sampling technique. The researchers made use of the WASSCE results from 2007 to 2012. The researchers used compound bar chart in presenting the information from the data gathered from the WASSCE results of the male and female students in economics over the stated period (2007-2012). They used the entry requirement of the standards of University in the country to categorize male students into Pass (A1-C6) and Fail (D7-F9).

The researchers came out with informed findings that in 2012, male students recorded 95.7% pass whereas female students recorded 81.7%. In the year 2011, males recorded 91.1% pass whereas females recorded 77.4%. In 2009, male students recorded 93.3% pass and female students recorded 79.7% pass. In 2008, male students recorded 77.6% pass and female students recorded 60.9% pass.

In 2007, male students recorded 45.2% pass and female students recorded 60.3% pass. This means that in 2012, 2011, 2009 and 2008, the academic performance of male students was better than that of female students whereas in 2007, female students performed better than males. In general, it seems male students performed better than female students but there is inconsistency with the trend of the performance over the years. Their research concluded that differences exist but the difference is not significant to conclude that one gender was performing better than the other.

Researchers presented results obtained from 2007-2012 on a compound bar chart but could have used the compound line graph since academic performance in a subject is being measured over a period of time. The line graph is a more appropriate way of representing the data as compared to the bar chart used. The line graph also showed inconsistencies in the academic performance over the years at a glance as compared to the bar chart.

In the study conducted by Bitrus et al. (2012), the findings of their study over a five year period indicated that, the male students consistently scored high grades in distinction and credit than female students from 2006-2010 sessions in Economics. This trend however contradicts with the trend established by Asigri et al. (2013). It could be derived from this



that the population of the study can be the reason backing the differences in the findings. A strong case could then be argued that the trend might change when the content of subject is changed to Accounting.

Concerning also the trend of performance, Chukwugbo (2007) tried to find out gender and performance in accounting education at FCE (T), Umunze Anambra State. The study analysed representation and performance of male and female Accounting students in five academic sessions of 2000/2001, 2001/2002, 2002/2003, 2003/2004 and 2004/2005. Students' raw scores were used for the study. The population of the study was final year accounting students within the five sessions. The total population was six hundred students and there was no sampling. Raw scores of students graded into distinction (D), credit (C), merit (M) and Pass (P) were used for data. The scores were authenticated by appropriate authorities of the college (the academic board and the examination and records office/unit).

This study revealed that in the five academic sessions, females performed better at distinction and credit level while males cluster more at merit and pass. The male students' representation is small. It was found that male students are near extinction in the programme. It was also found that female students performed better than the males generally. It was concluded that if care is not taken to check the trend, males may go into extinction in the programme.

### **Significant difference in the Academic performance of male and female students**

To investigate statistically significant differences in male and female students' performance, Okafo and Egbon (2011) researched on the academic performance of male versus female Accounting undergraduate students in Nigeria. The study was to compare the academic performance of male and female students in the introductory Financial Accounting course. First year male and female accounting undergraduate students of the University of Benin, Nigeria, who sat for

Introductory Financial Accounting courses namely, Introduction to Financial Accounting I & II in 2004/2005 to 2007/2008 academic sessions were used for the study. The letter grades of A, B, C, D, E, and F were assigned weights of 5, 4, 3, 2, 1 and 0 respectively and used as a measure of academic performance. The t-test statistics for differences between two independent samples was adopted for the study.

The study revealed that the male students performed better than the female students. It further showed a significant difference between the academic performances of male and female students at 5% significant level for the test results for 2005/2006 (first semester course) session. Same students had no statistical differences in the second semester course that is the test result for 2005/2006 academic session. Their final results showed no significant differences in the academic performance of the sexes. Having considered students from only one academic institution (University of Benin) in the country for the research, the findings can be attributed to only a small fraction of accounting students in the country because each University sets its own questions to examine its students on a course. Their findings can therefore not be generalized for the country (Nigeria) as a whole.

Sam (2016) also in a bid to investigate gender differences in academic performance of Financial Accounting students conducted a study in the Central Region of Ghana. The study adopted descriptive survey design to enable the researcher determine the relationship between male and female student academic performance in Financial Accounting. Data from the terminal reports of third year Financial Accounting students collected from the researcher-developed questionnaire was analysed using both descriptive and inferential statistics (t-test).

Findings of the study revealed that the mean and standard deviation of the performance of male Financial Accounting students were  $M = 53.46$  and  $SD = 22.36$ , which was higher than the mean and standard deviation of  $M = 52.00$  and  $SD = 15.63$  of the female Financial Accounting students. This indicates that male students perform significantly better than the female students in Financial Accounting. In addition to the terminal results obtained, teachers' views were also sought, and this might have led to subjectivity in their responses.

Again in the Cape Coast Metropolis, Awuku (2014) researched sex differences in Mathematics performance based on 2011 and 2012 WASSCE Core Mathematics results in some selected senior high schools. The purpose of the study was to determine whether the performance of male students in Core Mathematics differed in any significant way from their female counterparts, by using the descriptive sample survey design. The study sampled from all students who wrote the 2011 and 2012 WASSCE in Core Mathematics in Cape Coast, using random sampling method and obtained a sample size of 2487. Male students represented 48.89% (1216 out of 2487) and female students 51.11% (1276 out of 2487). The analysis of data was conducted using an independent sample t-test. An alpha level of 0.05 was chosen in the study in order

to get a balance between type I and type II error. Where the p-value  $> 0.025$ , the difference was considered to be significant and where the p-value  $< 0.025$ , the difference was deemed significant.

The study found that male students in the mixed schools out performed female students in Core Mathematics in 2011 and 2012 WASSCE, whereas in these same years, female students in the single sex schools outperformed their male counterparts in single sex schools in Core Mathematics. In general, the study found no significant difference between male and female students Core Mathematics performance in 2011 and 2012 WASSCE results in the selected schools. Thus there is a sex difference but the difference was not significant. The single sex schools chosen had an influence on the sample leading to female students having a greater percentage of the sample and this could influence the outcome of the findings. The two years studied cannot provide a general conclusion for the differences in performance of male and female students.

### 3. RESEARCH METHODOLOGY

#### 3.1 Research Design

The purpose of the study was to compare the scores of male and female students in Financial Accounting in WASSCE in two selected schools in the Cape Coast Metropolis, Ghana. The research design adopted was the descriptive analytical research design. According to Best and Kahn (2007), descriptive research employs the process of disciplined inquiry through the gathering and analysis of empirical data, and an attempt to develop knowledge. It can also describe categories of information such as gender. Descriptive research involves gathering data that describe events and then organises, tabulates, depicts and describes the data collection (Glass & Hopkins, 1984). According to Burns and Grove (2003), descriptive analytical research is designed to provide a picture of a situation as it naturally happens. It may be used to justify current practice and make judgment and also to develop theories.

In order to obtain a picture of male and female accounting students' academic performance in WASSCE from the years 2013 to 2016, the descriptive analytical research design was used in order to determine if any significant differences exist between them. This design was also adopted, to enable the researchers justify or debunk the notion of male students perform academically better than their female counterparts in Financial Accounting.

#### 3.2 Population

The population for the study was all students who sat for WASSCE Financial Accounting paper for the years 2013, 2014, 2015 and 2016 in two selected senior high schools; University Practice Senior High School (UPSHS) and Academy of Christ the King (ACK), in the Cape Coast Metropolis. The total number of students was 761. Table 1 indicates the population distribution of the students.

**Table 1: Population Distribution of Respondents**

Year	UPSH S		Total	AC K		Total
	Male	Female		Male	Female	
	92	51	143	122	57	179
2014	46	27	73	38	18	56
2015	43	32	75	42	28	70
2016	59	27	86	46	33	79
Total	240	137	377	248	136	384

Source: Field data, 2017.

#### 3.3 Sample and Sampling Procedures

In all, the sample size for the study was 761. Two schools were selected using the simple random sampling technique. The census method of data collection was used to include all students from the two selected schools who sat for the WASSCE accounting paper from 2013 to 2016. Census involves a study of every unit or everyone in a population. This method was adopted since there was no sampling of the students who sat for the WASSCE Financial Accounting paper for the years under study. According to the Australian Bureau of Statistics (2013), the use of the census method proves advantageous because it provides a true measure of the population; that is, there is no sampling error.

#### 3.4 Sources of Data

This study made use of secondary data (see Appendix A and B) in the form of the scores of students from WASSCE score sheets obtained from the selected schools for the years 2013-2016. Secondary data analysis can save time that would otherwise be spent on collecting data. It can also provide larger and higher quality databases that would be unfeasible for any individual researcher to collect on their own. Some problems of secondary data are that, the data obtained may be out of date or inaccurate. Also administrative data which were not collected for research purposes may not be available in the usual research formats, or may be difficult to get access to. In that, the results of the male and female students who wrote the Financial Accounting WASSCE paper had already been obtained and categorised by the school administration, according to the grades scored by the students.

### Data Collection Procedures

The raw data of students in Financial Accounting categorised under male and female students were obtained directly from the WASSCE result sheets for the years 2013-2016 from heads of the of the selected schools. These were used as a measure of academic performance.

### Data Processing and Analysis

In order to address the research questions that guided the study, the data that was obtained from the schools was coded and entered into a software, Statistical Package for Social Sciences (SPSS), to process the data. A combination of descriptive and inferential statistics, were used to analyse the data to provide results. The data on the demographic characteristics of the respondents were analysed with the use of frequencies and percentages. Research question one sought to determine the academic performance of male and female students in Financial Accounting WASSCE, where means and standard deviations were used to analyse the data. For research question two, which sought to identify the trend of performance, the means were used in the analysis and the results represented on a line graph to address the research question. The hypothesis focused on determining whether there is a statistically significant difference in the academic performance of male and female students in Financial Accounting for the years 2013-2016 and was analysed with the use of independent samples t-test.

## 4. RESULTS AND DISCUSSION

### 4.1 Demography of Respondents

The only demographic variable that was collected was the gender of the Financial Accounting students. This was meant to give a clear indication of the total number of male and female students who sat for the exams in the years, 2013, 2014, 2015 and 2016. The results that were obtained are presented in Table 2.

**Table 2: Characteristic of Respondents**

	2013	2014	2015	2016
Year Gender	N (%)	N (%)	N (%)	N (%)
Male	214 (66)	84 (65)	85 (59)	105 (64)
Female	108 (34)	45 (35)	60 (41)	60 (36)
Total	322 (100)	129 (100)	145 (100)	165 (100)

Source: Field data, 2017.

In 2013, the total number of students who sat for the WASSCE in the two schools was 322, which included 214 (66%) male students and 108 (34%) female students. From Table 2, 2013 recorded the highest number of students who sat for the exam as compared to the other years under study because two year groups sat for the exam. The reason for this was that the education system at the time was changed from the four-year Senior High School education to three years due to changes in government policies. The number of students who sat for the exam in the respective years are as indicated in the table. From 2013 to 2014 the male students recorded one percent (1%) decrease in their number and the number of female students had one percent increase (1%). From 2014 to 2015 male students recorded a 6% decrease in the number and the number of female students also increased by 6%. From 2015 to 2016, the number of male students increased by 5% and the number of females also decreased by 5%.

It is evident from all the respective years studied that the male students dominated. Out of a total population of 761 from both schools, the male students represented 488 and the female students represented 273, showing clearly that there are



more male students reading Financial Accounting than female students in the schools under study. The dominance of the male students means that more male students are likely to be found in the Accounting profession than that of the female. This is likely to communicate to external observers such as students that Financial Accounting is basically a male oriented programme and therefore discourage more of the female from taking Financial Accounting seriously.

#### 4.2 Main Results

**Research Question One: What are the academic performances of male and female students in WASSCE Financial Accounting paper for the four year period under study?** The research question was to determine the academic performance of male and female students in WASSCE for the Financial Accounting paper for the four year period under study. Data was collected on students' scores in Financial Accounting with respect to the four year period and was analysed with the use of means and standard deviations. Table 3 presents the results that were obtained.

**Table 3: Academic Performance of Gender in Financial Accounting**

Variable	Gender	Mean	SD
Score 2013	Male	53.74	14.73
	Female	51.53	13.57
Score 2014	Male	46.51	15.76
	Female	49.02	13.29
Score 2015	Male	53.51	19.65
	Female	54.52	20.66
Score 2016	Male	49.95	20.01
	Female	51.83	19.78
Mean of Means/ASD		51.33	17.18

Source: Field data, 2017.

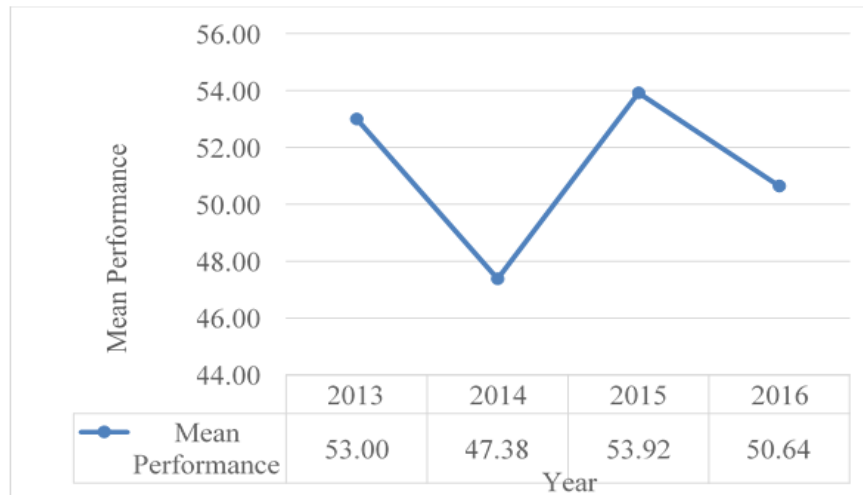
For the academic performances of the male and female accounting students for the years, the standard performance set to compare their performances was C5 (50-54). Based on this standard set, in 2013, both male students ( $M = 53.74$ ,  $SD = 14.73$ ) and female students ( $M = 51.53$ ,  $SD = 13.57$ ) had an average performance. For 2014, the performance of the male students ( $M = 46.51$ ,  $SD = 15.76$ ) and the female students ( $M = 49.02$ ,  $SD = 13.29$ ) was below average. Their average academic performance fell from the standard of C5 (50-54) to C6 (45-49). Also in 2015, the performance of male students ( $M = 53.51$ ,  $SD = 19.65$ ) and that of female students ( $M = 54.52$ ,  $SD = 20.66$ ) was an average performance. The academic performance of male students in 2016 ( $M = 49.95$ ,  $SD = 20.01$ ) was below average to be within the range of C6 (45-49) and that of the female students ( $M = 51.83$ ,  $SD = 19.78$ ) was average.

It can be seen from the mean of means ( $M = 51.33$ ) and average standard deviation ( $SD = 17.18$ ) of the academic performances of the male and female students for all the years that their academic performances fell within the average range. The overall mean ( $M = 51.33$ ) of the performance of male and female Financial Accounting students which also falls within C<sub>5</sub> (50-54), that is, the average mark or the standard set. This indicates a discouraging average academic performance for the four years under study because university entry requirement for an Accounting programme is A<sub>1</sub>. This level of performance might be due to fear for the subject by students as difficult.

The mean performance of the male students for the four years under study was 50.93, and the mean performance of the female students for the four years was 51.73, which seems to suggest that the female students on the average performed better than their male counterparts in Financial Accounting. Higher female average academic performance in Financial Accounting could seem to suggest that the female students perceive the course to be more difficult and involving much calculation, hence they tend to study hard to be well versed with the content of the subject, whereas the male students might be relaxed in the subject.

**Research Question Two: What trend exists in Financial Accounting performance for the four years under study?**

The purpose of this research question was to establish the trend in the Financial Accounting students' academic performance for the four years under study in the selected schools in the Cape Coast Metropolis. The statistical tool used to analyse the data to address the research question was the mean and the trend clearly represented on a line graph. Figure 1 shows the trend of students' academic performance in the Financial Accounting paper over the four year period under study.

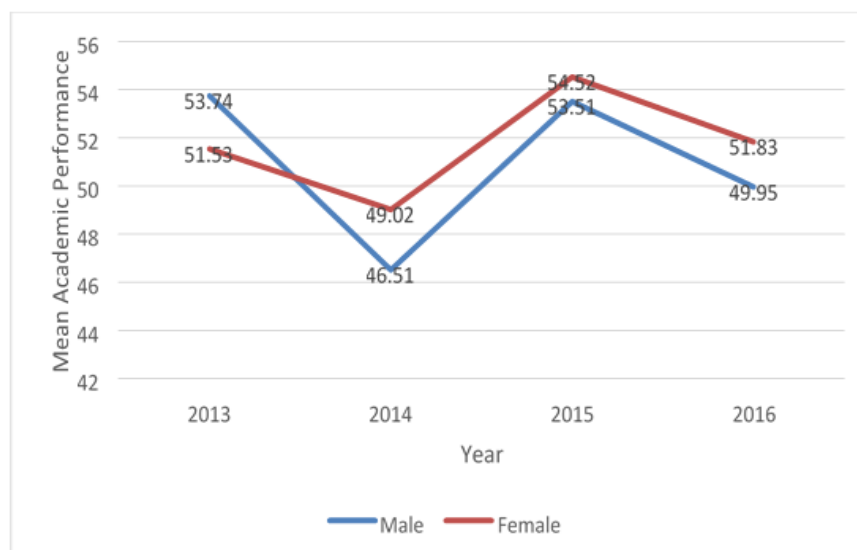


**Figure 1: Trend in academic performance in financial accounting**

Source: Field data, 2017.

From Figure 1, it can be seen that the mean performance ( $M = 53.00$ ) of the students recorded in 2013 was higher as compared to the mean performance ( $M = 47.38$ ) of 2014. This indicates a fall in average of 5.62, representing a percentage fall of 10.6%. Comparing the mean performances obtained in 2014 and 2015, average performance increased from 47.38 to 53.92, representing an increase of 6.54 (13.8% increase). Also from 2015 to 2016, average performance decreased from 53.92 to 50.64 representing a decrease of 3.28 (6.08%).

Looking at the trend of performance of Financial Accounting students over the four years under review, the trend fluctuates, as it increases at a point in time and decreases at another point in time as represented by the zigzag nature of the line graph. This result shows an inconsistency in the average performance of male and female accounting students for the schools over the four year period. In order to determine the trend in male and female students' academic performance, the mean was used to determine their average scores in Financial Accounting. Figure 2 shows the trend of individual average performance of the male and female students in accounting over the years under study.



**Figure 2: Trend in academic performance of male and female students in financial accounting**

Source: Field data, 2017.

Comparing the trend of academic performance for male and female students for the years under study, it is evident that the average academic performance fell in 2014 from the academic performance in 2013 for the male and female students. This average academic performance rose sharply in 2015 and then further declined in 2016. The trend of academic performance of the male students shows inconsistencies over the four year period as it decreases and increases. Also, the trend of academic performance of the female students shows inconsistencies over the years, but lies above that of the male students' average academic performance. This seems to suggest that the female students have a higher average academic performance as compared to their male counterparts.

**Research Hypothesis: There is no statistically significant difference in the academic performance of male and female students in Financial**

**Accounting in the four years under study.** The essence of this hypothesis was to find out whether statistically significant differences exist in the academic performance of male and female students in Financial Accounting. The independent sample t-test was used to test the hypothesis at a 0.05 level of significance. Table 4 shows the results.

**Table 4: Differences in Gender Performances in Financial Accounting**

Variable	Gender	N	Mean	SD	t	df	Sig.
	Male	214	53.74	14.73	1.310	320	.191
	Female	108	51.53	13.57			
Score 2014	Male	85	46.51	15.76	-.912	128	.363
	Female	45	49.02	13.29			
Score 2015	Male	85	53.51	19.65	-.299	143	.766
	Female	60	54.52	20.66			
Score 2016	Male	105	49.95	20.01	-.583	163	.561
	Female	60	51.83	19.78			

Source: Field data, 2017.

To use the independent sample t-test, the condition is that, the independent variables (male and female students) must be homogenous. Levene test for equality of variance was run to check the equality of the variances between the independent variables (male and female students). For equal variances to be assumed, the Sig value or the *p-value* must be greater than 0.05. The Levene test results for 2013 ( $F = 0.960, p = 0.38$ ), 2014 ( $F = 0.470, p = 0.494$ ), 2015 ( $F = 0.387, p = 0.535$ ) and 2016 ( $F = 0.004, p = 0.947$ ) showed that equal variances were assumed between the independent variables over the four-year period.

There exists no significant difference when the Sig value is greater than the 0.05 level of significance. In 2013, the results show that there is no statistically significant difference in the academic performance of male students ( $M = 53.74, SD = 14.73$ ) and of the female students in Financial Accounting ( $M = 51.53, SD = 13.57$ );  $t(1.310) = 0.191, p > 0.05$  (two-tailed). In 2014, the academic performance of male students ( $M = 46.51, SD = 15.73$ ) and of the female students in Financial Accounting ( $M = 49.02, SD = 13.29$ );  $t(-0.912) = 0.363, p > 0.05$  (two-tailed), showed no statistically significant difference. In 2015, the academic performance of male students ( $M = 53.51, SD = 19.65$ ) and of the female students in Financial Accounting ( $M = 54.52, SD = 20.66$ );  $t(-0.299) = 0.766, p > 0.05$  (two-tailed), showed no statistically significant difference. Also in 2016, the academic performance of male students ( $M = 49.95, SD = 20.01$ ) and

of the female students in Financial Accounting ( $M = 51.83$ ,  $SD = 19.78$ );  $t(-0.583) = 0.561$ ,  $p > 0.05$  (twotailed), showed no statistically significant difference.

It can be concluded that, over the four-year period, students' academic performances in Financial Accounting are not gender sensitive. This is to say that both genders are performing at the same level so far as this academic performance in Financial Accounting is concerned. This could mean that the same level of interest is being exhibited by both genders. However, both genders are performing at the average level which is not encouraging.

### Discussion

The results of the study conducted showed that there was no statistically significant difference in the academic performance of male and female Financial Accounting students. This is to mean that the academic performance in Financial Accounting is not gender sensitive. The finding confirms that of studies conducted by Awuku (2014) and Okafo and Egbon (2011). The study by Awuku (2014) revealed there is no significant difference between male and female students' academic performances. Also, Okafo and Egbon's (2011) study on the academic performance of male and female accounting undergraduate students in Nigeria, showed that there is no significant difference in the academic performance of the sexes. This shows that if there are any gender differences then it could be as a result of the way the subject is handled in the classroom.

However, the study contradicts the finding of Sam (2016) which investigated gender differences in academic performance of Financial Accounting students in the Central Region of Ghana. Sam (2016) found that there is a statistically significant difference between the performance of male and female students with male students performing better than female students. This contradicting result could be because Sam (2016) made use of the terminal results of the students and that teachers' views sought could have led to subjectivity in their responses. Moreover, the terminal exams might not have been standardised as seen in the external examination conducted by West African Examination Council. This study made use of the results conducted by WAEC and could account for the differences in the findings.

It was evident from the results that there has been a zig-zag trend (unstable trend) in the academic performances of the students over the four year period. It was seen that there were inconsistencies in the academic performances of either sexes of the students. There has been neither a continuous increase in the performance of both sexes, and a continuous decrease in the academic performances of both sexes. Academic performances seem to improve in a year and falls in the subsequent year. The result established contrasts the finding of other researchers such as Bitrus et al. (2012) and Chukwugbo (2007).

Bitrus et al. (2012) in their study found that, the male students consistently scored higher grades than their female counterparts in Economics over the five-year period studied. This could imply that Economics teachers in Nigeria are putting in much effort to sustain students' academic performance. Also, students might be putting in much effort to improve their performance each year. It could further be argued that necessary support is provided for curriculum implementation. Also, Chukwugbo (2007) found from the five-year study that the female students consistently performed academically better than the male students in accounting over the five year period studied. This is quite interesting as many ascribe mathematical courses to male students and not that of the female students. This study shows an unstable academic performance for both genders.

## 5. CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS

### 5.1 Conclusions

The fact that both male and female Financial Accounting students' performances was on average was good based on the pass mark set by WAEC to which considers a student to have passed the subject. However, this performance is not too encouraging since it might not make students to be highly competitive when progressing to higher levels of education. This means that in general the performance of students in Financial Accounting is not encouraging and needs serious attention.

Again, the trend in the academic performance in Financial Accounting for male and female students seems to suggest that their average academic performance is not stable. This means that if students' interest in the course should fall, they are likely to fall below the average mark for good academic performance which might be dangerous for them. This also shows that certain instructional elements which support teaching and learning might be inadequate or limited.

Finally, the study revealed that the performance in Financial Accounting of senior high school students is not gender sensitive. It, therefore, implies that both gender have same preference for the study of Financial Accounting.

### 5.2 Recommendations

In light of the findings and conclusions drawn from this study the following recommendations are made.

1. Financial Accounting teachers should engage their students with more academic exercises. Also, better innovative ways should be adopted in teaching students to heighten their interest in the subject.
2. School heads are to ensure that qualified and competent Financial Accounting teachers are employed to teach the subject. In addition, frequent seminars should be organised for the teachers to keep them abreast with current knowledge explosion in the subject as well as innovative ways of teaching the subject.
3. University entry requirements for accounting programmes for both male and female students should be at par. This is to encourage equal inputs from both genders at the senior high level.

### 5.3 Suggestions for Further Research

The study compared male and female students' academic performance in Financial Accounting in selected senior high school in the Cape Coast Metropolis.

It is therefore recommended that future research efforts should be concentrated on:

1. Causes of the average academic performances of Financial Accounting students in the same selected Senior High Schools in the Cape Coast Metropolis.
2. The study area should also be expanded to consider many Senior High Schools in the same Metropolis.
3. The study should also be conducted to cover a six to seven year WASSCE performances of students in Financial Accounting and perhaps in other subject areas.

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