CAN GIRLS BECOME ACHIEVERS IN STUDYING FINANCIAL ACCOUNTING?

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ABSTRACT

The aims of this classroom-action research were to discover the performance of the girls we taught,help them to improve their academic performance in financial accounting, help us improve our own teaching practices, and enableus to make instructional changes.All the thirtygirlsin the classtook part in the study because they performed poorly after taking the pre-test. We changed conditions in the classroom to promote effective teaching and learning. We used class tests, assignments, teacher journals or field notes, student reflective logbooks, and observations to collect data. We coded the data we obtained and presented the results in tables. We used percentages to analyse the findings. Post intervention results showed that the performance of the students improved consistently over the study period. Results suggest that studentscan become achievers in the subjects they study if teachersmake them engaged learners.

Keywords: *Academic performance, classroom-action research, financial accounting, intervention strategies, senior high school.*

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1. Introduction

When we listen to people talking about the progress of students, we will often hear terms such as bright, average, and poor. In addition, when teachers assign grades to the work of students, we will often see such terms as excellent, very good, good, and poor. We may explain that bright students and students with excellent and good grades have high intelligent quotient (IQ). We may also say that they work hard. However, we may explain that average or poor students have low IQ and that they do not work hard. As teachers, how do we find out that the students we teach are bright, average or poor students? How do we conclude that their academic attainments are high or low, excellent, good or poor?

One of the duties of effective teachers is to assessthe performance of students (McMillan, 2001, 2013)towards achieving learningobjectives. According to Stiggins (1987), teachers spend 20 to 30% of their professional time dealing with assessment matters.Assessment is therefore a vital part of the work of teachers.

In accounting, teachers measure students' understanding of accounting principles. Teachersalso measure students' abilities to journalise, post, balance and rule accounts. In addition, teachersmeasure students' abilities to prepare a trial balance, final accounts, and the statement of financial position. Evidence, however, suggests that accounting students are not able to perform these tasks well (West African Examinations Council, 2003). However, how can teachers ensure that all students, regardless of their social, economic, and intellectual backgrounds learn and become useful and productive members of society? How can teachers enhance students' motivation to learn and achieve academic goals on their own?

To resolve these issues, we tried to determine the knowledge and skills of our students in financial accounting. This background information, we thought, was necessary to enable us build upon what our students already know.We therefore gave a test to the students on what they learnt in the previous year. Our guiding principle was that teaching proceeds from the known to the unknown (Aggarwal, 2009). We found the performance of the students not to be encouraging. We thought they did not do well because of time lapse.On another occasion, we examined them on what we taught them.In this second test too, the students, especially the girls did not do well. Thus, the problem we faced was how to improve the academic performance of our girls in financial accounting.

The rest of the study is organised as follows: Section 2 reviewsthe literaturerelated to the study; Section 3 is about the methodology;Section 4 presents the findings; and Section 5 discusses the results. The last section is the implications and conclusion.

2. Literature Review

The review covers the theoretical framework of the study and the empirical basis of the study.

2.1 Theoretical Framework of the Study

There are many theories of teaching and learning. This study dwells on the reinforcement-learningtheory, constructivist learning theory,self-efficacy theory, and experientiallearning theory.

Reinforcement-learning theory recommends rewarding or encouraging desirable behaviour and punishing or discouraging undesirable behaviour (Mahavandi & Malekzadeh, 1998). Under reinforcement-learning theory, teachers reward students who make desirable or correct responses. For example, when a student turns in homework on time, the teacher praises the student for the early submission of homework. By praising the student, the student is more likely to turn in homework on time again (Santrock, 2010). By contrast, the teacher may stop criticising a student for the late submission of homework when the student turns in homework on time. By withholding criticism, the student is more likely to turn in homework on time again (Santrock, 2010).

Constructivists believe that the best way students learn is to take active part in the lesson (Santrock, 2010) rather than when they are passive listeners. Thus, students "learn by doing". In additions, teachers do not directly feed students with information. Rather, teachers encourage students to explore their world, discover knowledge, reflect, and think critically. Teachers therefore encourage students to practice in varied contexts, so that learning becomes or remains appropriate to a wider or more restricted range of stimuli (Santrock, 2010).Constructivism also includes emphasis on collaboration (Aggarwal, 2009). In collaborative learning, students work together in order to know, understand, and learn with and from each other (Santrock, 2010).

The self-efficacytheory holds that feelings of "self-efficacy" influence the ability of individualsto learn new skills and information (Santrock, 2010).According to Bandura (2009), self-efficacy is a major factor in determining whether students will achieve. In the views of Schunk (1991), self-efficacy influences a student's choice of learning tasks. Students with low

self-efficacy for learning avoid learning tasks that are challenging because they feel that they cannot do them. However, high self-efficacy students believe that they have the ability, motivation, and situational contingencies to complete a task successfully (Bandura, 1996). This results in higher achievement (Caprara, Barbaranelli, Steca & Malone, 2006; Pajares,2002)because students set challenginggoals for themselves and develop stronger efforts to perform.

Kolb (2000) proposed a four-stage learning cyclecalled experiential learning. This involves direct and active personal experience combined with reflection and feedback. The theory asserts that without reflection we would simply continue to repeat our mistakes. The experiential learning cycle includes active experimentation, reflectiveobservation, abstract conceptualisation, and concrete experience. Active experimenters like doing things, carrying out plans,and getting involved in new experiences. They adaptto changing circumstances and solve problemsin an intuitive, trial-and-error manner.Reflective observers use inductive reasoning to understand what they did, thought, and felt during the experience. In abstract conceptualisation, individuals prefer to solve problems, make decisions, apply ideas, and try to understand the general principles behind the relationship between the action and its effects. Finally,concrete experimenters learn by doing, acting, sensing, and feeling. They put their experiences into practice.

2.2 Empirical Basis of the Study

Doe-Lawson (2007) studied the academic performance of students in financial accounting at a public senior high school in Ghana. The results showed that only 51% of the students obtained Grade C or better before intervention. After the intervention, 74% of the students got Grade C or better.In addition, the pre-intervention results showed that 8% of the students had Grade F. However, the post-intervention results showed that only 2% of the students had Grade F.

In a classic study in the USA, Swope and Schmitt(2006) examined the academic performance of economics majors over an entire curriculum. They found that gender was not a significant predictor of grade point average in economics courses. They also found that students who were decisive, organised, and self-regimented performed better than students who were curious, adaptable, and spontaneous.

Ackumey's (2006) review of the literature showed that many factors affected the academic performance of students.These included the teacher's inadequate knowledge of the subject

matter, teacher's instructional methods, and lack of motivation. Other factors were large class sizes and lack of teaching and learning materials.

Ganaku (2006) studied the academic performance of girls in business mathematics at a public senior high school in Ghana. The girls said that duties at home, poor timing of the lesson, poor teaching techniques, and lack of textbooks affected their performances in business mathematics.

Adu (2006) also identified many factors that affected the academic performance of students in business management at a publicsenior high school in Ghana.These factors included the lateness of both teachers and students to school, lack of motivation of students, and lack of enough exercises, assignments, and homework for students. Other factors were an overloaded syllabus, the negative attitude of students towards the study of business management, and lack of teaching and learning materials. The rest were the weak foundation of students in business management in earlier years, and the poor social and economic background of the students. However, Addae (2006) found that the most important factor that affected the academic performance of students in business management at the senior high school level was lack of study skills.

Previous researches by the Wellesley College Center for Research on Women (WCCRW)(1992) and Sadker and Sadker (1994) showed bias against girls in USA classrooms. The results showed that teacherscalled girls less than they calledboys to answer questions. The studies also showed that boys received more attention when answering questions. In addition, the boys received more encouragement to work through problems.

3. Research design/methods/procedures

This study was a classroom-action research (Hopkins, 2008).It followed the four-stage method in action research as proposed by Mertler andCharles (2010): planning, acting, developing, and reflecting.Its aims were to discover the performance of the girls we taught, assist them to improve their performance, help us improve our own teaching practices, and enableus to make instructional changes.

The sample included the 30 girls in our form two class. We chose all of them because they needed help to improve their academic achievement. We used a questionnaire, an interview, and field notes to collect data from the students. The students also kept reflective logbooks in which

they recorded changes in their learning. All the four instruments are appropriate tools for collecting data in a classroom-based research (Hopkins, 2008).

We used two questionnaires. The first questionnaire was a structured, pre-intervention questionnaire. It contained seven items.It sought to elicit information from the students about how they learn financial accounting and the teaching style they found most conducive to learning.Based on theresponses the students gave in the pre-intervention questionnaire, we change the physical structure of the classroom to better facilitate group learning. The second questionnaire was a structured, post intervention questionnaire. It sought to find out from the students the progress they made after the intervention. It contained six items.We gave thequestionnaires to other lecturers for their comments and criticisms in order to make them valid and reliable.

We used a semi-structured, in-depth interview to collect information from the students. The interview covered seven areas. These werestudent progress and group work, teacher's evaluation of student learning, and group work, student concentration, keeping of a student diary, student's performance and progress, and homework.

We kept a journal in which we made observations. This helped us to focus on the most important issues in hand and to recognise signs of inadequacy or improvement in our classroom learning. Often,we recorded our reflections on information the students provided in their diaries and activities in the class in our field notebooks.

The provided a direct and immediate recounting of the experiences of students. The reflective logbook had five sections:

a) Activities carried reflective logbooksfrom the previous day
b) Activities performed today
c) How activities for the day were carried out
d) What student learnt for the day - what went well, what was difficult
e) Plans for further work

We made a chart with two columns. We labelled them "pluses" and "wishes". The students listed their suggestions for us to consider. The "pluses" represented the things we did well; the "wishes" represented what students think we should have done. We used the information on the list to adapt our teaching techniques.

We gave exercises, assignments and tests to students. We also provided students with feedback. In addition, students journalisedtheir learning experiences and reflected on their learning. Students also evaluated their own learning. Finally, we monitored the effectiveness of students' learning styles.

We took many steps to address ethical issues. We explained the purpose of the study to students and sought their consent for taking part in it. We promised the students confidentiality and assured them that we would not disclose their identities in the research report. As part of the right to take part in the study, we also told the students that they had the right to withdraw from the study whenever they wished. This, we think, was only fair to the benefit of their continued interest in the research, and to keep them involved and informed (McNiff, Lomax & Whitehead, 2003).

We personally administered the pre- and post-intervention and questionnaires to the students after class hours in the afternoon. We took two days to interview the students. Wetape-recorded the interview, which we later transcribed. We interviewed the students in the classroom after class hours in the afternoon. The interview for each student lasted about 15 minutes. We collected the diaries each week because we feared the students would misplace them. We presented the results in both text and tabular forms. We analysed the results using percentages and by looking for patterns. These patterns guided us in improving the academic performance of the students.

4. Results of the Study

Tables1, 2 and 3 show the pre-intervention results while Tables 4 and 5 show the post-intervention results.

Table 1: ***Performance of the Girls in Financial Accounting***

Grade Obtained	Frequency	Percentage
A1 (80-100%)	0	0.0
B2 (75-79%)	0	0.0
B3 (70-74%)	0	0.0
C4 (65-69%)	4	13.3
C5 (60-64%)	9	30.0
C6 55-59%)	3	0.0

D7 50-54%)	5	16.7
E8 (45-49%)	6	20.0
F9 (0-49%)	3	10.0
TOTAL	30	100.0

Source: Authors' Fieldwork

Table 1 shows that none of the girls obtained either Grade A or Grade B2. However, about 53% of them obtained Grade C and 10 % of them failed.

Table 2: ***Factors Affecting the Performance of the Girls***

Factor	Frequency	Percentage
Inability to study on my own	6	20.0
My own perceptions about accounting	4	13.3
Lack of encouragement	8	26.7
Negative comments from my teachers	6	20.0
Inability to ask questions in class	6	20.0
TOTAL	30	100.0

Source: Authors' Fieldwork

Table 2 shows that the major factor that affected the performance of the girls in financial accounting was lack of encouragement.

Table 3: ***Importance of Factors Affecting the Performance of the Girls***

Factor	Rank
Lack of encouragement	1
Inability to study on my own	2
Inability to ask questions in class	3
Negative comments from my teachers	4
My own perceptions about accounting	5

Source: Authors' Fieldwork

Table 3 shows that the most important factor affecting the performance of girls in financial accounting was lack of encouragement. The least important factor that affected the performance of the girls was the girls' own perception about accounting.

We used the results in Tables 2 and 3 to design strategies to assist the students improve their performance. The results in Table 4 show how we assisted the students to improve their performance.

Table 4: ***Strategies for Improving Students' Academic Performance***

Strategy	Order of importance*			
	1	2	3	4
Works in small groups to discuss problems	15	10	5	0
Works in pairs to solve problems	14	9	4	3
Teacher gives encouragement	12	8	6	4
Combination of Ways	10	5	4	11
Teacher controls the learning	0	6	10	14
Works alone	4	7	6	12

Source: Authors' Fieldwork

*Order of importance: 1= most important, 4= least important.

Table 4 shows that majority of the girls improved their academic performances by engaging in small group discussions, working in pairs and through teacher motivation. The least preferred strategies were the teacher controlling the learning situation and working alone. About 50% of the class preferred a combination of strategies while another 50% hated a combination of strategies.

On seatwork and homework, nearly 80% of the class completed and submitted their assignments. Some were doing extra work outside class time. About 70% of them found it useful as a consolidation of class learning. Those who did homework wanted to avoid boredom while those who did not do it considered it as an extra burden on them or because I did not place emphasis on it.

Table 5: ***Performance of the Girls in Financial Accounting after Intervention***

Grade Obtained	First Month		Second Month		Third Month		Fourth Month	
	No.	%	No.	%	No.	%	No.	%
A1 (80-100%)	0	0.0	0	0.0	2	6.7	4	13.3
B2 (75-79%)	0	0.0	1	3.3	2	6.7	4	13.3
B3 (70-74%)	1	3.3	3	10.0	4	13.3	6	20.0
C4 (65-69%)	4	13.3	3	10.0	6	20.0	8	26.7
C5 (60-64%)	8	26.7	8	26.7	6	20.0	5	16.7
C6 55-59%)	5	16.7	4	13.3	4	13.3	3	10.0
D7 50-54%)	7	23.3	5	16.7	4	13.3	0	0.0
E8 (45-49%)	3	10.0	5	16.7	2	6.7	0	0.0
F9 (0-49%)	2	6.7	1	3.3	0	0.0	0	0.0
TOTAL	30	100.0	30	100.0	30	100.0	30	100.0

Source: Authors' Fieldwork

Table 5 shows that none of the girls obtained either Grade A or Grade B2 in the first month after intervention. However, about 3% of them obtained Grade B3; about 57% of them obtained Grade C, while about 7 % of them failed. In the second month, none of the girls obtained Grade A. However, about 13% of them obtained Grade B, 50% of them obtained Grade C, while about 3 % of them failed. In the third month, about 7% of the girls obtained Grade A, 20% of them obtained Grade B., and about 53% of them got Grade C. None of the girls failed. In the fourth month, none of the girls failed. None of them also obtained either Grade D or Grade E. However, about 13% of them obtained Grade A, about 23% of them obtained Grade B and about 53% of them had Grade C.

5. Discussion of Results

The results showed that the girls performed better during the post-intervention period than the pre-intervention period. Only 53% of the girls got Grade C or better before the intervention. However, all the girls got Grade C or better after the intervention. In addition, none of the girls had Grade F after the intervention but 10% of the girls got Grade F before the intervention. These results compared favourably to those obtained in the study of Doe-Lawson (2007). In Doe-Lawson's study,51% of the students obtained Grade C or better before intervention. After

the intervention, 74% of the students got Grade C or better. In addition, Doe-Lawson's pre-intervention results showed that 8% of the students had Grade F. However, the post-intervention results showed that only 2% of the students had Grade F.

Many factors made the girls to perform poorly before the intervention. First, the girls were not motivated to learn. Teachers did not encourage the girls to study financial accounting. This result therefore confirmed earlier ones (Adu, 2006; WCCRW, 1992; Sadker and Sadker, 1994) that showed that girls received less encouragement from teachers than do male students.

Second, the results showed that the girls lacked study skills. The girls were not able to study on their own. They were also not able to ask questions in class because they felt shy and they did not want other students to laugh at them. These findings confirmed the findings of Addae (2006) and the WCCRW(1992).They also support the views of Santrock (2010). Addae (2006) found that girls performed poorly in business management because they were not able to study on their own. Similarly, the WCCRW (1992) found that teachers called girls less frequently in the classrooms to ask questions. In Santrock's (2010) view, some of the reasons students give for examination failure includes lack of effort and failure to study for the particular test.

A third major factor that made the girls to perform poorly was the negative comments of the teachers about the girls. This was the same result that the WCCRW (1992) found in the USA regarding teachers' negative comments about girls and how these led to the poor performance of the girls. Santrock (2010) also mentioned teacher bias as a major reason for the poor performance of students on tests or assignments.

Lastly, the results showed that about 13% of the girls had a poor attitude towards the study of financial accounting. These girls had a negative view about accounting. They explained that accounting is a "male" subject and only a few girls study it. However, this factor was of little importance to the girls (Table 3). It also contradicts the findings of Adu (2006) and Santrock (2010) that a major factor that affected the poor performance of students was their negative attitude towards the study of the subject.

Many of our students were weak in linguistic intelligence (Gardner, 2011). Their journal keeping was scanty and unreflective for the most part. Nevertheless, those who did not fear writing showed a good awareness of their progress and difficulties in learning. In addition, many

of the students showed a growing commitment to improve their learning as they made plans at the end of class and executed them.

The group work, reflective logbooks, and students' evaluation of their work enabled the students to engage in self-regulatory learning (Randi & Corno, 2000). In addition, the teacher motivations, scaffolding students' tasks, and providing immediate feedbacks helped the students to improve on their performance. The students became more organised learners, they learnt how to ask relevant questions, they learnt how to set achievable goals, they learnt how to put plans into action and monitor outcomes, and they learnt how to work in teams (Deci &Ryan, 1994; Santrock, 2010; Weary, 2000). As Ackumey (2006), Ganaku (2006) and Doe-Lawson (2007) noted, the use of student-centred teaching strategies made the students to become more engaged learners.

6. Implications for Teaching and Learning

The results of the study have manyimplications for teaching and learning. First, teachers must actively engage students in learning by giving them tasks to complete. These tasks must be interesting and challenging. They must also stimulate thestudents' curiosity. Though assignments must be challenging, they should not overwhelm the students. Second, teachers must encourage students to solve problems actively and conduct meaningful inquiry. Students must also engage in reflection. Third, teachers must help students to set challenging but realistic goals. In addition, teachers must provide reward and feedback to their students following success or failure at a task.In the fourth place, teachers must attend to how students learn by including authentic assessment in their classes, in which they ask for students' opinion on how things have workedwell, what has failed to work, andwhat might be changed.Fifth, teachers must try to get students to document their views of learning and achievement in journals or reflective logs. Finally, teachers must view themselves as helpers of learning. The fundamental reason for teaching is to help the student to learn something.

7. Conclusion

Action research is a very personal approach to research. This placed us at the centre of the research. It compelled us to reflect honestly on our practice, on its contradictions, on its flaws, and the way we committed ourselves to try to improve. In other words, we took full responsibility for our actions. Wesystematically investigated them (McNiff& Whitehead, 2006), reflected upon action, and acted upon reflection (Hargreaves & Fullan, 2012). It allowed us the

freedom to make mistakes and changed them as we sought to enhance our practice. If a plan did not work, we tried another. This is the value of experiential learning (Mainemelis, Boyatzis & Kolb, 2002;McNiff, 2013).

The traditional mode of teaching accounting lays emphasis on the learning process instead of students. However, this study shows that the teaching and learning of accounting must provide opportunity to students to enact roles in finding solutions to their problems (Mordedzi, 1999). Thus, students took charge of their own learning and they were self-regulated. They defined learning goals and problems that were meaningful to them and they evaluated how well they had achieved the goals. In addition, the students understood that learning is social activity(Mordedzi, 1999). They discover concepts and connections and apply skills by interacting with others.

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Authors' contributions

Veronica conceptualised and planned the project under the guidance of Benjamin. Veronica gathered the data and prepared the initial manuscript. Benjamin reviewed the literature, analysed the data and made critical revisions to the manuscript. All authors read and approved the final manuscript.