

UNIVERSITY OF CAPE COAST

GENDER DIFFERENCES IN ACADEMIC PERFORMANCE OF FINANCIAL  
ACCOUNTING STUDENTS IN SELECTED SENIOR HIGH SCHOOLS IN  
THE CENTRAL REGION OF GHANA

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THE CENTRAL REGION OF GHANA

BY

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College of Education Studies, University of Cape Coast, in partial fulfilment of  
the requirements for award of Master of Philosophy Degree in Curriculum Studies

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## DECLARATION

### Candidate's Declaration

*I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.*

Candidate's Signature.....

Date.....

Name: Leticia Sam

### Supervisors' Declaration

*We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.*

Principal Supervisor's Signature.....

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Co-supervisor's Signature.....

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## ABSTRACT

The study examined gender differences in the academic performance of Financial Accounting students in selected senior high schools in the Central Region of Ghana. Descriptive survey design was employed to carry out the study. The simple random sampling and census techniques were used to select 331 students and 137 teachers of Financial Accounting respectively. Questionnaires were the instrument used in collecting the data. The data was analysed using descriptive statistics (means, standard deviation, percentages and frequencies), inferential statistics (t-test) and thematic approach. The study found that there are gender differences in students' performance in Financial Accounting. Thus, the difference in the mean scores of male students and that of female students in Financial Accounting also implied that there are gender differences in students' performance. The study also revealed that male students studying Financial Accounting perform better than female students. The mean of means score of both the teachers and the students indicated that male students perform better than female students in Financial Accounting.

It is recommended that the Ministry of Education, policy makers, school principals and other stakeholders of education should advise Accounting teachers to motivate the female students to have positive attitude and perception about Financial Accounting. Again, the study recommended that teachers of Financial Accounting should be abreast of current pedagogical content orientation of the subject in order to teach to the level of each student in the class.

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## **DEDICATION**

To Kojo, Jonathan, Ebenezer and Daniel

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## **CHAPTER ONE**

### **INTRODUCTION**

#### **Background to the Study**

Several debates concerning performance levels in education have been identified both in literature and in the press. It is pertinent to note that significant improvements have been recorded over the years in terms of levels of performance in education across a wide spectrum of subjects and courses. Encompassed within the general attainment level is the differential performance of males versus females, and a gender issue within the educational literature is an area which has attracted a lot of attention. Studies have ranged from an examination of general trends in senior secondary school to trends in the final year at the University level and even post-degree qualifications. However, many studies integrate gender as a peripheral aspect of the work, focusing more on factors determining performance rather than raising gender as the key research question. Numerous studies have also tended to focus on a single performance measurement rather than exploring gender differences between the same group of students across a longer timeframe (Gammie, Paver, Gammie & Duncan, 2003).

One specific issue which has generated much debate in educational circles over the years is a question of whether differences in performance exist or not between males and females in a defined learning task. A definite answer to this

question seems to be a complex one. Thus, gender issues are currently the main focus of discussion in the world over and Ghana is not an exception. The complexity arises because empirical and theoretical literatures have produced diverse and contradictory results (Oluwatayo, 2011). In recent times, there have been studies on the performance of senior secondary school accounting students with emphasis on gender dimension. However, empirical results on this issue have not been consistent. Whilst some studies reveal that female students outperform their male counterparts, others reveal that male students outperform their female counterparts. Still, others show no significant differences.

Nobbert-Bennet (2002) indicates that academic achievement reports have repeatedly indicated that there is increasing evidence that females are outperforming males academically in secondary education across a range of subjects. Obanya (2005) and Croxford (2000) confirmed that the average levels of attainment for boys are lower than those of girls at all stages and across almost all areas of the curriculum. Adeosun (2002) is also of the same view. He confirmed that there is no significant difference in the achievement score between males and females in a study conducted on the effects of multimedia packages and students' achievement in social studies. Abdu-Raheem (2010) also concluded that there is no significant difference between the performance of male and female students in Social Studies. Aboagye, Mensa and Dumba (2013) also researched on the performance of English students in senior high schools in Ghana and came out with the conclusion that female students perform better in English language than their male counterpart. A research conducted by Kyere, Gyeabour and Anaba

(2012) on gender differences and performance of history students in senior high schools in Cape Coast metropolis concluded that there is no significant gender difference between female students who are studying history and their male counterpart. According to the Ministry of Education report (MoE, 2013) on gender, especially enrolment and achievement remain unequal for males and females in the senior high schools. It is pertinent to note that WASSCE pass rates were higher for males than for females in each of the four core WASSCE subjects as shown in Table 1.

**Table 1: WASSCE Examination Pass Rates by Subject and Gender, 2012.**

Subjects	Male pass rate in percentage	Female pass rate in percentage	Average pass rate in percentage
English	69	67	68
Mathematics	55	44	50
Integrated Science	61	52	57
Social Studies	88	86	87

Source: MoE (2013)

In 2012, 174, 461 students sat for the WASSCE in Ghana. Pass rate improved in 2012 as compared with 2011 in all subjects except English, where the results fell (WAEC data). This comes after a considerable increase in pass rates in English a year before. The general upward trend in pass rates could be attributed to the move to a four-year SHS which affected the 2011 and 2012 cohorts. The statistics given by WAEC with respect to pass rate in English between 2011 and



2012 clearly shows that there are differences in gender performance between male and female students. Gender studies are therefore gaining popularity across different disciplines and Accounting cannot afford to be left out as such studies would likely have implications for future teaching methods, curriculum enrichment and redesign, among others. Although gender issues are talked about in schools, it appears that little is being actually done about such issues. It has been demonstrated that there are some academic benefits to be gained from single-sex schooling (Kelly, 1996), and some co-educational schools have begun to segregate males and females for parts of their academic life (Dunant, 1996). However, the evidence is far from clear cut and the evidence from both sides of the argument is plagued by idiosyncratic sample (Marsh, 1989).

As a result of the little research done on gender differences in accounting performance and factors contributing to these differences, it has become necessary for a study to be conducted in a developing nation such as Ghana to further excavate the hidden aspects of the study in the Ghanaian context. In fact, differences in the performance patterns between males and females have been documented in many developing countries in Africa. Educators have recently begun to seriously question the differential school performance, as it appears in quite a number of different assessments measures, across a number of grades (Nobert-Bennet, 2002). Moreover, it appears that there are differences in outcomes according to gender at the secondary school level globally. These patterns have attracted the attention of a number of educational researchers who have suggested various explanations for the discrepant achievement patterns

between males and females, as well as a number of ways of intervening in order to redress the situation. These explanations include both small-scale classroom intervention and larger-scale educational reforms. In appreciating the situation as it pertains currently, Kyei, Apam, and Nokoe (2011) conducted a research on gender differences in performance in senior high school mathematics examination in mixed high schools in the Upper East region of Ghana. Results indicated that there is gender difference in the outcome of mathematics examinations in Upper East mixed senior high schools. The investigation showed that there is a gender difference with males performing better than females. Asante (2012) indicated clear-cut sex differences in attitude towards mathematics between boys and girls in high schools in Ghana. Thus, the gap found in his study is in line with gender differences in cognitive abilities reported by some authors. Zechariah (2011) concluded that the accounting education literature indicates that educational theories and teaching models will be the variation in male and female students' performance in Financial Accounting.

In Nigeria, gender differences in performance of senior high students conducted by Abiam and Odok (2006), found no significant relationship between gender and performance in number and numeration, algebraic processes and statistics. Sam, Joshua and Asim (2009) were also of the view that, there is no significant difference between male and female mathematics students. The discussion so far has prompted the researcher to undertake a thorough study on gender differences in performance of Financial Accounting students in selected senior high schools in the Central Region of Ghana.

## Statement of the Problem

In recent years, educators, researchers and policy makers have taken notice of a trend whereby females are attaining higher academic achievement than males in many countries (Nobert-Bennet, 2002). This trend does not further diminish with age, with schools reporting that male students have lower attendance and completion rates. Many theories outlining possible reasons for the differences in performance have been put forth. However, despite the many explanations and intervention strategies, gender differences in academic performance still seem to persist.

Sufficient researches have been conducted on gender differences in academic performance in subject areas like mathematics, science, agricultural science among others but not in accounting and other business related subjects in the senior high schools. Sam, Joshua and Asim (2009) opined that there is no significant difference between male and female students' performance in Mathematics in senior high schools. Accordingly, Asante (2012) indicated a clear-cut difference in attitudes towards mathematics between boys and girls in senior high schools in Ghana. It is pertinent to note that varied opinions have been given concerning gender and performance of senior high schools in various subjects. Kyei et al (2011) concluded in their study that there is gender difference in the outcome of mathematics examinations in mixed senior high schools in the Upper East Region of Ghana. Specifically, their investigation showed that there is gender difference with boys performing better than girls. A study conducted in Ghana by Oppong (2010) on gender differences in performance of senior high

school students in History concluded that there is a significant difference between the performance of male and female History students on essay examination, while a significant difference also exist in multiple-choice examination.

Akoto (1990) revealed that parents have the desire to educate males rather than females as a result of insufficient financial resources. He further indicated that females are not performing well in school when compared to their male counterparts. Eshun (1999) also observed a higher achievement of males than females in mathematics at the secondary school level. Mensah and Nasir (1996) also indicated that parents prefer educating their male child as compared to their female child because of the notion that males usually perform better than females. In addition, studies conducted on gender differences in students' performance in mathematics by Otu-Danquah (2000) and Olaewe (2005) also concluded that males perform better than females especially in Mathematics and Science subjects.

Moreover, a critical consideration of the May/June WASSCE statistics on performance in Financial Accounting indicates that pass rate for male and female students in 2011 was 79.2% and 77.4% respectively. In 2012, the pass rate for male students was 69.2% and that of female students was 67.2%. In the year 2013, the statistics indicated 54.9% pass rate for male students and 51.3% for female students. The differences in performance of Financial Accounting students were not much significant in 2011 and 2012 but there was a significant difference in performance of male and female Financial Accounting students in 2013. The failure rate for male and female students in 2011 was 4.8% and 5.4% respectively.

In 2012, the failure rate for the male students was 10.5% and that of female students was 10.7%. In the year 2013, the statistics indicated 20.3% failure rate for males and 22.6% for female students (WAEC, 2011-2013).

The literature given by writers like Kyei et al (2011), Oppong (2010), Akoto (1990) and Mensah and Nasir (1996), Otu-Danquah (2000) and Armah (2004) buttressed the fact that there are significant differences in terms of gender differences in students' performance. The underlying puzzle is whether there are differences or not between male and female students' performance in the senior high schools in the Central Region of Ghana. It is upon this thrust that I intend to embark on a thorough research on the topic "Gender differences in performance of Financial Accounting students in selected senior high schools in Central Region of Ghana".

### **Purpose of the Study**

The driving force of this research was to find out gender differences in students' academic performance in Financial Accounting at the Senior High School level. Specifically, the study aimed at examining:

1. how male and female students perform in Financial Accounting.
2. whether there is a statistically significant difference between male and female students in their academic performance in Financial Accounting.
3. the factors that cause gender differences in students' academic performance in Financial Accounting.
4. what could be done to improve the academic performance of students studying Financial Accounting.

## **Research Questions**

The following research questions guided the study:

1. How do male and female students perform in Financial Accounting?
2. What factors cause gender differences in students' academic performance in Financial Accounting?
3. What could be done to improve the academic performance of students studying Financial Accounting?

## **Research Hypothesis**

H<sub>0</sub>: There is statistically significant difference between male and female students in their academic performance in Financial Accounting?

H<sub>1</sub>: There is no statistically significant difference between male and female students in their academic performance in Financial Accounting?

## **Significance of the Study**

The research would be helpful in the following ways: the findings would enable teachers to adopt a teaching and evaluation strategy that is gender biased-free. This will enable both sexes to see themselves as equally capable of competing and collaborating in classroom activities. Also, heads of schools would be aware of how to reduce gender difference in academic success in Financial Accounting if not completely wiped out. In addition, the findings of the study would be of much benefit to policy makers and curriculum developers in accounting since it intends to contribute to gender differences in accounting.

Thereby adding to literature of understanding gender differences in accounting education as well as providing accounting educators with insights into how the curriculum may influence students' attitudes towards the profession, together with implications as to how the profession should be promoted to students. Lastly, the findings would contribute to knowledge in that other researchers may find it useful to further research on gender differences in performance of students in Financial Accounting.

### **Delimitation of the Study**

In terms of content, this study focused on differences in male and female Financial Accounting students' performance. In terms of setting, although there are mixed private senior high schools in the Central Region which offers Financial Accounting, the study was confined to mixed public senior high schools in the Central Region. Also, only Financial Accounting students in these schools were considered and not students in other subjects areas. The first term reports of SHS three (3) students for the 2013/2014 academic year were used for the study.

### **Limitations of the Study**

Since the study was conducted in the Central Region, its key findings cannot be generalized to reflect the academic performance of Financial Accounting students in Ghana. Though a reasonable sample size was used, involving more schools and thus more students in the study would have given a better description of the nature of the gender difference in Financial Accounting in the Central Region. Sampling more of the students in the various classes to

participate in the study might have motivated them positively and hence affected how they answered the questionnaires.

### **Operational Definition of Terms**

For the purpose of the study, the following definitions were implied for the terms below:

**Performance:** The level of accomplishment on an assigned task or tasks by a person or an organization.

**Academic Performance:** The level of accomplishment by a student on a given academic task. Thus, academic performance is what a student is able to achieve when he is tested on what he has been taught, usually in a formal way.

**High Performers:** They are the group of students who obtain score of 75% and above in an academic work.

**Average Performers:** They are the group of students who obtain scores of 50% to 74% in an academic work.

**Low Performers:** They are the group of students who obtain scores below 50% in an academic work.

**Gender:** Sexual category of students in the mixed public schools.

### **Organisation of the Rest of the Study**

Following the introduction, the study is organized as follows: Chapter two presents review of literature relevant to the study. It looks at the conceptual and theoretical frameworks, and the empirical studies related to the study. Chapter three considers the methods used in collecting and analyzing the data. In this chapter, research design, population, sample and sampling technique are



described together with instruments used as well as data collection procedure and data analysis. Chapter four focuses on the results and discussion of the findings. Lastly, chapter five presents a summary of the findings of the research and conclusions. It also provides recommendations for improvements and suggests areas for further research.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **Overview**

This chapter reviews relevant literature on theoretical framework, conceptual framework and empirical studies related to this study. The review of related literature permits comparison of the findings of this study and similar researches to provide a basis for confirming or disproving earlier judgments made. Major theories that were reviewed in this chapter include the expectancy-value theory and the theory of performance.

#### **Theoretical Framework**

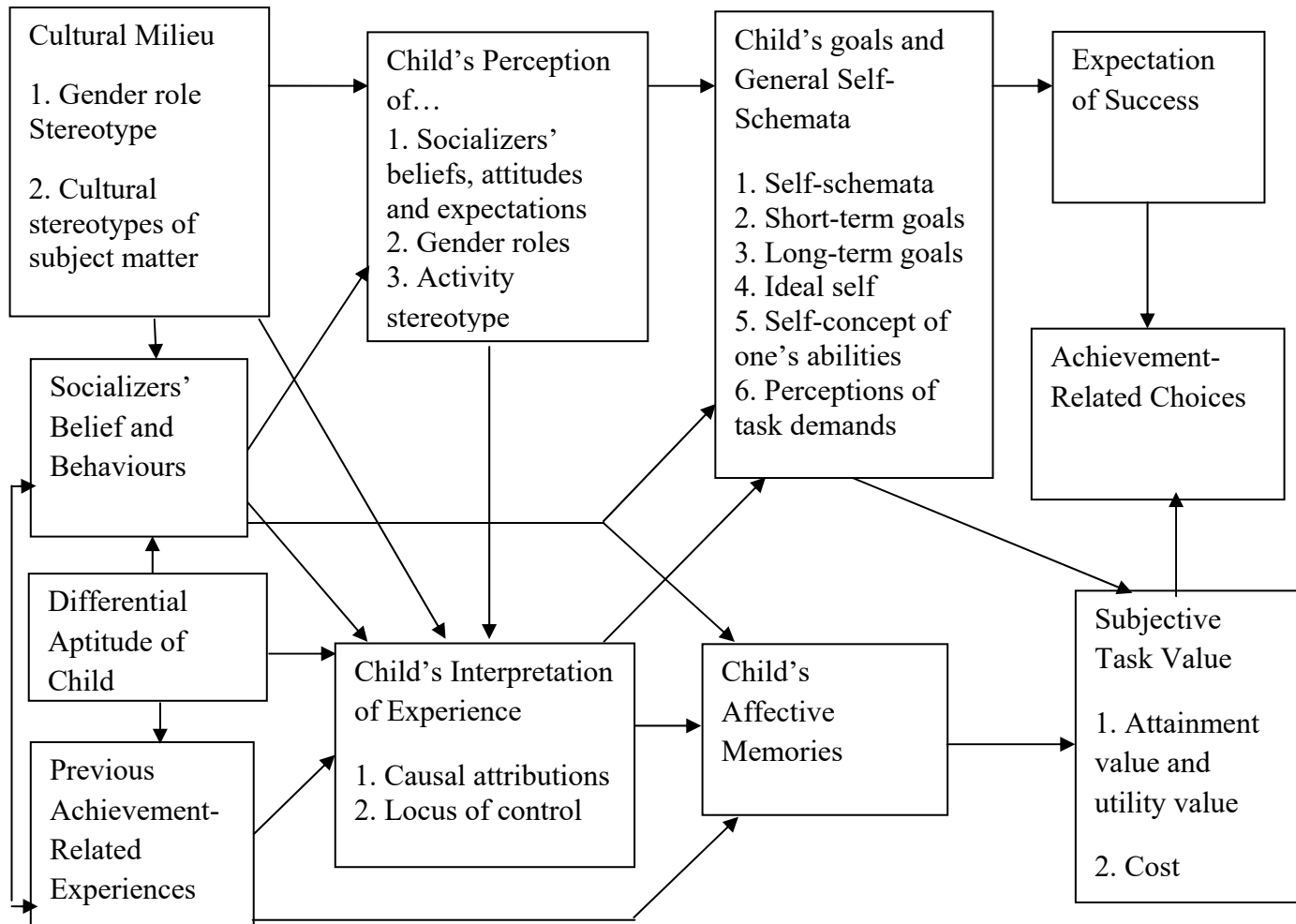
The theoretical framework of the study was rooted in the expectancy-value theory of achievement and the theory of performance.

#### **The Expectancy-Value Theory of Achievement**

The expectancy-value theory of achievement proposed by Eccles and her colleagues (Eccles, Adler, Futterman, Goff, Kaczala, Meece & Midgley, 1983; Wigfield & Eccles, 2000) was an expansion of Atkinson's expectancy-value model (Atkinson, 1957). In this study, various achievement-related influences (variables) that have an impact on individuals' expectancies and values are included in the model which makes it more social cognitive in nature (Wigfield, 1994). These variables include previous achievement-related expectancies,

socialization experiences, perceived task difficulty, individuals' goals, self-schema, perceptions of significance of others' beliefs and behaviours, the cultural milieu, and historical events. This model implies that, accounting students' performance, effort, persistence, their thinking, their ability of reasoning and how they choose various tasks are determined by expectancy-related beliefs and subjective task values that they place on in order to achieve tasks, after previous performance has been controlled (Eccles et al., 1983). A review of the full recent version of this model can be found in Eccles, Wigfield, Harold and Blumenfeld (2007) as depicted in Figure 1.

From Figure 1, expectancies and values are believed to be influenced by task-specific beliefs such as perceptions of competence, perceptions of the difficulty of different tasks, and individuals' goals and self-schema. In this model choices are assumed to be influenced by both negative and positive task characteristics and all choices are assumed to have costs associated with them. Precisely, because one choice often eliminates other options. Individuals' task perceptions and interpretations of their past outcomes are assumed to be determined by socializers' behaviour and beliefs and by cultural milieu and unique historical events.



**Figure 1:** Expectancy-value Model of Achievement (Source: Eccles et al., 2007)

### **Expectancies for Success**

Eccles and colleagues explain expectancies for success as individuals' beliefs about how well they will do on upcoming tasks, either in the short or longer term future. Expectancies for success refer to how individuals view their probability for success at a specific task. These expectancy beliefs are quantified in a manner to match Bandura's (1997) personal efficacy expectations. Thus, in contrast to Bandura's claim, expectancy-value theories focus on performance expectations, the concentration in this model is on personal or efficacy expectations. In Accounting education, expectancy-related beliefs about different tasks have been reported to be very crucial in predicting students' achievement outcomes, such as effort/persistence and performance (Cox & Whaley, 2004; Xiang, Chen, & Bruene, 2005; Xiang, McBride, & Bruene, 2004, 2006).

### **Beliefs about Ability**

Beliefs about ability are defined as students' beliefs about their competence in carrying out or learning different achievement tasks. In the expectancy-value model ability beliefs are conceived as broad beliefs about competence in a given domain, in contrast to one's expectancies for success on a specific upcoming task (Eccles et al., 1983). However, the study of Eccles et al has shown that children and adolescents do not distinguish between these two different levels of beliefs. Evidently, even though these constructs can be theoretically differentiated from each other, in real-world achievement situations they are highly related and factually impossible to discern. This implies that, the

belief of accounting students and their competencies in learning during accounting lesson in the real world context cannot be separated.

### **Subjective Task Value**

Subjective task value is another essential component of the model. This is defined as individuals' incentives for doing different tasks. Eccles et al. have pinioned that subjective task values are a function of four distinct categories: attainment value (importance), intrinsic value (interest), utility value (usefulness), and cost.

### **Attainment Values**

Eccles et al. (1983) use the term attainment value to refer to the link between tasks and individuals' own identities and preferences. This implies that as students grow up and mature, they advance an image of who they are and what they would like to be. This image is made up of many parts, including (1) conceptions of one's personality and capabilities, (2) long range goals and plans, (3) schema regarding the proper roles of men and women in one's culture group, (4) instrumental and terminal values, (5) motivational sets, (6) ideal images of what one should be like; (7) stable personal interests, and (8) social scripts regarding proper behaviour in a variety of situations.

In this regard, attainment value could be visualized in terms of needs, personal interests, and personal values that an activity fulfills. According to Eccles et al., those parts of an individual's self-image that are critical to self-definition should determine the value the student places on the various activities such as school-based learning activities versus other activities. These varying

values, in turn, should influence the students' desire to participate fully in school-based learning activities. For example, if doing well in accounting class and being the best accounting student in the school is a central focus of an individual's self-image, then such a student must place higher value on investing time and energy in doing well in accounting class than in other pursuits, because being the best accounting student in school has high attainment value for this individual.

### **Intrinsic Value**

The amount of relevance accounting students place on performing better in a given task affirms one's aspects of self-schema and core personal values. This represents intrinsic reasons because the task is valued in itself, but not because it will get the student some other valued goal. Eccles and colleagues (1983) use the term intrinsic value to refer to either the enjoyment one feels when doing the task or the enjoyment one expects to experience while one is engaged in the task. This component of value is similar to the construct of intrinsic motivation as defined by Harter (1982), and by Deci and Ryan (1985), and to the constructs of interest and flow as defined by Csikszentmihalyi (1988), Renninger, Hidi and Krapp (1992), and Schiefele (1999).

According to Deci and Ryan (1985), intrinsic motivation is highest when individuals are doing tasks that they enjoy, as well as when they are doing tasks that are personally meaningful. Interest is the enjoyment one gains from doing the task, or the subjective interest one has for the task. Pintrich, Ryan, and Patrick (1998) suggested that this element is similar to the construct of personal interest and functionality of the intrinsic value is how the task relates to one's future

goals, and can be seen as capturing more extrinsic reasons for doing the task (e.g., valuing an accounting class because of future plans to be a financial analyst). From the perspectives of interest theorists, accounting students engagement will be highest when they are doing interesting tasks. According to Eccles, Wigfield and Schiefele (1998), and Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean (2006) students' interests, intrinsic motivation, and intrinsic value predict their greater academic engagement and learning.

### **Utility Value**

According to the theory, utility value is determined by how well a task relates to current and future goals, such as career goals. For example, if accounting students plan to become investment analysts, then mastering arithmetic in primary school and doing well in challenging business courses in secondary school will have high utility value because it will allow them to take track of business subjects in secondary school and then get into college training programs or the university in accounting. If not, then the value of doing the work necessary to succeed in these courses may be too low to motivate their effort. Accounting students task can have a positive value to their academic performance due to the fact that it facilitates the importance of their future goals, even if they are not interested in the task for its own sake. From this view, Deci and Ryan (1985) concur that this component captures the more "extrinsic" reasons for engaging in a task. However, it also relates directly to an individual's internalized short and long-term goals. The study of Eccles et al (1983) on gender differences in high school mathematics and science course enrollment indicated that the



importance of the perceived utility value of various course options influence how the utility value and interest in mathematics and science relates to academic achievements over time and also found that gender differences in enrollment in advanced mathematics courses in high school are mediated by gender differences in expectations for success in mathematics and physics and perceived value of competence in mathematics. The study revealed that gender differences in students' decisions to enroll in advanced mathematics are mediated primarily in the value that the students' attached to mathematics. It is adduced from the study of Eccles et al (1983) to the current study that, there would be a significant gender difference among students based on the perceived value placed on the teaching and learning of accounting.

### **Cost**

Finally, element of the theory of Eccles et al. is cost. Cost can also be conceptualized in terms of the loss of time and energy for other activities (Eccles, 1987). Cost refers to how the decision to engage in one activity limits access to other activities. Students have limited time and energy hence they cannot do everything they would like and because of this they must have opportunity cost among activities. Eccles and colleagues asserted that cost is especially important to choice and that socio-cultural processes matched to social identity formation and cultural socialization should have a big effect on the perceived cost of the various activities competing for students' time and energy. It is of essence to underscore that cost is influenced by many factors, such as anticipated anxiety, fear of failure, fear of the social consequences of success, such as rejection by

peers or anticipated racial discrimination, or anger from one's parents or other key people, and fear of loss of a sense of self-worth. Hence, schools need to provide accounting students' with adequate genuine reasons for attaching higher subjective task value to engaging in school task than in engaging in the variety of work associated with other aspects on their daily lives. In accounting education, subjective task values have been found to be a critical dimension affecting students' achievement-related behaviours, outcomes, and cognitions. Eccles and her colleagues have posited that expectancy-related beliefs and subjective task values would be positively related to each other (Eccles et al., 1983; Eccles, Wigfield, & Schiefele, 1998). In other words, individuals tend to see the activity as more important, interesting, and useful if they do well and believe they are competent on the activity.

In summary, expectancy-value models continue to be prominent. The most important contributions of the contemporary models are the elaboration of the values construct and the discussion of whether expectancies and values relate differentially to accounting students' performance and choice.

### **Theory of Performance**

Theory of Performance was propounded by Elger (n.d.) which develops and relates sex foundational concepts to form a framework that can be used to explain performance as well as performance improvements. To perform, according to Cambridge Advanced Learner's Dictionary (2007) is to do an action or piece of work in order to achieve results. That is, to perform is to take a complex series of actions that integrate skills and knowledge to produce a

valuable result. A performer therefore is an individual or a group of people engaging in a collaborative effort. Developing performance is a journey, and level of performance describes location in the journey. Students in the world are capable of wonderful achievement. Extraordinary accomplishments among students also occur in day-to-day practice in the classroom. Teachers in general motivate and inspire students to follow their dreams. Some teachers magically link themselves to their students to the level of helping each student to be academically brilliant in order to perform best in the educational activities such as external exams. Since worthy achievements are produced from high-level performances, a theory of performance (ToP) is useful in many learning contexts (Van Scotter, Motowidlo, & Cross, 2000).

**Traditional Contexts:** A theory of Performance informs learning in classrooms, student's workshops, and other venues that are traditionally associated with learning.

**Non-traditional Contexts:** A theory of Performance informs learning in contexts that are not traditionally conceptualized as learning environments. Examples of these contexts include academic advising, self-development, departments, academic committees, professional research groups, colleges.

**Organizational Learning:** A theory of Performance informs learning by organizations through the idea of examining the "component of performance" of the schools.

## **Conceptual Framework**

The conceptual framework of the thesis comprises, the concept of students' academic performance; Students performance as a dynamic concept; Components of students' academic performance; Measures of improving students' academic performance; The importance of students' academic performance in schools; Gender and academic performance; Gender differences in academic performance and factors that cause gender difference in academic performance of students. These concepts were explained in the paragraphs that follow.

### **The Concept of Students' Academic Performance**

Individual student academic performance is a core concept within schools. During the past years, educational researchers have made progress in illuminating and increasing the performance concept (Campbell, 1990). Furthermore, recommendations have been made in clarifying key predictors and processes linked with students' performance. With the foregoing context that we are witnessing within schools today, the performance concepts and performance requirements are undergoing alteration as well (Ilgen & Pulakos, 1999).

Ankomah (2011) defines academic performance as the measured output of students at the end of a series of assessments. Tetteh (2011) also sees academic performance as the reach of gain by effort or accomplishment of one's goal. The Wisconsin Education Association Council (1996) also set their definition of performance as the one requiring students to demonstrate skills and competencies by performing or producing something. Danso (2011) in defining academic

performance said academic performance refers to the series of action of a person on a learning task. When performance is used in education, it is often presented as synonymous with achievement or attainment. In addition, academic achievement is seen as a process in which students' show their ability to pursue tasks. In other words, what a student is able to achieve when he or she is tested on what has been taught usually in formal education. Thus, at the end of a period of carefully-planned mode of instruction, students may have to be assessed after having undergone such series of instruction. This will enable educators to measure and categorize the output of the students and eventually establish their performance.

Nevertheless, performance is highly important for an institution as a whole and for the individuals in the institution themselves. Researchers strongly agree that when visualising academic performance one has to segregate between an action (i.e., behavioural) aspect and an outcome aspect of performance (Campbell, McCloy, Oppler, & Sager, 1993; Roe, 1999). The behavioural aspect of performance refers to what a student does in the task situation. According to Kanfer (1990), it encompasses student behaviours such as attending to classes, performing class assignment, presenting home work on time and any other school activities as well as teachers teaching basic reading skills to school children. It is of essence to note that not every action of students is subsumed under the performance concept, but only action which is very important for the school goals and objectives. "Academic performance is what the schools admit students to do, and do well" (Campbell et al., 1993). Thus, performance is not defined by the action itself but by judgmental and evaluative processes (Ilgen & Schneider,

1991). In the view of Motowidlo, Borman and Schmit (1997), actions which can be measured are considered to represent performance.

The outcome aspect of performance refers to the result of the student's behaviour. The described behaviours may result in outcomes such as numbers of class test and assignment done and pupils' mathematical ability. In many situations, the behavioural and outcome aspects are related empirically, but they do not overlap completely. The outcome aspects of performance largely depend on factors other than the student's behaviour (Ilgen & Schneider, 1991). For example, imagine a teacher who delivers a perfect Financial Accounting lesson (behavioural aspect of performance), but one or two of his pupils nevertheless do not improve their skills to master accounting principles and concepts because of their intellectual deficits (outcome aspect of performance).

In practice, it is very hard to describe the action aspect of performance without any reference to the outcome aspect. Because not any action but only actions vital for schools goals constitute performance, one needs criteria for evaluating the degree to which a student's performance meets the schools goals. Again, it is very difficult to imagine how to conceptualize such criteria without simultaneously considering the outcome aspect of performance at the same time. Thus, the emphasis on performance being an action does not really solve all the problems. Moreover, despite the general agreement that the behavioural and the outcome aspect of performance have to be differentiated, I do not completely agree about which of these two aspects should be labelled 'performance'.

Educational institutions need highly performing individuals in order to meet their goals and to achieve competitive advantage over other institutions as performance is important for the individual as well as the schools they attend. Accomplishing tasks and performing at a high level can be a source of satisfaction, with feelings of mastery and pride. Low performance and not achieving the goals of an individual might be experienced as dissatisfying or even as a personal failure. Thus, performance is a major, although not the only, prerequisite for future career development and success in a competitive environment. Although there might be exceptions, high performers get promoted more easily in a school and generally have better career opportunities than low performers (VanScotter, Motowidlo & Cross, 2000).

### **Students' Performance as a Dynamic Concept**

It is very important to understand that the performance of accounting students in the world is not stable over time. The diversities in student's performance over time reflect two key issues:

1. learning processes and other long-term changes and
2. temporary changes in performance

Students' performance alters as a result of learning. Prior research has indicated that performance initially increases with increasing time spent in a specific task and later reaches a peak (Avolio, Waldman, & McDaniel, 1990; Quiñones, Ford, & Teachout, 1995). Moreover, the processes that underline students' performance change over time (McDaniel, Schmidt, & Hunter, 1988). For instance, during early phases of skill acquisition, student performance largely

depends on ‘controlled processing’, the availability of declarative knowledge and the optimal allocation of limited intentional resources, whereas later in the skill acquisition process, performance largely relies on automatic processing, procedural knowledge, and psychomotor abilities (Ackerman, 1988; Kanfer & Ackerman, 1989).

To pinpoint the processes underlying changes of students’ task performance, Murphy (1989) separated a transition from a maintenance stage. According to Murphy (1989), the transition stage occurs when students are new in studying a particular subject and when the activities involved in learning of that subject are novel. The maintenance stage occurs when the knowledge and skills needed to perform the task are learned and when task achievement becomes automatic. For doing better during the transition phase, cognitive ability is extremely relevant. During the maintenance stage, cognitive ability becomes less important and dispositional factors (motivation, interests, and values) increase in relevance.

There is increasing empirical evidence that students differ with respect to patterns of intra-individual change (Hofmann, Jacobs, & Gerras, 1992; Ployhard & Hakel, 1998; Zickar & Slaughter, 1999). These findings show that there is no uniform pattern of performance development over time. Additionally, there is short-term variability in student performance which is due to changes in their psycho-physiological state, including processing capacity across time (Kahneman, 1973). These changes may be caused by long school hours, exposure to stress and may result in fatigue or in a decrease in their school work. However, these states do not necessarily result in a performance decrease. Individual students are, for



example, able to compensate for fatigue, be it by switching to different strategies or by increasing effort (Hockey, 1997; Van der Linden, Sonnentag, Frese, & van Dyck, 2001; Sperandio, 1971).

### **Component of Students' Academic Performance**

The performance of individual students in the various schools largely depends on the components of the system and on the interactions between these components. Each component is described using rules and exemplars. Campbell (1990) describes the component of students' performance (level of identity, skills and knowledge; context of performance, personal factors and fixed factors as described in Table 2 as a function of three determinants (a) declarative knowledge, (b) procedural knowledge and skills, and (c) motivation. A declarative knowledge includes knowledge about facts, principles, goals, and the extent to which the student know his/her self. It is assumed to be a function of a person's abilities, personality, interests, education, training, experience, and aptitude-treatment interactions.

On the other hand, procedural knowledge and skills include cognitive and psychomotor skills, physical skill, self-management skill, and interpersonal skill. The predictors of procedural knowledge and skills are again abilities, personality, interests, and education, training, experience, and aptitude-treatment interactions and additionally practice. Lastly, motivation comprises choice to perform, level of effort, and persistence of effort. Campbell does not make specific assumption about the predictors of motivation. He therefore assumes that there are

interactions between the three types of performance determinants, but does not specify them in detail (Campbell, Gasser & Oswald, 1996).

### **Measures of Improving Students' Academic Performance**

Some factors that enhance students' performance are unchangeable, other factors can be determined by the student or by others. According to Elger (n.d), the factors can be classified into three components.

**Performer's Mindset:** Students' mindset may include actions that engage their positive emotions. For instance, setting challenging accounting goals, allowing failure as a natural part of attaining high accounting performance, and providing measures in which the students could feel the right amount of security and safety.

According to Tomlinson, Kaplan, Renzulli, Purcell, Leppien and Burns (2002), the accelerator model module provides insights into maintaining a performer's mind set. This means that if accounting students mind are set and prepared by the teacher during the instructional process, they would turn to pay attention during the teaching and learning process and this would facilitate better understanding of any concept taught and in the long run they would perform very well. This also calls for teachers to come out with teaching and learning activities that retain the emotions and focus of the student during interaction periods.

**Immersion:** The second component to improve accounting students' academic performance in the schools is immersion. According to Caine, Caine, McClintic and Klimek (2005), immersion in a physical, social, and intellectual environment can improve performance and refreshing students' personal as well as their professional development. Students social interactions, disciplinary knowledge,

active learning, emotions (both positive and negative), and spiritual alignment are examples of immersion. This requires teachers to provide an environment that is conducive for student's physical, social, and intellectual development and enhancement in the schools and at home. Teachers should be on the edge of avoiding any hostile environment among students that lead to low performance. The aspect of improving students' academic performance depends largely on creating quality learning environments which outlines strategies for fostering immersion.

**Reflective Practice:** Pellegrino, Chudowsky and Glaser (2001) stated that reflective practice involves behaviour that aid students pay attention to and learn from their experiences. For examples, noting the present level of students' performance, observing students achievement, analyzing students strengths and areas for their improvements, analyzing and developing students identity in the schools, and improving levels of knowledge among students. This implies that teachers must engage accounting students in many tests and activities in order to improve their performance in the schools. This section demand assessment by the teachers to offer a variety of strategies for cultivating reflective practice among students. In effect, Elger (n.d) asserted that these conditions for optimal performance and improvements in performance can be synthesized in three axioms:

Axiom 1: engage the performer in an optimal emotional state.

Axiom 2: immerse the performer in an enriching environment.

Axiom 3: engage the performer in reflective practice

**Table 2: Components that Holistically Interact to Establish Levels of Performance**

<b>Component</b>	<b>Description</b>	<b>Exemplars</b>	<b>Classification Rules</b>
<b>Level of Identity</b>	As individuals mature in a discipline, they take on the shared identity of the professional community while elevating their own uniqueness. As an organization matures, it develops mission, its way of doing business, and its uniqueness.	<p>A student uses disciplinary slang to describe engineering design activities.</p> <p>A teacher examines his performance through the lens of student learning.</p> <p>A college dean holds herself accountable for her leadership.</p> <p>A research team evolves its identity as a performance organization.</p>	<p>Associated with maturation in a discipline or culture</p> <p>associated with maturation in life</p> <p>internalized by person or organization—the individual or organization takes on the shared identity</p>
<b>Levels of Skills</b>	Skills describe specific actions that are used by individuals, groups, or organizations in multiple types of performances.	<p>making assumptions</p> <p>persisting</p> <p>being humble</p> <p>setting goals</p> <p>observing</p>	<p>Describes an action</p> <p>action is relevant in a broad range of performance contexts</p>
<b>Level of Knowledge</b>	Knowledge involves facts, information, concepts, theories, or principles acquired by a person or group through experience or education.	<p>Facts/information—names of states, conversion factor between feet and inches</p> <p>Concepts—democracy, chair, force,</p> <p>Principles/theories—relationships between the tilt of the earth and the seasons; law of conservation of energy</p>	<p>Derives from human experiences.</p> <p>can be communicated or recognized</p>

**Table 2 cont'd**

<b>Component</b>	<b>Description</b>	<b>Exemplars</b>	<b>Classification Rules</b>
<b>Context of Performance</b>	This component includes variables associated with the situation that the individual or organization performs in.	The performance of an academic department is coupled with the organizational effectiveness of the host college.  Learning of a student is coupled with the organization of a class.	Relates to circumstances associated with the performance  Applies to multiple performance within the context—not a personal factor.
<b>Personal Factors</b>	This component includes variables associated with the personal situation of an individual.	Performance of a teacher is impacted when he or she is ill.  A student's performance is impacted by the quality of his or her home environment.	Involves life situation of an individual.
<b>Fixed Factors</b>	This component includes variables unique to an individual that cannot be altered.	Performance in basketball is impacted by height  Genetic factors influence performance	Involves an individual immutable; cannot be altered

Source: Elger (n.d.)

## **The Importance of Students' Academic Performance in Schools**

Schools demand highly performing students in order to meet their goals and objectives, to produce the kind of students the society and the business organizations' need, and finally to achieve competitive advantage. Performance is also vital for the individual Accounting students. Achieving tasks and performing at the peak can be a vehicle of satisfaction, with feelings of mastery and pride. Low academic performance and not achieving the goals might be experienced by students as dissatisfying or even as a personal failure.

Moreover, performance, if it is conceptualised by others (teachers and students) within the schools is often rewarded by financial and other benefits. Performance is a major but not the only prerequisite for future personal career development and success in the labour market. Although there might be exceptions where good students get promoted more easily within schools and generally have better career opportunities than worse students (VanScotter et al., 2000), the high value of student's performance is also reviewed in class assignment and activities. To have a better picture about the importance of student performance in schools, an empirical research needs to be carried out in the key areas of the schools (action research) to improve the performance of the students as well as the school as a whole.

## **Gender and Academic Performance**

Performance is the end-product of all educational activities. In fact, it appears as if the whole educational system pivot round the academic achievement of students despite the fact that other outcomes are also expected from the system. According to

Ramaswamy (1990), the value of gender academic performance and achievement has raised vital questions for educational researchers such as what factors promote performance in students and how far do the different factors contribute towards differences in academic achievement? Gender academic performance of students refers to the knowledge attained and skills developed by male and female students in school subjects. Gender academic performance is defined by Crow and Crow (1969) as the degree to which a learner is profiting from instructions in a given area of learning that is, performance is resolved by the extent to which skill and knowledge has been imparted to him or her. Good (1959) asserted that gender academic performance is the knowledge attained or skills developed by the student in the school subjects usually designed by test scores or marks awarded by the teacher.

Sinha (1970) stated that those students whose academic performance is superior in the form of high percentage of marks are taken as successful candidates. On the other hand those students who fail in the previous examination and obtain low divisions in their examination are considered as individuals who have failed on their achievements. It is believed that accounting students' academic performance is influenced by personality, motivation, opportunities, education and training. Academic performance is of paramount importance to the current study because it has been revealed that a good number of variables such as: personality characteristics of the learners, the organizational climate of the school, curriculum planning, teaching learning setup, variables arising out of home, determined students' performance in different degrees (Sharmistha, 2008).

Although, majority of studies show that male students seem to be wrestling with underperformance in school, some others find no difference between females and males in terms of academic performance (Xiang, Chen, & Bruene, 2005; Xiang, McBride, & Bruene, 2004, 2006). Among the studies which do not find significant differences between males and females in academic performance, is the study which considers the education in Nigeria. In this study, no considerable difference in academic performance between genders was found; in fact males have traditionally had higher marks than females (Khwaileh & Zaza, 2011). Likewise the study of Sue and Abe (as cited in Khwaileh & Zaza, 2011) carried out in the University of California, which among other predictors included gender, found out that there was no major gender difference among students for academic performance.

Doran, Bouillon, and Smith (1991) found a positive and significant relationship between course performance and the following variables students total mark, standardized academic test scores (ACT's), declaration as an accounting major, male, and high school bookkeeping course. Baldwin and Howe (1982) and Bergin (1983) revealed that students with previous accounting background perform better on the first accounting examination but their performance become progressively worse as the difficulty of material increases until there is no significant difference in the final grade. Schroeder (1986) expanded the study of previous accounting background and found that students with over one year of high school bookkeeping accomplished better than all other students on all examinations throughout the course. He also indicated performance to be positively associated with the ACT comprehensive score, high school rank, and the intention to major in accounting.



Similarly, Geiger and Cooper (1995) examined the ability of measures developed in expectancy and needs theory to estimate the overall total mark of students enrolled in accounting. They noted that certain expectancy theory measures and the need for autonomy were able to explain about 12 percent of the variation in overall total mark. In the study of Mitchell (1988), it was observed that performance is to be correlated with high school accounting, grades in high school accounting, and high school mathematics grades. Those students with better mathematics grades and no high school accounting were able to succeed in performance after the first examination. A study carried out by Keef (1988) in a New Zealand showed that the previous study of accounting had no influences on performance, but that the previous study of mathematics and economics each had selective impact on performance. In an Australian study, Rohde and Kavanagh (1996) obtained a positive correlation between performance and high school accounting as well as standardized academic achievement scores. In the study of Alfian and Othman (2005) students who were studying Economics and Accounting agreed that gender was important to their success at school and females had better results than their male counterparts (Khwaileh & Zaza, 2011).

In effect, students' academic performance is considered as a key catalyst to judge one's total potentialities and capacities. Hence accounting students' academic performance has engaged a very important attention in education as well as in the learning process. The zeal and desire for a high level of academic performance placed a lot of pressure on students, teachers, and schools and in general the

education system itself hence a lot of time and effort of the schools must be used for helping students to achieve better in their academic endeavours.

### **Gender Differences in Academic Performance**

Over the past decade, many researchers (Xiang, McBride, Guan & Solomon, 2003; Eccles, Wigfield, Harold, & Blumenfeld, 1993) have conducted a study on gender differences in expectancy-related beliefs. Generally, males students were identified to hold higher ability beliefs and expectancies for success in most traditional accounting education than females students (Jacobs, Lanza, Osgood, Eccles, & Wigfield, 2002; Xiang et al. 2006). Furthermore, empirical evidence proved that gender differences among students are as a result of perceived gender appropriateness of the activities performed. (Lee, Fredenburg, Belcher, & Cleveland, 1999; Solomon, Lee, Belcher, Harrison, & Wells, 2003). That is, when students engaged in works deemed as gender appropriate, their expectancy-related beliefs tend to grow. Xiang et al. (2004) examined but found no gender differences in expectancy-related beliefs among fourth graders (primary four) in a running program. Gender differences are also observed on subjective task values. Many researchers (Eccles et al., 1993; Fredricks & Eccles, 2002; Jacobs et al., 2002) who have examined gender differences have shown that, compared with females, males like arithmetic more hence they place higher importance on attending accounting class (Eccles & Harold, 1991; Lee et al., 1999; Wigfield & Eccles, 1992).

On the other hand, Xiang et al. (2003) and Xiang, McBride and Bruene (2004, 2006) came out with a finding that male students and female students did not differ significantly in their subjective task values toward accounting as a subject area

and participating as a specific activity. In this view, it is not amazing that gender differences in students' motivational beliefs were found most often in gender-role related activities such as doing class assignment and physical activities.

### **Factors that Cause Gender Differences in Academic Performance of Students**

Factors contributing to the gender academic performances differences are many and complex and have been classified in various groups such as biological, innate, out of school and inside school factors. Traditionally, males' academic performance was considered superior to that of females especially in male-dominated subjects like mathematics and sciences because of higher levels of innate spatial ability (Benbow & Stanley, 1980). At the same time, females' performance was placed above their male counterparts in language because of their greater verbal and reasoning abilities (Wilberg & Lynn, 1999).

Nevertheless, the current thinking is that gender difference in academic performance is not solely attributed to innate differences in males and females. But there are other numerous factors influencing educational ability, including, but not limited to economic, cultural, social, and differences in educational systems and techniques (Gallagher, 2001). Due to the abundant and multifaceted nature of the factors which influences gender differences in academic performance, these factors are categorised into the following:

#### **Social-Cultural Factors**

It is argued under gender theory that males and females come into educational systems with different sets of behaviours, attitudes and values which are a result of childhood socialisation. When a child is born into a certain society, he or

she is raised in a culture that has already divided social responsibilities into masculine and feminine roles. This segmentation of responsibilities serves to generate male and female cultural identities which tend to influence behaviour, values and attitude of that child which in turn affect his or her future academic achievement. Gender stereotypes in most societies carry the belief that the appropriate behaviour for boys is to be more aggressive and for girls is to be more passive. Females are to remain home and take care of children and carry out household duties while men go out to seek employment to feed the family. These social cultural stereotypes tend to shape the intellectual achievement. For example, Steele (1997) argued that low expectations of teachers, family and societal gender roles in which mathematics was seen as unfeminine could reduce a woman's sense of good prospects in the subject. A recent study conducted by Hoffman, Gneezy, and List (2011) in two Indian tribes which are substantially alike except how they treat women, revealed once again the effect of culture on academic attainment. The study tested the ability of students in solving a spatial puzzle in less than 30 seconds.

Hoffman and associates found that among the patrilineal tribe of Karbi, men were 36% faster than women in solving the four-piece spatial puzzle. However, among the matrilineal tribe of Khasi, men were not faster than women. On the other hand, Wilkinson (1994) had argued that remarkable improvement in females' educational performance was attributed to what is termed "gender quake" which brought fundamental changes in attitudes towards female role in society. Harding (1986) asserted that feminism itself was responsible for bringing about radical changes in the ways girls perceived themselves, where they could no longer perceive

their identify in mainly domestic terms but rather as much as workers as homemakers. Warrington, Younger and Williams (2000) revealed that because of “macho” male culture boys were more likely than girls to be ridiculed by their peers for working hard at school, and frequently resorted to “laddish” behaviour such as challenging authority, drawing attention to themselves and pretending not to care about school work in order to gain acceptance from their peer group. Gallagher (2001) holds the view that boys and girls display different academic performance not because they differ in their physical, emotional and intellectual development but rather due to some social and cultural factors. Gallagher cites these factors to include students’ familiarity with subjects, changes of career aspiration, gendered perceptions of specific subjects, presentational styles of boys and girls, and teachers’ expectations.

### **Economic Factors**

Prior studies establish the economic situation of the student’s family as a relevant factor in achieving academic success. Ishitani (2006) demonstrates that the probability of students dropping out is higher in those students from more humble backgrounds. To lessen the effect of the family’s economic situation some countries, including Spain, provide study grants. According to Anamuah-Mensah (1995) it is believed that the low career aspiration for females as well as the stereotypical views held by employers and the rest of the society exacerbates the exclusion of females in science related occupations. There is a general traditional view that females are fragile therefore they should not be made to perform strenuous activities. This notion affects their levels of performance in school.

In this respect, Park and Kerr (1990) state that allocating grants to students with a poorer performance encourages their academic success, possibly because continuing their university education depends on their grant being renewed, and thus they must pass the subjects in which they are enrolled. This result contrasts with the grant policy introduced in some countries, among them Spain, whereby grants are allocated to students from more humble backgrounds who have successfully passed a large number of the credits taken in the previous university year, which is a guarantee of the future academic success of the student, as outlined by Jones, Robertson-Millar and Gammie (2010).

### **Biological Factors**

In previous research into gender academic achievement gap, biological differences between males and females and childhood socialisation were identified as the major contributing factors. Some studies suggested that gender differences in behaviour, skills and cognitive abilities were determined by biological factors such as brain size, hormones and genetics. Colom and Lynn (2004) reported that males have larger average brain sizes than females and therefore, would be expected to have higher average IQs. Kimura and Hampson (1994) asserted that fluctuations in testosterone in males and oestrogen in females were correlated with performance. On the contrary, Mackintosh (1998) revealed that there is no sex difference in general intelligence as measured by Progressive Matrices.

### **Environmental Factors**

Many researchers (Carbonaro, 2005; Eskew & Faley, 1988) have linked academic achievement to personal aptitude and effort put in school work. Wilberg

and Lynn (1999) concluded that females outperformed males in history because they tend to work more conscientiously and have a stronger work ethic than males and they tend to have better language abilities including essay writing skills, vocabulary and word fluency. Other researchers (Leonard & Jiang, 1999; Wainer & Steinberg, 1992) attributed superior performance of females to better study skills, working harder and a more frequent class attendance than male students.

### **Inside School Factors**

A study by Gibb, Fergusson and Horwood (2008) have revealed that the pervasive theme on discourses of the origins of gender academic performance gap is that gender differences in academic performance are largely a perception of gender differences in classroom actions. Inside school factors as a major catalyst to gender academic performance differences associate male educational underperformance to schools learning strategies and assessment procedures that are best suited to females than to male students.

According to Delamont (1999), the most commonly ways in which schooling is considered to be feminized include: educational institutions and classroom regimes that favour females; a lack of male teacher to act as academic role models for boys, a lack of toughness in discipline; a rejection of competition; and a bias towards feminism curriculum and teaching and learning materials.

A study of Chung and Monroes (1998) on the effect of different information processing styles of female and male students on their learning outcome indicated that male students were hypothesis-confirming and female students were not. It was concluded from their work that this may disadvantage male students who tend to

consider only confirming information and disregard disconfirming information if not considered by accounting educators in delivering course material and setting assessment items.

### **Academic Factors**

Several authors, Dolado and Morales (2009), Jones et al (2010), Eskew and Faley (1988), Pozo and Stull (2006) and Arquero, Byrne, Flood and Gonzalez (2009) have highlighted, through research in different areas of knowledge, that students' prior knowledge is one of the most important factors influencing learning outcomes. This factor is defined in Rankin, Silvester, Vallely and Wyatt (2003) as the entirety of a person's knowledge available before a certain learning task. Therefore, we can structure prior knowledge into conceptual knowledge and metacognitive knowledge. According to Winne (1995), conceptual knowledge includes facts, principles, rules, framework and basic skills which the student may have acquired during secondary education.

In this vein, previous studies have analysed the relation between prior knowledge of accounting from secondary school and performance in accounting courses. A lot of the authors Arquero et al (2009), Hartnett, Römcke, and Yap (2004), Rohde and Kavanagh (1996) and Eskew and Faley (1988) found out that students with prior knowledge of accounting are more likely to pass the subject of Financial Accounting. On the other hand, metacognitive knowledge takes into account cognitive ability and students' effort to learn within the instructional situation. As a proxy for cognitive ability, Arquero et al. (2009), Rankin et al. (2003) and Heales (2005) use a student's tertiary education entrance score. This measure is



calculated by taking into account the grades obtained by students in secondary school and the mark obtained in the university entrance examination. Using these measures, previous studies by Garcia (2000), Dolado and Morales (2009) and Kherfi (2008) reveal that students with a greater intellectual capacity, meaning, with higher university entrance grades and a higher average grade, respectively, achieve a significantly better academic performance in university

### **Empirical Review**

This section takes a look at studies that have been conducted by other researchers on males' performance versus females' performance, factors which cause gender differences in students' performance, what could be done to improve the academic performance of students studying Financial Accounting and gender differences in performance.

#### **How do Male and Female Students Perform?**

A number of studies have indicated how male and female students perform. Some revealed that males perform better than their female counterparts (Abdu-Raheem, 2012; Udoukpong, Emah & Umoren, 2012), other studies are indicating that females perform better than their male counterparts (Gammie, Paver, Gammie & Duncan, 2003; Hyde & Mertz, 2009). A few studies, on the other hand, are also of the view that male and female students perform equally.

A study by Abdu-Raheem (2012) investigated into the influence of gender on secondary schools students' academic performance in South-West, Nigeria. The results of 2003/2004 to 2007/2008 West African Senior Secondary Certificate Examinations (WASSCE) were collected on English Language, Mathematics,

Biology, Chemistry, Physics, Economics, Geography, Government, Yoruba, Christian Religious Studies and French from 10 secondary schools selected from 5 States in Nigeria. The samples consisted of 2,305 students. The study revealed that male and female students performed equally in English language. Males performed better than females in Mathematics, Science and Social Studies while females also did better than males in Arts except in Yoruba. Again, it was found out from the study that the performance of female students in Christian Religious Studies and French may be taken to indicate the better language abilities and better work habits of female compared with that of their male counterparts and in a nut shell, it was concluded that males perform better than females in mathematics related subjects.

Similarly, Udoukpong, Emah and Umoren (2012), conducted a study on Business Studies Academic Performance Differences of Secondary School Juniors in AkwaIbom State of Nigeria. The purpose of the study was to explore junior secondary students' personal variables typified by gender and self-concept vis-à-vis academic performance in Business Studies. Stratified random sampling and proportional sampling techniques were employed to obtain the sample for the study. A sample of 290 (138 male and 152 female) Junior Secondary students in form three (9th grade) were surveyed. The students' variables' being examined vis-à-vis academic performance in Business Studies were gender and self-concept. Findings from the study indicated that Students' academic performance in Business Studies differed significantly on the basis of gender and that males perform better than their female counterparts.

Gammie, Paver, Gammie and Duncan (2003) carried out a study to assess gender differences in Accounting Education. Statistical differences were examined using a two independent sample technique, whereby the population was categorized by gender into male and female, with either a *t*-test or Mann–Whitney test being used dependent on the distribution of the independent variable. Only two gender differences were found: females outperformed their male counterparts in the first year accounting module and also in the auditing module, which was undertaken via distance learning during the third year of the programme. No gender differences were found in any of the final year modules, and this was also evident in the coursework and examination performance analysis. Single sex focus groups were set up to explore why gender differences were apparent in the auditing module. This implies that there is increasing evidence that females are outperforming males in secondary education across a range of subjects.

Hyde and Mertz (2009) conducted a study on gender, culture and mathematics performance using contemporary data from the U.S. and other nations to find out whether males or females perform better. The data indicate that female students in the U.S. perform better than their male counterparts in mathematics performance. Thus, this is largely as a result of an artifact of changeable socio-cultural factors, not immutable, innate biological differences between the sexes which is seen from the fact that both the magnitude of mean mathematics gender differences and the frequency of identification of gifted and profoundly gifted females significantly differ with socio-cultural factors, including measures of gender equality across nations.

## **Factors that Cause Gender Differences in Students' Academic Performance**

Factors affecting student performance have allured the focus of academic researchers from many areas. They have made an effort to resolute variables which affect student performance in positive and negative directions. The foregoing studies on factors affecting accounting students' performance have looked attentively at students' ability, student motivation and experience, total mark and performance in prerequisite courses. Other factors examined include demographics, student learning styles, and classroom environmental factors.

Solagbade, Olayinka and Adeyinka (2013) conducted a study on determinants of students' academic performance in financial accounting among senior secondary school leavers in Oyo State. The purpose of this research work was to establish academic performance determinism of senior secondary school leavers in Financial Accounting and demonstrate its linkage to career interest choice determinants and career interest choice among senior secondary school leavers in Oyo State. From the findings of this study, the determinants of career interest choice investigated have significant effects on career interest choice but not all the determinants have positive significant effects on academic performance of senior secondary school leavers in Financial Accounting. The study implied that high school could not impact on the students' academic performance rightly.

In a study conducted by Trine and Schellenger (1999) on factors that influence high school accounting students' performance, they showed no significant association for gender and age. However, they found positive significant influence of total mark, standardized achievement examination, high school rank, living with

family members on students' performance in accounting. They found negative significant effect of sharing living accommodations with others, and number of job hours worked. It was seen from the study that students have different brain size, study skills and cognitive abilities but those who are more conscientious and have stronger work ethics and personal aptitude succeed.

In a similar vein, Kirk and Spector (2006) conducted a study on factors affecting students' achievement in Cost Accounting. In respect to the study, Kirk and Spector (2006) identified different grading schemes across instructors, and revealed that student total mark, regular class attendance, use of teaching and learning materials, motivation to study, performance in managerial accounting principles and performance in the first statistics course are all significantly related to success in cost accounting. Student age, gender and the length of time were insignificant. The study showed that students perform significantly better in cost accounting if they first complete Accounting.

Uyar and Güngörmüş (2011) carried out a study on factors associated with student performance in Financial Accounting course. Eight variables likely to have impact on students' performance were examined in the study. These variables were gender and score in school entrance examination, age, school total mark, prior knowledge of Accounting, class attendance and co-curricular activities, guidance and counselling services. The findings revealed that gender and score in schools entrance examination are not significantly correlated with student performance. Age of the student has negative significant influence on student performance. School total mark, prior knowledge of accounting, class attendance, co-curricular activities, guidance

and counseling services and Mathematics grade were found to be significantly related to student performance in the Financial Accounting course.

Wally-Dima and Mbekomize (2013) carried out a study on causes of gender differences in accounting performance: Students' perspective in Botswana. The study employed the survey method to investigate the factors that cause academic differences between female and male students at the largest university in Botswana. The studies indicated that female students outperform their male counterparts in accounting examinations. Among other things, the study observed that male students grasp the skills of language just as female students and female students excel in spatial skills. Moreover, the study indicated that males possess larger average brain sizes than females and therefore are expected to have higher average IQs.

Rayburn and Rayburn (1999) carried out a study to explore factors that affect how well students learn the material covered in a management accounting class. Students with a high total mark and accounting majors performed better than their counterparts. Students who consistently completed homework and were more success driven and career motivated performed better than those who did not. It was found out that students who sought guidance and counselling services, students who managed their time well, total marks, performance in managerial accounting principles, performance in the statistics course, are all significantly related to success in cost accounting. Student age, gender, the length of time between taking principles and cost accounting are insignificant.

Goedde and Ward (1996) made a comparative study on factors affecting academic achievement of Accounting students in Principles of Accounting course on

black students. Among the factors studied, school total mark was the most important factor followed by Scholastic Aptitude Test score and performance in calculus. Gender was not significant in explaining minority student performance in principles of Accounting. However, the study revealed that the factors such as daily routine of the students, tuitions, daily practice of accounting, students taking their academic work seriously were positively correlated with academic performance but there is not much difference in the importance of the selected factors exhibited by students.

Sood (1991) carried out a study on academic performance of pre-engineering students in relation to their socio-economic status and found that there was no significant relationship between academic achievement and socio-economic status. Sood, however, established that female students had significantly higher academic achievement than males and academic achievement showed positive and significant correlation with intelligence. Similarly, Clemons (2008) indicated that there were no meaningful gender differences in academic achievement, but rather a socioeconomic status, which was measured in terms of “parental income and parental level of education”, was influential.

In the study of Madhu and Grewal (1990), home environment of the students was emphasized and planning of schedule was significantly related to their academic achievement. Student’s habits and interests also influenced their academic achievement. They emphasized the importance of home factors and parent involvement in influencing academic achievement. It was seen that though schools typically prefer to teach small classes and believe that greater interaction with

students on an individual basis enhances their teaching effectiveness, research did not necessarily support this belief and is mixed at best.

Salami (2013) carried out a study on gender and academic performance in Nigeria. The study aimed at finding out the effect of gender in academic ethics and academic performance in selected final year students studying Management Sciences at Delta State University. A total of 123 respondents were randomly selected part of which 100 were found useable. An analysis of variance (ANOVA) indicated that gender affect both academic ethics and academic performance with a significant value of .026 and .002 respectively. Attributes of academic ethic are critical to good academic achievement. It was concluded that female students have better work ethics than the male students and thus male students need to be assisted in seeking a balance between imbibing good academic ethic and other non-academic interests in order to achieve more academically.

Jabor, Machtmes, Kungu, Buntat, and Nordin (2011), carried out a study on the influence of Age and Gender on the students' performance in Mathematics. The purpose of the study was to determine if age and gender influence the academic performance of students in high school mathematics. The study made use of the student's grade point average (GPA) for mathematics during high school years to measure performance. The study compared the mathematics performance between age groups and gender. The comparison revealed that there were statistically significant differences in mathematics scores between age groups and gender; however the effect sizes were small.



## **What could be done to Improve Academic Performance of Students Studying Financial Accounting?**

There are many strategies that teachers and school leaders can implement to greatly enhance student academic performance. However, in order to be most effective in sustaining positive student engagement in learning and increase academic performance, all of these efforts should be consistent and continual throughout the academic year and throughout each student's educational career.

Bhavnagar and Gupta (1999) conducted a study on guidance and counselling and how to improve the academic performance of students in New Delhi. It was suggested that guidance programmes for secondary school students should be designed to address the physical, emotional, social and academic difficulties of students. Thus, the counselling programme should seek to help the individual find solutions to his own problems and accept them as his own. They further indicated that guidance is an integral part of education; a student is not confined only to some specific aspects of his personality. Thus, they compared the impact of structured and non-directive counseling styles on academic performance of high-risk students. The conclusion drawn indicated that students in structured counseling condition had higher academic performance than those in non-directive counseling condition at the end of semester.

A similar study by Kochhar (2000) on educational and vocational guidance in secondary schools in New Delhi, considered guidance necessary to help the student with specific problems like lack of relationship between ability and achievement, deficiency in one or several school subjects, faulty study habits, and defective methods of learning and poor motivation. The study recommended that for better

student achievement, it is necessary to aid students make progress in their education by removing their difficulties and developing good study skills. Hence, guidance programs must include this aspect of student aid. As guidance plays a vital role in removing the educational, personal, social, mental, emotional and other similar problems of the student. In effect, it was adduced that the secondary school guidance programme should be a part of the total school programme and complement learning in the classroom. It should be child centered, preventive and developmental. The guidance programme should aim at maximizing the student's potential by encouraging their social, emotional and personal growth at each stage of their development in order to facilitate their academic performance.

A study by Purkey and Schmidt (1996) on invitational counselling in Pacific Grove revealed that schools with positive school climates have teachers and others who are seen as warm and caring, have educational policies that foster educational and personal development, and recognize students' efforts and accomplishments. Positive school climate is associated with well-managed classrooms and common areas, high and clearly stated expectations concerning individual responsibility, feeling safe at school, and teachers and staff that consistently acknowledge all students and fairly address their behavior. In addition, it was found that the most powerful predictors of school connectedness are related to school climate as climate can be thought of as assets external to students that indicate or promote connectedness, whereas connectedness can be thought of as internal assets such as students' feelings, perceptions, and beliefs. In a nut shell, school counsellors, teachers and principals can improve the climate of their schools by advocating for

policies that promote rather than detract from the personal and educational development of students. They can do this by conducting in-service training of teachers and administrators to teach them basic communication skills, and methods of affirming students' importance and providing encouragement to them.

A study carried out by Brown (1999) on proven strategies for improving learning and academic achievement indicated that parent involvement in educating their wards is an important factor in student achievement. Parents who have a high level of commitment to their children, set high standards, maintain a stable home environment, support achievement and become upset when grades are low, suggest that academic achievement brings honor to the family, and monitor their students' progress continuously have children who do better in school. According to Brown (1999) school counsellors, teachers, head teachers can involve parents through parent consultation, parent education classes that teach parents how to support their children in schools as well as parenting skills, and by advocating for parents and students when students are not treated fairly by the educational establishment. They can also help to keep the parents of children who are having difficulty in school apprised of their children's progress by encouraging teachers to communicate more frequently with parents than once per grading period.

Again, a study by Akey (2006), on school context, students' attitudes and behaviours and academic achievement: an exploratory analysis revealed that one method of enhancing student engagement is to cultivate a culture of achievement in the classroom where instruction is challenging. By this, students feel comfortable asking questions, and students are expected to do their best. For instance, a teacher

might create an end-of-the-year academic goal for a classroom as a whole or a specific goal for each individual student. In order to show mastery of the goal, students must complete a research project or an oral presentation.

On that note, teachers need to select a goal that is challenging but attainable and find creative ways for students to work toward achieving the goal. Again, monitoring student progress throughout the school year also will keep students focused academically and invested in their learning. When students feel challenged, they are less likely to be bored and disengaged). Hence teachers should aim to create a conducive culture in the classroom where teaching and learning is cool and asking questions is not only okay but expected. According to Stipek (2002), many of the students who are not doing well academically are the same ones who have a poor relationship with their teachers. This implies that a conducive classroom atmosphere helps in better academic performance of students.

Research by Heller, Calderon, and Medrich (2003) also indicates that the extent to which students interests are incorporated is significantly associated to their academic performance. Thus, the inclusion of students' interests in the learning process increases student engagement in learning and students learn more and retain more information when they actively participate in the learning process and when they can relate to what is being taught. For instance, an accounting teacher might select persuasive practices topics (cashbook) with teaching and learning activities that could arouse the interest and the previous knowledge of students since for example, students had knowledge on banking and also they might be exposed to the

idea of leader books, cheque books and other material that relate to cashbook. Therefore, positive student engagement can positively impact student achievement.

One study of Gracia and Jenkins (2002) found that students who do not feel confident in their ability to succeed are not likely to attempt to do the work. Building a student's confidence is not about falsely telling students how great they are. Instead, it is about assessing student weaknesses and strengths and developing ways to address them at developmentally appropriate yet rigorous levels. Additionally, acknowledging student academic growth and improvement is another way to build student confidence. It is crucial for teachers to "create collaborative, supportive environments with high but achievable standards" because it greatly effects students' engagement in school and learning. Finally, conclusions from his study reveal that teacher support is positively correlated to student motivation. Several studies have found that students who noted that their teachers were supportive and cared about their success were more likely to be engaged in the classroom and perform well academically.

### **Gender Differences in Students' Academic Performance**

The study of gender differences in academic performance in the senior secondary school students has been explored with some results (Weerakkody & Ediriweera, 2008; Atovigba, Vershima, O'Kwu & Ijenkeli's, 2012; Awofala, 2011, Ajai & Imoko, 2015; Adeyemi, 2014) generally indicating that gender is influential in academic performance, whilst other studies (Adeleke, 2007; Kiptum, Rono, Too, Bii, Too, 2013) are also indicating that there are no gender differences in academic performance.

Weerakkody and Ediriweera (2008) conducted a comparative study on the influence of gender on academic performance between Commerce and Management students. Independent sample t-test was used to compare the academic performance of two gender categories. Results indicated that there is no difference between Commerce and Management students but differences could be seen between the academic performance of the male and female students in their study. The study also revealed that some of the factors that lead to differences in performance were attendance of lectures, knowledge of English, income of the parents, perceptions of learning, attitudes of students and lecturers towards education, teaching aids and method and environmental factors. According to Weerakkody and Ediriweera (2008), there are theoretical explanations in respect of influence of gender on students' academic performance. The study found out that irrespective of the fact that students studying Management or Commerce, female students have higher academic performance than the male students, hence there are gender differences.

Atovigba, Vershima, O'Kwu and Ijenkeli's (2012) conducted a study on Gender Trends in Nigerian Secondary School Students' Performance in Algebra. The purpose of the study was to identify gender trends in Nigerian Secondary School students' achievement in Algebra. The study was an experimental one where 100 senior high schools were randomly selected made up of 50 males and 50 females in the Makurdi, Benue State. Two students represented each school who were involved in a standardized mathematical test in solving squares method of solving quadratic equations in order to assess the performance of males as against the female. The students were thereafter examined using the Quadratic Equation Roots Test, QERT,

instrument to obtain mean scores and variances of both female and male students. The t-test at 0.05 alpha was used to test significance of difference in mean performance. The findings from the results indicated that there are significant gender differences in the performance of students of which the male students performed significantly higher than the female students. The only problem I found with this study was that, the topic selected for the study was not representative of the mathematical syllabus and that only quadratic equations was not enough to compare the performance in Mathematics. Topics like sets, logical reasoning, indices, statistics, logarithm among others were excluded which are very important in order to test the mathematical ability and performance of both gender. However, the many schools employed were encouraging to adequately have a fair view of the performance of the males and females but the schools could have been reduced in order to increase the number of males and females in each school.

Similarly, Awofala (2011) conducted a longitudinal study on whether gender is a factor in Mathematics performance among Nigeria Senior Secondary Students. Data were drawn from students' mock examination mathematics results from eight secondary schools in south-eastern part of Nigeria. The independent t-test analysis of significance revealed a significant effect of gender in Mathematics performance among the sample data. Also, there were significant differences in the Mathematics performance of single-sex male and female students and rural male and female students, all in favour of male students. Based on the findings, the study recommended among others that more co-educational secondary schools be established to engender healthy rivalry between the male and female students in

Mathematics Education since co-educational schools have the tendency to mitigate the performance gap between male and female students in Mathematics.

A study by Kiptum, Rono, Too, Bii, Too (2013) on effects of students gender on mathematics performance in primary schools in Keiyo South District, Kenya found out differences in the relationship between gender of students and Mathematics performance. Descriptive survey design was used in the study to investigate the attitudes of primary school learners towards Mathematics. Data was collected by use of questionnaires, interview schedules and class examination administered previously. The study showed that Mathematics has been viewed as a subject favouring both male and female students due to factors like attitude, methods used for teaching and so on. This has resulted to no gender differences between male and female students in Mathematics performance.

Adeleke (2007) conducted a study on gender disparity in mathematical performance revisited: can training in problem solving bring difference between boys and girls in Obafemi Awolowo University? This study examined the problem solving performance of male and female students' mathematical problem-solving performances using Conceptual Learning Strategy (CLS) and Procedural Learning Strategy (PLS). The sample was drawn from three intact Senior Secondary School Two (SSII) classes from three local government Areas of Osun State in Nigeria and were taught for a period of eight weeks. Findings of the study showed a non-significant difference in the performance of males and females in the two learning strategies. But a significant difference was recorded in the performance of males when comparing the two groups and also in the performance of females in the two



groups. The study therefore concluded that when training of problem solving is carried out in mathematics using Conceptual and Procedural Learning Strategies males and females will perform equally well without any significant difference hence there is no gender difference.

Ajai and Imoko (2015) conducted a comparative study on gender differences in mathematics achievement and retention scores. The study was undertaken to assess gender differences in mathematics achievement. The design of the study was pre–posttest quasi-experimental. Four hundred and twenty eight senior secondary one (SS I) students using multistage sampling from ten grant-aided and government schools were involved in the study. Two hundred and sixty one male students and one hundred and sixty seven female students were taught algebra using PBL method of instruction. Algebra Achievement Test (AAT) constructed by the researchers was the main instrument used for data collection. Two hypotheses were raised for the study and tested using t-test at .05 level of significance. The study revealed that male and female students did not significantly differ in academic performance thereby revealing that male and female students are capable of competing and collaborating in mathematics. In addition, this finding showed that performance is a function of orientation, not gender. The only problem I found with this study was that, the topic selected for the study was not representative of the mathematical syllabus and that using only PBL method of instruction was not enough to compare the performance in Mathematics. However, the many students employed were encouraging to adequately have a fair view of the performance of the males and females but the

schools could have been reduced in order to increase the number of males and females in each school.

Adeyemi (2014) conducted a study on the effect of gender on secondary school students' academic performance. The study was carried out to investigate the effects of gender on male and female students' academic performance. One hundred and sixty-four subjects randomly drawn from SSII geography students in Ilesa East and West Local Government Council areas of Osun State, Nigeria, took part in the study. Four types of instruments (one stimulus and three testing instruments) were used to collect relevant data for the study. Data were subjected to both parametric and non-parametric analysis, using mean scores, standard deviation, analysis of covariance (ANCOVA) and multiple classification analysis (MCA). Results indicated significant-main effect of gender in Declarative Knowledge Achievement Test (DKTAT). The study further indicated that gender was also found to have significant main effect in Procedural Knowledge Achievement Test (PKTAT). It was concluded that gender has no effect on students' achievement in geography in general, and map work in particular where differences were found in favour of the female students. It was implied from the work that female students need to be encouraged to show more interest in the study of geography in general.

### **Summary of Review of Related Literature**

This literature dealt with the review of literature relevant to the study. It was organized into three main sections – the theoretical, conceptual and empirical framework of the study.

Eccles et al. (1983) propounded the Expectancy Value Theory which was first studied in Mathematics. The theory of Eccles et al. was folded in three major components (expectancies for success, beliefs about ability and subjective tasks value) and the subjective tasks value is broken into four elements (attainment value, intrinsic value, utility value and cost). The theory explains that differences in performance in mathematics according to gender are important at the highest grade levels than at the least levels. The theory therefore suggests that examining male and female performance at different ability levels gives a clear picture of the relationship between the gender of the student and academic achievement than is achieved by merely considering group averages. On the other hand, the theory of performance by Elger (n.d) was also looked at from the view of traditional context, non-traditional context and the organisational context.

The following concepts (concept of academic performance, students' performance as dynamic concept, components of academic performance, measures of improving students' academic performance, importance of students' academic performance in schools, gender academic performance, gender difference in academic performance, and factors that cause differences in student academic performance) were reviewed. The empirical review was done on the research question posed. The researchers review in the current study were on single subject like mathematics, social studies, English, cost accounting but this current study was on Financial Accounting in the Central Region. The current study look at gender differences in Financial Accounting, whether males performed better than females in accounting, factors that bring the differences between male and female students and

what should be done to improve the academic performance of male and female  
Financial Accounting students in order to fill the gaps.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **Overview**

This chapter deals with the procedures and techniques that were followed to carry out the study. It covers the research design, population, sample and sampling procedures, the research instrument used in data collection, data collection procedures and data analysis.

#### **Research Design**

The study adopted descriptive design. Descriptive research deals with relation among non-manipulative variables, since the events or conditions have already occurred (Best & Kahn, 1993). According to Ary, Jacob and Razavieh (1990), descriptive research design focused on how to determine the status of a defined population with respect to certain variables. Some of the variables which were of interest to the researcher were gender differences in academic performance, teacher's views on students' performance in accounting and factors that cause gender differences in academic performance of accounting students.

Fraenkel and Wallen (2000) also stated that descriptive research involved asking the same form of questions often prepared as a questionnaire. In using the descriptive research design, the researcher used the quantitative means of collecting data. In my view the quantitative means of collecting data allowed meaningful

generalization with respect to the numerical relationships which existed in the data, and which reflected the attributes of the entire population. The rationale for selecting this design was to allow the researcher to examine gender differences in performance of Financial Accounting students at the SHS level.

The descriptive design enabled the researcher to determine the relationship between male and female students and academic performance in Financial Accounting. Again, this design was important for the study because it helped the researcher to describe exactly the phenomenon under consideration with intense accuracy without any prejudice. Thus, descriptive research enabled the researcher to examine the situation as it was. Even though the descriptive research design is susceptible to distortion of information through bias, the researcher gave particular attention to the data to safeguard it from the influence of bias either from the researcher or the respondents. Despite the fact that this design has some loopholes such as difficulty in getting respondents to answer questions thoughtfully and honestly, considering this research topic, the researcher realized that the descriptive design was most appropriate since the study did not have any experimental and control groups but reported academic differences of male and female Financial Accounting students just as they appeared.

### **Population**

The population consisted of 5,474 third year Accounting students in the 46 mixed public senior high schools in the Central Region during the 2013/2014 academic year and 137 Financial Accounting teachers. The researcher was interested in only mixed public senior high schools in the region since they are made up of both

male and female students. The study included only senior high school Year 3 students because they had much experience in the learning of the Financial Accounting subject. As a result, these students were in a better position to provide valuable information concerning the topic under investigation. Table 3 presents the population distribution of the respondents.

**Table 3: Population Distribution of the Respondents**

School	Population	Males (%)	Female (%)
Aggrey Memorial SHS	195	144 (74)	51 (26)
Methodist SHS	134	82 (61)	52 (39)
Swedru SHS	214	164 (77)	50 (23)
Breman Asikuma SHS	108	68 (63)	40 (37)
Potsin T. I. Ahmadiyya	238	145 (61)	93 (39)
University Practice SHS	104	73 (70)	31 (30)
Edinaman SHS	166	100 (60)	66 (40)
Nsaba Presbyterian SHS	123	68 (55)	55 (45)
Mando SH/Tech. School	136	110 (81)	26 (19)
Ghana National College	238	100 (41)	138 (59)
<b>Total</b>	<b>1656</b>	<b>1054</b>	<b>602</b>

Source: GES Data, 2013.

### Sample and Sampling Procedure

The total number of third year students in the ten schools was 1656 and 331 were sampled for the study. With the teachers, census technique was used since they were only 137 in number.

Table 4 provides details of the students sampled for the study from the 10 schools.

**Table 4: Distribution of Third Year Students Sampled for the Study**

Name of School	Gender		
	Male	Female	Total
Aggrey Memorial SHS	24	9	33
Methodist SHS	20	13	33
Swedru SHS	25	8	33
Breman Asikuma SHS	21	12	33
Potsin T.I. Ahmadiyya	20	13	33
University Practice SHS	23	10	33
Edinaman SHS	20	13	33
Nsaba Presbyterian SHS	18	15	33
Mando SH/Tech. School	27	6	33
Ghana National College	14	20	34
<b>Total</b>	<b>212</b>	<b>119</b>	<b>331</b>

Source: GES Data (2013)

Multi-stage sampling procedures were used to sample final year students for inclusion in the study. In the first instance, out of the 52 public senior high schools in the region, purposive sampling was employed to select 46 mixed schools out of the total number which offered accounting as a course of study. A sampling frame was constructed to cover the 46 schools after which the lottery method which is one of the simple random sampling procedures was used to select ten schools which is in line with the work done by Sarantakos (1998) and Simon and Goes (2012) who



stated that between 10 and 30 percent of the population would be an ideal sample for any survey study. This procedure was used to allow each of the schools to have an equal chance of being included.

Thus, the disproportionally stratified random sampling procedure (according to gender) based on 33% of the population was then used to select students out of the 1656 third years in the 10 mixed secondary schools selected which gave a total of 331 students. The researcher used the proportion of males to females in each of the schools because that was appropriate for the researcher to obtain the required sample size for the students. This technique was used in order to have a fair representation of male and female students in the selected schools. The technique also ensured that every member of the group was given equal opportunity of being selected.

The justification for the use of census survey for the teachers was that the researcher could cover all the respondents since the number of accounting teachers was not large as stated by Anderson (2004) and Cooper and Schindler (2000). In all, 331 students and 137 teachers constituted the sample for the study.

### **Instruments**

Documentary data in the form of terminal reports (raw scores and grades) of 3<sup>rd</sup> year Financial Accounting students (their 3<sup>rd</sup> year 1<sup>st</sup> term reports) were collected from all the ten schools selected for analysis. The rationale for the use of the terminal reports of the third year Financial Accounting students was that these assessments reflect their current performance. Moreover, the tests were administered under reasonably good conditions and by several administrators (examiners). Thus, factors that tend to destroy the objectivity of test from its administration might have been

eliminated to a great degree. By this, it was hoped that a more objective picture of the study would be obtained.

In addition to this, two sets of researcher-developed questionnaires were also used to collect data from both Financial Accounting students and their teachers. The questionnaire was preferred to other instruments because it was deemed to be the fastest mode of collecting large amount of data from the respondents. The questionnaire was also believed to guarantee confidentiality and anonymity of respondents since it was generally self-reporting, thereby, capable of eliciting more reliable responses. Also, the use of questionnaire is less expensive as compared to other forms of data collection techniques such as interviews and observation.

Both questionnaires had an introductory part which comprised items relating to the demographic information of the respondents, and an assurance of confidentiality and anonymity attached to the responses of the respondents. The questionnaires for both teachers and students consisted of 32 and 31 close-ended items respectively, and two open-ended questions each. The questions were grouped into sections A, B, C, D and E. Section A of the teachers' questionnaire sought to find out the background of the teacher; his/her gender, highest academic qualification, professional status, number of years in teaching accounting as well as the rank of teacher. Section A of the students' questionnaire sought to find out the gender, age, and class size of the students. Sections B, C and D had 8, 3 and 20 statements respectively for both the teachers and the students. The questionnaires were responded to using a 4-point Likert scale labeled: strongly disagree (a value of 1), disagree (a value of 2), agree (a value of 3) and strongly agree (a value of 4).

The Likert scale gauges the degree to which there is agreement or disagreement with the statement representing a common issue. The Likert scale was preferred to other scales because it is the most simple, but an equally efficient approach in terms of graduation. The last item on section D required the respondents to indicate any cause of gender differences in performance that is not part of the statements provided by the researcher. The last section, E, aimed at eliciting views to be employed to bridge gender differences in academic performances of Financial Accounting students.

According to Fraenkel and Wallen (2000), close-ended questions are easy to score, use and code for analysis on a computer. This is because the entire sample responded to the same options, and standardized data are provided. Thus, ratings of items on the instruments were based on the same decisive factor. The questionnaire consisted of personal data of respondents, gender differences in the performance of male and female Financial Accounting students, do males or females perform better in Financial Accounting, factors that cause gender differences in students' performance and what should be done to bridge the gap between male and female accounting students.

### **Pilot-testing of Instrument**

There was a pilot-testing of instrument before actual data collection took place. The pilot-testing was conducted to ascertain the validity and reliability of the instruments. The Sekondi Takoradi Metropolis was chosen for the pilot-testing of instrument because it has similar characteristics like school types, curriculum, professional qualification of teachers, and age of students and also its proximity to

the selected region for the study. The schools that were used for the pilot- testing were Takoradi Senior High School, Fijai Senior High School, Methodist Senior High School, Sekondi College and Shama Senior High School. Teachers and students that constituted the pilot testing were 15 and 30 respectively. The data gathered were analysed and the Cronbach's alpha established for each of the items. The value of Cronbach's alpha obtained for the students' questionnaire was .72 and that of the teachers was .77. According to DeVellis (1991), such a reliability co-efficient is said to be respectable. Therefore, the instrument was considered reliable and appropriate to collect the relevant data to answer the questions posed. Also, according to Frankel and Wallen (1990), as a rule of thumb in a research the reliability co-efficient should be 0.7 or preferably higher. With this, the instrument could be said to be of good quality capable of collecting useful data for the study. The queries that came out of the items were catered for. The reliability of the instrument was determined using Statistical Product and Service Solutions (SPSS 16.0). All these actions were taken to ensure that the instrument is capable of collecting quality and useful data for the study.

### **Data Collection Procedure**

Using a letter of introduction from the researcher's department, I collected the Senior High School (SHS 3) terminal reports (3<sup>rd</sup> year 1<sup>st</sup> term reports) from the ten schools selected for analysis. The teachers and students of each school were contacted and an appropriate date for data collection was scheduled. However, the respondents were briefed about the purpose of the study and an appeal made to them to read all instructions carefully before responding to the items and could call for

explanations if they were not clear of any item on the questionnaire. An assurance of anonymity was given to them as research ethics demand.

Teachers and students completed and returned their questionnaires either on the same day after administering them or gave a specific day and time to come for them. However, the researcher had to visit some schools on two or three occasions before some questionnaires were retrieved. This was done to increase the return rate. The administration of questionnaires and its collection took six weeks to complete. In all a total of 468 questionnaires were administered and all of them were returned. The questionnaire was personally administered to the respondents because the researcher wanted to ensure high accessibility and response rate.

### **Data Analysis**

Data collected from the students and teachers from the field were analysed by coding closed-ended items on the questionnaire and coding of recurring responses with regards to open-ended items. This made the analysis of the data easier. With the help of data analysis software (Statistical Package for Service Solutions), coded data were entered and analysed. The dependent variable was gender differences in performance in senior high schools Financial Accounting subject and the independent variables were the factors which cause differences in students' performance.

The data was analysed using both descriptive statistics (means, standard deviation, percentages and frequencies) and inferential statistics (t-test). With regards to research question one, mean and standard deviation was used to analyse teachers responses while the independent samples t-test was used to analyse student's

responses. Concerning research question two, independent samples t-test was used to analyse students terminal report while mean and standard deviation was used to analyse teachers and student's responses as well as research question three. Finally, research question four was reported by classifying respondent's response into themes.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### Overview

This chapter presents results and discussion of the study. This will be dealt with in two sections namely; discussion of the preliminary data and discussion of the main data.

#### Background Information of Respondents

This section discusses the background information of the respondents. It covers the sex of teacher and student respondents, age of the students, class size of the students, number of streams of classes of students, highest academic qualification of teachers, professional qualification or status of teachers, number of years of teaching experience, and the ranks of the teachers.

**Table 5: Characteristics of Teacher Respondents**

Variable	Subscale	No.	%
Sex	Male	103	75.2
	Female	34	24.8
Highest academic qualification	HND	7	5.1
	Bachelor's Degree	113	82.5
	MA/M.Phil	13	9.5
	MBA	4	2.9

**Table 5 cont'd**

Professional qualification	Professional	104	75.9
	Non- professional	33	24.1
Number of Years in Teaching	0 -5 years	64	46.7
	6 – 10 years	48	35.0
	11years and above	25	18.3
Rank of Teachers	Superintendent 1	1	0.7
	Superintendent 2	20	14.6
	Senior Superintendent	19	13.9
	Principal		
	Superintendent	70	51.1
	Assistant Director 1	19	13.9
	Assistant Director 2	8	5.8

Source: Fieldwork, 2013

Table 5 presents data on background information of the teacher respondents. With regard to the sex of the teachers, it was indicated that 103 constituting 75.2% of the teacher respondents were males whilst 34 representing 24.8% of them were females. The implication from Table 5 is that most of the accounting teachers are males while few of them are females. It can be said that males like the Financial Accounting subject more than females, or the subject seems to favour males more than females that is why there are more males teaching Financial Accounting than females. The 24.8% of the teacher respondents being females while the greater percentage of 75.2 being males could also cause the students, especially the females,



to feel that perhaps Financial Accounting is masculine subject and therefore might not give it the attention it deserves. This could in effect deter them from trying to pursue the subject at a higher level of study which can affect their performance.

It can be observed from Table 5 that seven respondents of the teachers representing 5.1% hold Higher National Diploma (HND), 113 constituting 82.5% of them are Bachelor's Degree holders, 13 representing 9.5% possess Master of Arts (M. A.) or Master of Philosophy (M. Phil.), and four representing 2.9% of them hold Master of Business Administration (MBA) qualifications. This shows that the majority of the teachers are Bachelor's Degree holders 82.5%, followed by M.A or M. Phil 9.5%, HND 5.1% with MBA recording the least proportion of 2.9%. These figures and percentages again indicate that we have people who are academically qualified to handle Financial Accounting in the Ghanaian SHSs.

Table 5 presents the professional qualification or status of teacher respondents. It shows that 104 representing 75.9% of the teachers were professional teachers, while 33 forming 24.1% of them were non-professional teachers. It again reveals that there are quite a large number (24.1%) of teachers teaching at the various senior high schools in Ghana who are not professional teachers. This could have some effect on the teaching and learning of Financial Accounting, since most of such non-professional teachers might not be able to employ methods that are suitable for teaching Financial Accounting because they do not have the needed professional expertise.

Similarly, it can be seen from Table 5 that 64 (46.7%) of the teachers have worked or taught for five years or less (0-5years), 48 representing 35% of them have

taught for six to ten years (6-10 years), and 25 representing 18.3% of them have taught for eleven years and over (11<sup>+</sup> years). This is an indication of the fact that most of the teachers (53.3%) have taught for more than five years, and can therefore be assumed that they have enormous experience in teaching which can facilitate the teaching and learning of Financial Accounting in senior high school.

Finally, Table 5 shows that only one representing 0.7% of the teachers has the rank of Superintendent 1, 20 representing 14.6% of them have Superintendent 2, 19 constituting 13.9% of them were Senior Superintendent, 70 (51.1%) were Principal Superintendent, another 19 (13.9%) of them have the rank of Assistant Director 1, and eight representing 5.8% are Assistant Director 2. It is clear from the Table that most (97 representing 70.8%) of the teachers are above the rank of Senior Superintendent while only one representing 0.7% of the teachers is of the rank of Superintendent 1. This tells us that most of the teachers understand the rudiments of teaching and learning and can therefore make the teaching and learning of Financial Accounting more meaningful and interesting.

**Table 6: Characteristics of Student Respondents**

Variable	Subscale	No.	%
Sex	Male	200	60.4
	Female	131	39.6
Age Range (Years)	13 – 15	2	0.6
	16 – 18	229	69.2
	19 – 21	100	30.2

Source: Fieldwork, 2013

Table 6 shows the background data of the students respondents. It was observed that 200 representing 60.4% of the student respondents were males, and 131 forming 39.6% of them were females. This means there were more males than females studying Financial Accounting at the senior high school level in Central Region. This is obvious from the percentages evident in Tables 5 that 75.2% and 60.4% of the teacher respondents and student respondents respectively were males, whereas the remaining 24.8% of the teachers and 39.6% of the students were females. This is an indication of the fact that Financial Accounting is more of masculine subject than feminine one as shown by the small percentages of female teachers and students of Financial Accounting in the Central Region. Concerning the age of the students, it was noted that two representing 0.6% of the students were within ages 13 – 15 years, 229 constituting 69.2% of them were within ages 16 – 18 years, and 100 forming 30.2% of the students were within ages 19 – 21 years. This indicates that, most of the students used for the study were within the ages of 16 – 18 years which is very normal with third year senior high students in Ghana.

Observation can be made from Table 7 that, seven representing 2.1% of the students had class sizes within 21–30 students per class, three representing 0.9% of them had within 31–40, 108 constituting 32.6% of them had class sizes within 41–50, and 213 representing 64.4% of the students have class sizes between 51–60 students. Thus, most (64%) of the students had class sizes within 51–60 students per class. This means that Financial Accounting classes are relatively larger compared to a normal average class size of 25. Such large classes have the potential to affect the choice of teaching methods.

**Table 7: Class Profile of the Students**

Variable	Subscale	No.	%
Class Size	21 – 30	7	2.1
	31 - 40	3	0.9
	41 – 50	108	32.6
	51 – 60	213	64.4
Number of Streams of Accounting Classes	1	48	14.5
	2	85	25.7
	3	131	39.6
	4	67	20.2

Source: Fieldwork, 2013

Thus, teachers are more likely to use lecture method or other forms of teacher-centered methods since the modal or common class size does not favour the use of student-centered approaches (such as discussion, role play and dramatization) which do not offer the students the opportunity to have practical exposure of what they learn.

Table 7 depicts that 48 representing 14.5% of the students have single stream of accounting class, 85 constituting 25.7% of them have double or two streams of accounting classes, 131 representing 39.6% have three streams, and 67 forming 20.2% of the students have four streams of accounting classes. Thus, most of the students and for that matter the schools have more than a single stream of accounting classes. Out of a total of 331 students only 48 (14.5%) of them had a single stream while the remaining 283 representing 85.5% have two or more streams of accounting

classes in their schools. It also reveals that Financial Accounting is studied by more students in senior high schools in the Central Region.

### **Presentation and Discussion of Main Results**

This section will focus on the individual research questions for the discussion. This will be done to confirm or disconfirm the various literatures reviewed under chapter two.

#### **How do Male and Female Students Perform in Financial Accounting?**

The first research question tried to find out which of the sexes performs better than the other. Regarding this question, the researcher provided statements to help seek the opinions of the respondents (both teachers and students). Table 8 depicts the opinions of teachers and students regarding the research question and Table 9 presents an independent t-test of students' performance using terminal reports.

Table 8 shows mean and standard deviation analysis to ascertain which gender performs better in Financial Accounting. The mean values of both teachers and students' response were calculated and a mean of means and mean of standard deviation obtained for each group (that is, students and teachers). In the view of the teachers, a mean of means ( $M = 3.56$ ,  $SD = .75$ ) indicated that on average the teachers agreed with the fact that, males perform better than females in Financial Accounting, and a standard deviation of .75 however gives an indication of the dispersion of the various responses to each other, in other words, the teachers' response are scattered around the mean of 3.56 (males perform better). Also, in the view of the students, a mean of means ( $M = 3.68$ ,  $SD = .78$ ) revealed that the students also agreed to the statement that, males perform well in Financial

Accounting, and a standard deviation of .78 gives an indication of the dispersion of the various responses to each other, in other words, the students' responses are scattered around the mean of 3.68 (males perform better).

**Table 8: Mean and Standard Deviation of Respondents (Teachers and Students) on how do Male and Female Students Perform in Financial Accounting**

Statement	Teachers		Students	
	M	SD	M	SD
Males and females perform equally in				
Financial Accounting	3.56	.77	3.14	.78
Females perform better than males in				
Financial Accounting	3.31	.73	3.95	.73
Males' performances in Financial				
Accounting are significantly higher than				
those of females	3.82	.75	3.96	.84
<b>Mean of means /St.D</b>	<b>3.56</b>	<b>0.75</b>	<b>3.68</b>	<b>0.78</b>

Source: Fieldwork, 2013

Mean Ranges = Student perform better	2.6 - 4.00
Student perform worse	0.00 - 2.5

In effect, it was noted that the male students studying Financial Accounting perform better than females. This finding confirms a study by Udoukpong, Emah and Umoren (2012) on gender differences in performance between male and female students which revealed that, males' performances outweighed those of females but contradicts the results of Hyde and Mertz (2009) who asserted that female students in the U.S. perform better than their male counterparts in mathematics performance.

Gammie, Paver, Gammie and Duncan (2003) also found out from their study that females rather perform better than their male counterparts in the first year accounting which was undertaken via distance learning during the third year of the programme.

**Table 9: Independent t-test Results of Students' Academic Performance in Financial Accounting Using Terminal Report**

Gender	M	SD	T	Df	P
Male	55.46	22.36	1.54	329	.039
Female	52.00	15.63			

\*Significance level .05

Table 9 presents an independent t- test of students' performance in Financial Accounting using terminal reports. It was obvious from Table 9 that the performance of male Financial Accounting students (M = 55.46, SD = 22.36) is higher than the performance of female Financial Accounting students (M = 52.00, SD = 15.63;  $t=1.54$ ,  $df = 329$ ) at two-tailed probability  $> .05$ . This implies that significant difference in the mean scores of male students (55.46) and female students (52.00) in Financial Accounting indicating that, male students perform better than female students in Financial Accounting. This finding is in line with the findings of Abdu-Raheem (2012) who found that males performed better than females in mathematically related subjects.

### **What Factors Cause Gender Differences in Students' Academic Performance in Financial Accounting?**

Research question two aimed to assess the causes of gender differences in students' performances in Financial Accounting. Both teachers and students were

asked to respond to the items on the questionnaire. The results were presented in Table 10.

**Table 10: Mean and Standard Deviation of Respondents (Teachers and Students) on Causes of Gender Differences in Students' Academic Performance in Financial Accounting**

Statement	Teachers		Students	
	M	St.D	M	SD
Male students have higher cognitive abilities and higher average IQs than females.	2.58	.89	2.65	.88
Male students have different brain size, skills and cognitive abilities from females	2.43	.82	2.64	.93
Female students have high personal aptitude and put in much effort in school work than males.	2.28	.82	2.58	.86
Females are more conscientious and have stronger work ethic than males	2.57	.87	2.57	.88
Males have better study skills than females.	2.47	.76	2.79	.87
Male students take their academic work more serious than females.	2.52	.86	2.50	.93
Male students tend to be more truants than females.	2.66	.90	2.95	.92
Accounting is seen as masculine than feminine subject or career.	2.38	.88	2.69	.93
Female students are not motivated to pursue Financial Accounting at higher level of learning.	2.66	.92	2.46	.90
Teachers do not expect female students to outperform male students in Accounting.	2.07	.97	2.20	.99
Female students have regular class attendance than males.	.70	1.07	3.19	.91
Male students are more engaged in co-curricular activities than females	2.92	0.93	2.72	.88
Female students tend to seek guidance and counseling services than male students	2.70	.90	3.08	.76



**Table 10 cont'd**

Methods and resources used to teach favour female students than the male students	2.33	1.06	1.85	.74
Female students are more success driven and career motivated than males.	2.30	.86	2.30	.91
Instructors and examiners favour female students in one way or the other than male students.	2.31	1.08	2.69	.95
Female students fear Mathematics hence they always practice Financial Accounting since it involves calculation to avoid failure.	2.59	.87	2.61	.95
Male students manage their time better than females.	2.48	.88	2.37	.93
Female students have more learning material (textbooks) than male students.	2.39	.91	2.80	.97
<b>Mean of Means / St.D</b>	<b>2.49</b>	<b>0.86</b>	<b>2.61</b>	<b>0.90</b>

Source: Fieldwork, 2013

Scale = 1 SD, 2 D, 3 A, 4 SA

Table 10 presents the causes of gender differences among accounting students' performance. A mean of means ( $M = 2.49$ ,  $SD = .86$ ) indicates that the teachers generally disagree with the fact that, the factors listed are truly the factors responsible for gender differences in students' performances in Financial Accounting, an average standard deviation of .86 gives an indication of the dispersion of the various responses from each other, in other words, the respondents responses are scattered around the mean of 2.49 (Disagree).

However, in the view of the students, a mean of means ( $M = 2.61$ ,  $SD = .90$ ) indicates that the students generally agree with the fact that, the factors listed are truly the factors responsible for gender differences in students' performances in Financial Accounting, an average standard deviation of .90 shows the level of

dispersion of the various responses from each other, in other words, the respondents response are scattered around the mean of 2.61 ~ 3.0 (Agree).

In effect, it was adduced that both teachers and students agreed to items on the factors that cause differences in performance between males and females in Financial Accounting. But it is also important to note that there was a difference on the response from both teachers and students concerning the causes of gender differences in performance. This could attribute to the fact that in the teaching/learning process, the student is always at the receiving end during the instructional period whereas the teacher is the facilitator and seen in most instances as the inventory of knowledge. This probably accounts for the difference in opinion when it comes to the actual factors responsible for gender difference in performance of students in Financial Accounting.

These results confirmed the findings of Rayburn and Rayburn (1999) who indicated that seeking guidance and counselling services, time management, success driven and career motivation influence academic performance. Again, the study is in line with Wally-Dima and Mbekomize (2013) who state that males possess larger brain sizes than females and have higher average IQs. Again, this study confirms the study of Goedde and Ward (1996) who say daily routine of student's practice of accounting and students taking their accounting work seriously are positively related to performance. According to Solagbade, Olayinka and Adeyinka (2013), the determinants of career interest choice investigated have significant effects on career interest choice but not all the determinants have positive significant effects on academic performance of senior secondary school leavers in Financial Accounting.

In a similar vein, the current study is in line with the results of Kirk and Spector (2006) who revealed that student regular class attendance, use of teaching and learning materials, students motivation are all significantly related to success in cost accounting.

### **What could be done to Improve the Academic Performance of Students Studying Financial Accounting?**

The research question three was meant to seek the respondents' (teachers and students) ideas on what could be done to improve the academic performance of students studying Financial Accounting. The respondents' views on this issue are presented and discussed under six themes. These are: demystifying students' wrong perception; students' motivation; effective guidance and counseling; prospects in accounting; teacher-student relationship and multiplicity of teaching methods.

#### **Demystifying Students' Wrong Perception**

Two hundred and fifteen (65%) of the students stated that there was the need to erase the impression that Financial Accounting is difficult and that they need to work hard as they climb the academic ladder. One male student stated that: "Accounting is not difficult and I think this is what we are failing to understand". A female student also stated that: "Accounting is an interesting subject just that it is full of calculations. It should not be seen as a difficult subject". These statements clearly portray the idea that accounting being difficult should be demystified so that students, particularly female students, will tell themselves they can do it. This is in the sense that the more they feel and think that the subject is difficult, the lower their performance will be. The female students must be made to appreciate the fact that with continuous practice they can improve on their performance to the level of their

male counterparts. This will go a long way to help bridge the gap in performance between the sexes.

### **Students' Motivation**

Students should be encouraged and motivated by their accounting teachers, parents and family members to take their studies more seriously in order to boost their morale to improve upon their performances. Students' motivation can never be overemphasized if students' academic performance must be improved. One hundred and eighty nine (57%) of the students were of the view that their teachers must show strong interest in them and motivate them to perform. The students believe that motivation could be both intrinsic and extrinsic in value. One student stated that: "my teacher is too hard on us and at times I feel so de-motivated in studying Accounting". Teachers must therefore try in their best capacities to motivate students so as to develop a positive perception and strong desire towards the study of Financial Accounting. The female students should be motivated accordingly in this regard so as to catch up with their male counterparts.

The study confirms the findings of a study carried out by Brown (1999) who indicated that parental involvement is an important factor in student achievement. Parents who have a high level of commitment to their children help them to perform better. Brown (1999) was of the view that parents need to motivate students by setting high standards, maintain a stable home environment as well as showing interest in their academic work. This will help encouraged students to put in much effort in their studies. If this measure is carried out seriously on the part of the female students, their academic performance in Financial Accounting will surely improve.

### **Effective Guidance and Counselling**

Another measure that students think should be taken into consideration to ensure good students academic performance is effective guidance and counselling services. One hundred and sixty-nine (51%) of the students were of the view that effective guidance and counselling will go a long way in helping them to develop positive learning styles as well as work behaviours which will help them to perform in the long run. If effective guidance and counselling services are intensified in senior high schools, it might help to deal with students learning and other forms of difficulties in order to improve students' academic performance. This is because most of the female students seem to have many academic problems than their male counterparts which adversely affect their academic performance in Financial Accounting.

This finding is in line with that of Bhavnagar and Gupta (1999) who found out that counselling programme helps the individual find solutions to his own problems. Due to this reason, they asserted that guidance and counselling services should be an integral part of education.

### **Prospects in Financial Accounting**

Students expressed their view about the fact that their teachers and school principals should frequently make them aware of the prospects of Financial Accounting. Two hundred and twenty eight (69%) of the students were clear on the fact that when they become aware of what they stand to gain for pursuing accounting, they will begin to give the subject the necessary attention it deserves. One of the female students stated that: "I would perform better if my teacher always

makes it clear to me what I would gain from learning Accounting”. Thus, having realized that the female students’ performance in Financial Accounting is low compared to their male colleagues, there is the need to adequately encourage them to develop a positive attitude so that the identified gap in the performance of male and female students can be narrowed. One of the ways to do this could be that more female Financial Accounting teachers should be employed to serve as role models to the female accounting students. When this is done, the female students would come to the realization that they can improve on their performance because some females have made it in this field of study (Accounting) and therefore they can also make it with determination, focus and hard work.

### **Teacher-Student Relationship**

One hundred and seventy two (52%) of the students said that they normally find it difficult to approach their teachers outside normal class hours to seek clarification on concepts and topics that they find difficult to understand and because of this they are not able to perform well. A female student stated that: I believe that a good teacher-student relationship will help me do well. One of the benefits of good teacher-student relationship is that academically poor students tend to perform well. This is why Stipek (2002) said that, many of the students who are not doing well academically are the same ones who have a poor relationship with their teachers. This implies that teachers need to create an atmosphere in such a way that students will feel comfortable to approach them to discuss pertinent issues that worries them concerning their learning and anything that will hinder their academic progress.

The finding confirms that of Akey (2006) who revealed in his study that one method of enhancing student engagement is to cultivate a culture of achievement in the classroom where students feel at ease relating well with their environment. He indicated that good and productive environment is gingered by good relationships between the teacher and the student as well as student and student.

### **Multiplicity of Teaching Methods**

Another measure identified by the students to improve on their academic performance is the fact that there is the need for their teachers to employ different methods of teaching to give them a better understanding of what their teachers teach to help narrow the gap. Some of the students, 282 (85%) were of the view that teachers need to adopt variety of methods in their teaching more preferably those that will involve most of them in the lesson to enable students share ideas when learning during the teaching and learning process. A female student said: “I feel good and understand better when teachers use different approaches when teaching”. From what the students said, it can be implied that because no single method of teaching has the potential of satisfying all students at the same time, therefore when accounting teachers employ wide-array of teaching methods they stand the chance of helping all their students to understand the lessons. Teachers should also take their time when teaching the subject and should not rush students through the subject in order to make students develop interest for the subject and erase any preconceived erroneous notions that they may be having about the subject.

Ho: There is Statistically Significant Difference Between male and Female Students in Their Academic Performance in Financial Accounting?

H<sub>1</sub>: There is no Statistically Significant Difference Between male and Female Students in Their Academic Performance in Financial Accounting?

The research hypothesis sought to investigate whether there is a statistically significant difference or not between male and female students in their academic performance in Financial Accounting. The view of teachers and students were sought out. To be able to answer this research question, a mean of means was used to analyse teachers' views on gender differences in students' academic performance while independent sample t-test was used to analyse students' responses. The results were presented in Tables 11 and 12.

**Table 11: Means and Standard Deviation of Teachers' views on Gender Differences in Academic Performance of Financial Accounting Students**

Statement	Teachers	
	M	St. D
Female students mature earlier than male students	3.75	.95
Males and females perform equally in Financial Accounting	0	0
There is difference in male and female students' performance in Financial Accounting	3.80	.75
Females perform better than males in Financial Accounting	0	0
Males find Financial Accounting more difficult than females	3.15	.89



**Table 11 cont'd**

Females easily understand Financial Accounting concepts than males	3.35	.82
A lot of females excel in Financial Accounting than males	3.27	.70
Females are able to follow Financial Accounting principles better than males	3.41	.85
Females are able to make better analysis than males	3.41	.85
Males are able to make logical and systematic presentations than females	3.62	.81
<b>Mean of means/St.D</b>	<b>3.47</b>	<b>0.83</b>

Source: Fieldwork, 2013 Scale = 1 SD, 2 D, 3 A, 4 SA

Means ranges 0.00 – 2.5 = teachers disagreement concerning gender differences while 2.6 – 4.00 = teachers agreement concerning gender differences.

As shown in Table 11, a mean of means ( $M = 3.47$ ;  $SD = 0.83$ ) indicated that the teachers commonly agreed to the statement that the performance of Financial Accounting students is dependent on gender, an average standard deviation of 0.83 gives an indication of the dispersion of the various responses to each other, in other words, there is heterogeneous response among the teachers concerning gender differences in Financial Accounting. This means that, in the view of the teachers whether a student performs well or not depends on the gender of the student.

These findings were incongruence to the study of Xiang et al. (2003) and Xiang, McBride and Bruene (2004, 2006) who came out with a finding that male students and female students did not differ significantly in their subjective task values toward accounting as a subject area. But the results were in line with the

findings of Lee, Fredenburg, Belcher and Cleveland, (1999) and Solomon, Lee, Belcher, Harrison and Wells (2003) who proved that gender differences among students was as a result of perceived gender appropriateness of the activities performed. This implies that when students are engaged in works deemed as gender appropriate, their expectancy-related beliefs tend to grow.

Table 11 presents students' views on gender differences in performance of Financial Accounting students. The independent t-test was used to determine whether there are gender differences in the performance of the students. It is obvious from Table 11 that the performance of Male Financial Accounting students (M = 18.84, SD = 3.54) is higher than the performance of Female Financial Accounting students (M = 16.00, SD = 2.74;  $t=-7.79$ ,  $df= 229.08$ ) at two-tailed probability  $< .05$ . This implies that statistically significant difference in the mean scores of male students (18.84) and female students (16.00) in Financial Accounting indicates there are gender differences in performance of Financial Accounting students.

**Table 12: Independent t- test Results on Gender Differences in Academic Performance Among Financial Accounting Students**

Gender	M	SD	T	Df	P
Male	18.84	3.54	-7.79	229.08	.04
Female	16.00	2.74			

\*Significance level .05

This finding confirmed the result of Weerakkody and Ediriweera (2008), Atovigba, Vershima, O'Kwu and Ijenkeli's (2012), Awofala (2011) and Kiptun, Rono, Too, Bii and Too (2013) who indicated that male and female students differ in

their academic performance, hence there are gender differences in performance but contradicts the findings of Adeleke (2007) who showed that there is no gender difference in the achievement of Nigerian secondary school students offering Mathematics. Many researchers (Eccles et al., 1993; Fredricks & Eccles, 2002; Jacobs et al., 2002) who have examined gender differences have shown that, compared with females, males like arithmetic more hence they place higher importance on attending accounting class (Eccles & Harold, 1991; Lee et al., 1999; Wigfield & Eccles, 1992). It is important to note that these researchers adopted Expectancy Value Theory of Achievement in their study.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

#### **Summary**

This chapter presents a summary of the key findings that arose from the study. The chapter also contains the conclusions and recommendations that were made based on the findings of the study. It again suggested areas for further research.

#### **Overview of the study**

The driving force of this research was to find out gender differences in students' academic performance in Financial Accounting at the Senior High School level. Specifically, the study aimed at examining: how male and female students perform in Financial Accounting; the factors that cause gender differences in students' academic performance in Financial Accounting; what could be done to improve academic performance of students studying Financial Accounting and whether there is a statistically significant difference between male and female students in their academic performance in Financial Accounting.

The study adopted the descriptive design. The population consisted of 1,656 third year accounting students in the 10 mixed public senior high schools in the Central Region during the 2013/2014 academic year and a teacher population of 137. Multi-stage sampling procedures were used to sample final year students for inclusion in the study. In all, 331 students and 137 teachers constituted the sample

for the study. Documentary data in the form of terminal reports of 3<sup>rd</sup> year Financial Accounting students (their 3<sup>rd</sup> year 1<sup>st</sup> term reports) were collected from all the ten schools selected for analysis. In addition to this, two sets of researcher-developed questionnaire were also used to collect data from both Financial Accounting students and their teachers. Descriptive statistics (means, standard deviation, frequencies, and percentages), inferential statistics (independent t-test) and the thematic approach was used to analyse the research questions to find out the mean performance of the senior high school Financial Accounting students.

### **Key Findings**

The key findings of the study were that:

Male students studying Financial Accounting perform better than females. The mean of (M=55.46) and (M=52.00) of the male and female students respectively showed that male students perform better than female students in Financial Accounting.

The study revealed that most of the teachers on average (M=2.58) agreed that there are differences in cognitive abilities and IQs for the sexes. The study further revealed that most of the students (M=2.61) agreed to the factors that cause gender differences in accounting students' performance but the teachers disagreed (M=2.49) on the statement.

Some of the measures that can be employed to bridge the gap between the performance of males and females in financial accounting include provision of needed learning resources, provision of effective counselling services in schools,

demystifying the perception that accounting is difficult and also extra classes should be organised to supplement normal instructional hours.

There are gender differences in students' academic performance in Financial Accounting. Difference in the mean scores of male students (18.84) and female students (16.00) in Financial Accounting also indicates there are gender differences in performance.

### **Conclusions**

Male Financial Accounting students perform better in the subject as compared to their female counterparts in the Central region. In the view of both the teachers and students in the region, there is a complete disparity in performance between male and female students. Even though, there seem to be some variance in the opinions of both respondents, it is not very huge to sway their perception.

With regards to the factors that cause gender differences in students' academic performances in Financial Accounting, it was concluded that the views of the teachers teaching financial accounting vary from that of the students. To the teachers, the causes of such a disparity in performance of students in the Central Region cannot be restricted to the items identified by the researcher. This means that, there are more factors responsible for the difference in performance between males and females than what have already been identified and mentioned by numerous researchers. On the other hand, the students believe otherwise, stating that the factors listed by the researcher are the real factors responsible for the gender differences in the students' performances in the subject. This implies that, in the Central Region, the teachers view on the factors responsible for the difference in performance

between males and females in Financial Accounting differ from those of the students.

On the issue of what should be done to bring the performances of both sexes at par, it emerged from the study that students, particularly the females, should be encouraged to erase the impression that the subject is difficult and to work harder as they climb the academic ladder. Female Accounting students should be provided with the needed material that will enhance their interest in the subject. They should be encouraged by their accounting teachers, parents and family members to take their studies more seriously in order to boost their morale to improve upon their performances to a common level with the male students. Again, teachers should adopt variety of methods in their teaching more preferably those that will involve most of the students in the lesson to enable students share ideas when learning and bridge this gender gap.

Finally, performance of students in Financial Accounting is dependent on gender. The study has shown that, in the view of both teachers and students in the Central region, the performance of students in Financial Accounting will vary based on the gender of the student. However, such a difference is not statistically significant and can therefore be attributed to chance. It can be stated that, gender plays a key role in determining the level of performance exhibited by Financial Accounting students.

### **Recommendations**

Considering the findings and conclusions drawn from the study, the following recommendations have been made for curriculum planners, policy makers,

and teachers and other stakeholders in education with reference to the teaching and learning of Financial Accounting at the senior high school level in Ghana.

Since accounting is more of practical discipline and involves mathematical reasoning, group work, term project and homework or assignment should be encouraged among students by teachers. Teachers should put their students into groups and assign them group task. This grouping should be done in such a way that each group will comprise both sexes, and students with different performance levels since the students will find the ideas of their colleagues useful. Teachers should try to make the subject appealing to students by making it practical and relevant to the lives of the students as much as possible.

Also, on the causes of gender differences in performance of Financial Accounting students, it is recommended that teachers should adopt appropriate teaching and learning resources and materials to facilitate student understanding as well as encouraging the students to put up their best during instructional process. Also, school counsellors should orient the students especially those with negative perception about the nature of Financial Accounting.

Government, Parent Teacher Associations and benevolent organizations should help to provide adequate teaching and learning resources such as textbooks, pamphlets, journals, magazines, well stocked libraries, classrooms among others in schools. Teachers should endeavour to make maximum use of their instructional hours, vary their methods of teaching, use relevant teaching and learning materials like cashbook, bank statements, give adequate number of exercises and assignments, and mark them promptly and provide feedback to the students. Teachers should



again organize educational trips to industries and companies for the learners to realize the practicality and the relevance of the subject in real life. Parents and guardians should take key interest in the education of their children and wards in school by providing them with their educational needs such as textbooks, pens, pocket monies and sometimes special classes should be arranged for students especially during vacations. Parents and guardians should make sure that they supervise the learning activities of their wards in the house.

Finally, the researcher suggests to Ministry of Education, policy planners, and school principal and other stakeholders of education to advice the teachers to motivate the female students to have a positive attitude and perception about Financial Accounting and also provide them with specialised instruction in order to deal with the gender gap. Students who wished to pursue accounting should not be discriminated against based on their sex but they should be offered the equal opportunity to study the course. Again, even though there are gender differences in performance of Financial Accounting students, such differences should not be emphasised so much by teachers, parents and employers since most females or women have been found to be competent accountants and financial analyst in our dispensation.

### **Suggestions for Further Research**

With reference to this research and its limitations, the following recommendations are proposed.

1. In order to have a broader view on gender differences in students' academic performance, the researcher recommend that further studies should be

conducted in other regions to widen the scope of the schools and research population.

2. Further studies should concentrate on students' attitude towards learning of Financial Accounting.
3. Again, further studies should look at the factors that cause gender differences in academic performance of Financial Accounting students in senior high schools in Ghana.

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## **APPENDICES**



APPENDIX A

**UNIVERSITY OF CAPE COAST**

**FACULTY OF EDUCATION**

**Department of Arts & Social Sciences Education**

TELEPHONE: +233 03321 35411/ +233 03321 32480/3,

EXT. (268), Direct: 35411.

Telegrams & Cables: University, Cape Coast.

OUR REF: DASSE/ED/CSP/11/0006

YOUR REF:



University Post Office,  
Cape Coast, Ghana.

*Date: 28<sup>th</sup> May, 2013*

TO WHOM IT MAY CONCERN

LETTER OF INTRODUCTION

The bearer of this letter Mrs. Leticia Sam is a graduate student of the Department of Arts and Social Sciences Education of the University of Cape Coast, Ghana.

She requires some information from your institution for the purpose of writing a thesis as requirement of M. Phil Degree Programme.

I would be grateful if you would kindly allow her to collect the information from your institution. Kindly give the necessary assistance that Mrs. Leticia Sam requires to enable her to collect the information.

Thank you for your co-operation.

A handwritten signature in black ink, appearing to read 'S. Asare-Danso'.

**REV. DR. SETH ASARE-DANSO**  
**HEAD OF DEPARTMENT**

DEPARTMENT OF ARTS &  
SOCIAL SCIENCES EDUCATION  
UNIVERSITY OF CAPE COAST  
CAPE COAST, GHANA

**APPENDIX B**  
**UNIVERSITY OF CAPE COAST**  
**DEPARTMENT OF ARTS AND SOCIAL SCIENCES EDUCATION**  
**CAPE COAST**  
**QUESTIONNAIRE FOR FINANCIAL ACCOUNTING STUDENTS**

**Dear respondent,**

This questionnaire is to help the researcher to collect data on gender differences in the academic performance of male and female students and it is purely for academic purpose thus, your responses and comments will be treated with absolute confidentiality. You are therefore kindly requested to provide sincere and objective responses to the questions. Any information provided will be treated confidential.

**Section A: Background Information**

1. Gender

Male [ ]

Female [ ]

2. Age range

13-15 [ ]

16-18 [ ]

19-21 [ ]

3. Class size

21 – 30 [ ]

31 – 40 [ ]

41 – 50 [ ]

Other specify.....

4. Number of streams

1 [ ]

2 [ ]

3 [ ]

Other specify.....

**Section B: How do male and female students perform in Financial Accounting?**

Please, indicate the extent of your agreement or disagreement with the statements 1 representing “Strongly Disagree”, 2 “Disagree”, 3“Agree”, 4 “Strongly Agree” (Please tick only one) to reflect male and female students’ performance in learning Financial Accounting.

NO.	STATEMENT	SD	D	A	SA
1.	Males and females perform equally in Financial Accounting				
2.	Females perform better than males in Financial Accounting.				
3.	Males’ performance in Financial Accounting are significantly higher than those of females.				

**Section C: Causes of gender differences in academic performance of Financial Accounting students.**

Please, indicate the extent of your agreement or disagreement with the statement. 1 representing “Strongly Disagree”, 2 “Disagree”, 3 “Agree”, 4 “Strongly Agree” (Please tick only one) to reflect causes of gender differences in academic performance in Financial Accounting.

NO	STATEMENT	SD	D	A	SA
1.	Male students have higher cognitive abilities and higher average IQs than females				
2.	Male students have different brain size, skills and cognitive abilities from females.				
3.	Female students have high personal aptitude and put in much effort in school work than males.				
4.	Females are more conscientious and have stronger work ethic than males.				
5.	Males have better study skills than females.				
6.	Male students take their academic work more seriously than females.				
7.	Female students take their academic work more seriously than males.				
8.	Accounting is seen as masculine than feminine subject or career.				
9.	Female students are not motivated to pursue Financial				

	Accounting at higher level of learning.				
10.	Teachers do not expect female students to outperform male students in Accounting.				
11.	Methods and teaching learning resources use to teach Financial Accounting favour female students than the male students.				
12.	Male students are more engaged in co-curricular activities which tend to take much of their time than their female counterparts.				
13.	Female students tend to seek guidance and counselling services than male students.				
14.	Male students tend to be more truant than females.				
15.	Female students are more success driven and career motivated than males.				
16.	Instructors and examiners favour female students in one way or the other than male students.				
17.	Female students fear Mathematics hence they always practice Financial Accounting since at it involves calculation to avoid failure.				
18.	Male students manage their time better than females.				
19.	Female students have more learning materials (textbooks) than male students.				

20. Others please specify.....

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**Section D: What could be done to improve academic performance of students studying Financial Accounting?**

Suggest what could be done to improve the academic performance of students studying Financial Accounting.

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**Section E: Gender differences in the academic performance in Financial Accounting**

Please, indicate the extent of your agreement or disagreement with the statements 1 representing “Strongly Disagree”, 2 “Disagree”, 3 “Agree”, 4. “Strongly Agree” (Please tick only one) to reflect gender differences in academic performance of Financial Accounting Students.

<b>NO.</b>	<b>STATEMENT</b>	<b>SD</b>	<b>D</b>	<b>A</b>	<b>SA</b>
1.	Males and females perform equally in Financial				

	Accounting				
2.	There is difference in male and female students performance in Financial Accounting				
3.	Females perform better than males in Financial Accounting				
4.	Males find Financial Accounting more difficult than females				
5.	Females easily understand Financial Accounting concepts				
6.	A lot of females excel in Financial Accounting than males				
7.	Females are able to follow Financial Accounting principles better than males				
8.	Females are able to make better analysis than males				
9.	Males are able to make logical and systematic presentations than females				

**APPENDIX C**  
**UNIVERSITY OF CAPE COAST**  
**DEPARTMENT OF ARTS AND SOCIAL SCIENCES EDUCATION**  
**CAPE COAST**  
**QUESTIONNAIRE FOR FINANCIAL ACCOUNTING TEACHERS**

**Dear respondent,**

This questionnaire is to help the researcher to collect data on gender differences in the academic performance of male and female Financial Accounting students and it is purely for academic purpose. You are therefore kindly requested to provide sincere and objective responses to the questions. Any information provided will be treated confidential.

**Section A: Background information**

1. Gender :

Male

Female

2. Highest Academic qualification:

HND

Bachelor's Degree

M.A./M.Phil

M.B.A.

3. Status:

Professional

Non-professional



4. Number of years of teaching

Financial Accounting at SHS:

0 – 5 years

6 –10 years

11years and above

5. Rank:

Superintendent 1

Superintendent 2

Senior Superintendent

Principal Superintendent

Assistant Director 1

Assistant Director 2

**Section B. How do male and female students perform in Financial Accounting.**

Please, indicate the extent of your agreement or disagreement with the statements 1 representing “Strongly Disagree”, 2 “Disagree”, 3“Agree”, 4 “Strongly Agree” (Please tick only one) to reflect students’ attitude towards learning Financial Accounting.

NO.	STATEMENT	SD	D	A	SA
1.	Males and females perform equally in Financial Accounting.				
2.	Females perform better than males in Financial Accounting.				

3.	Males' performance in Financial Accounting are significantly higher than those of females.				
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**Section C: Causes of gender difference in academic performance of Financial Accounting students.**

Please, indicate the extent of your agreement or disagreement with the statement. 1 representing "Strongly Disagree", 2 "Disagree", 3 "Agree", 4 "Strongly Agree" (Please tick only one) to reflect students' attitude towards learning Financial Accounting.

NO	STATEMENT	SD	D	A	SA
1.	Male students have higher cognitive abilities and higher average IQs than females				
2.	Male students have different brain size, skills and cognitive abilities from females.				
3.	Female students have high personal aptitude and put in much effort in school work than males.				
4.	Females are more conscientious and have stronger work ethic than males.				
5.	Males have better study skills than females.				
6.	Male students take their academic work more seriously than females.				
7.	Female students have regular class attendance than males.				

8.	Accounting is seen as masculine than feminine subject or career.				
9.	Female students are not motivated to pursue Financial Accounting at higher level of learning.				
10.	Teachers do not expect female students to outperform male students in Accounting.				
11.	Methods and teaching learning resources use to teach Financial Accounting favour female students than the male students.				
12.	Male students are more engaged in co-curricular activities which tend to take much of their time than their female counterparts.				
13.	Female students tend to seek guidance and counselling services than male students.				
14.	Male students tend to be more truant than females.				
15.	Female students are more success driven and career motivated than males.				
16.	Instructors and examiners favour female students in one way or the other than male students.				
17.	Female students fear Mathematics hence they always practice Financial Accounting since at it involves calculation to avoid failure.				
18.	Male students manage their time better than females.				

19.	Female students have more learning materials (textbooks) than male students.				
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20. Others please specify.....

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**Section D: What could be done to improve academic performance of students studying Financial Accounting?**

Suggest what should be done to improve academic performance in Financial Accounting between males and females.

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**Section E: Gender differences in academic performance of Financial Accounting students.**

Please, indicate the extent of your agreement or disagreement with the statements on 1 – 4 scale: 1 representing “Strongly Disagree”, 2 “Disagree”, 3 “Agree”, 4 “Strongly Agree” (Please tick only one) to reflect differences in academic performance of Financial Accounting Students.

<b>NO.</b>	<b>STATEMENT</b>	<b>SD</b>	<b>D</b>	<b>A</b>	<b>SA</b>
1.	Female students mature earlier than male students.				
2.	There is difference in male and female students performance in Financial Accounting				
3.	Males find Financial Accounting more difficult than females.				
4.	Females easily understand Financial Accounting concepts than males.				
5.	A lot of females excel in Financial Accounting than males.				
6.	Females are able to follow Financial Accounting principles better than males.				
7.	Females are able to make better analysis than males.				
8.	Males are able to make logical and systematic presentations than females				

APPENDIX D

THE WEST AFRICAN EXAMINATIONS COUNCIL, ACCRA  
MAY/JUNE WASSCE – STATISTICS ON PERFORMANCE IN FINANCIAL ACCOUNTING: ( 2011 - 2013)

YEAR	SUBJECT	TOTAL ENTRY	TOTAL SAT	NUMBER AND PERCENTAGE OBTAINING GRADE										
				CREDIT AND ABOVE GRADES						TOTAL CREDIT	PASS GRADES			FAIL
				A1	B2	B3	C4	C5	C6	A1-C6	D7	E8	D7 - E8	F9
2011	MALE	21,778	21,641	3,610 16.6%	2,166 10%	5,263 24.3%	1,620 7.4%	1,513 6.9%	2,978 13.7%	17,150 79.2%	1,980 9.1%	1,435 6.6%	3,415 15.7%	1,039 4.8%
	FEMALE	11,611	11,546	1,548 13.4%	1,056 9.1%	2,870 24.8%	870 7.5%	906 7.8%	1,698 14.7%	8,948 77.4%	1,155 10%	801 6.9%	1,956 16.9%	625 5.4%
	TOTAL	33,389	33,187	5,158 15.5%	3,222 9.7%	8,133 24.5%	2,490 7.5%	2,419 7.2%	4,676 14%	26,098 78.6%	3,135 9.4%	2,236 6.7%	5,371 16.1%	1,664 5% <sub>1</sub>
2012	MALE	25,584	25,442	2,454 9.6%	1,713 6.7%	4,887 19.2%	2,232 8.7%	2,357 9.2%	3,969 15.6%	17,612 69.2%	2,948 11.5%	2,134 8.3%	5,082 19.8%	2,675 10.5%
	FEMALE	13,249	13,172	1,129 8.5%	849 6.4%	2,339 17.7%	1,167 8.8%	1,251 9.4%	2,122 16.1%	8,857 67.2%	1,604 12.1%	1,233 9.3%	2,837 21.4%	1,416 10.7%
	TOTAL	38,833	38,614	3,583 9.2%	2,562 6.6%	7,226 18.7%	3,399 8.8%	3,608 9.3%	6,091 15.7%	26,469 68.5%	4,552 11.7%	3,367 8.7%	7,919 20.4%	4,091 10.5%
2013	MALE	56,651	56,269	4,439 7.8%	3,044 5.4%	8,049 14.3%	4,022 7.1%	3,232 5.7%	8,135 14.4%	30,921 54.9%	7,418 13.1%	6,476 11.5%	13,894 24.6%	11,454 20.3%
	FEMALE	28,816	28,650	2,109 7.3%	1,343 4.6%	3,691 12.8%	1,822 6.3%	1,552 5.4%	4,184 14.6%	14,701 51.3%	3,901 13.6%	3,570 12.4%	7,471 26.0%	6,478 22.6%
	TOTAL	85,467	84,919	6,548 7.7%	4,387 5.1%	11,740 13.8%	5,844 6.8%	4,784 5.6%	12,319 14.5%	45,622 53.7%	11,319 13.3%	10,046 11.8%	21,365 25.1%	17,932 21.1%