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A Mixed-Method Study of the Effect of Instructional Approach on Financial Accounting Achievement among Secondary School Students

Umar Inuwa*

Faculty of Technology Education, Abubakar Tafawa Balewa University, Bauchi, Nigeria

Abstract: The study focused on the effect of an instructional approach on the financial accounting achievement of secondary school students in Gombe State, Nigeria. The present study used explanatory sequential mixed-method design; 120 students participated in the study. The students were selected at random from six secondary schools. They were equally and randomly divided into two groups, viz.; cooperative and conventional approach. The interview was conducted with four students of the experimental group. Achievement Tests is used as data collection instrument. The study observed that at the stage of the pre-test, the achievement of cooperative and control group students did not differ significantly. This suggested that at the initial stage, the students were equal in their achievements. Nonetheless, at the stage of the post-test, it was proved that the financial accounting achievement of students who were taught using a cooperative approach was significantly better than that of their counterparts who were taught using and conventional approach. This suggested that a cooperative approach is the most effective approach for improving the financial accounting achievement of secondary school students. Consequently, the study recommended that curriculum planners, teachers in secondary schools should be encouraged to adopt a cooperative approach in teaching financial accounting to improve the achievement of students in the subject.

Keywords: mixed-method, instructional approach, students' achievement, financial accounting

JEL Classification: M40, M41, M49
Paper Type: Research

1. INTRODUCTION

Financial accounting involves recordkeeping, preparing, analysing, and communicating financial information (Francis, 2014). It is one of the most popular vocational subjects in Nigeria, which taught at the secondary school level aimed at preparing the students to obtain the relevant skills and knowledge that are necessary for the growth and

* Corresponding author: E-mail: alummari@gmail.com, +2348069563101

development of the nation (Seyi, 2014). Another aim of teaching the subject in secondary schools include; teaching students career in the field accounting, preparing them to play their economic roles as consumers, workers,, and citizens, preparing them to advance their study in accounting and related courses at the higher level of education (the Federal Republic of Nigeria, 2004). Thus, the subject is very vital to the Nigerian economy because it prepares future managers, entrepreneurs, accountants, and other financial controllers (Francis, 2014).

Even though the significant roles played by the financial accounting in the Nigerian economy, over the years, the secondary student's achievement in the subject is not encouraging, particularly in their final examination (Adeleke, Adeyinka & Binuomote, 2013). The consistent and massive failure among financial accounting students of secondary school in the final examinations mostly is a result of the teaching method utilised by the teachers (Afolabi & Akinbobola, 2009; Aremu & Sokan, 2008; Ezeagba, 2014). Specifically, persistent use of traditional teaching methods (Mohammed, 2011).

Nevertheless, the traditional method focuses entirely on the intellectual and ignores experiential learning (Salako, Eze & Adu, 2013). Previous studies (see, for example, Majoka, Khan, & Shah, 2011; Hossain & Tarmizi, 2013; Abimbola & Abidoye, 2013) argued that the traditional method was not effective in improving the achievement of students. They also argued that in the traditional method, students are not fully involved in the learning process. Likewise, Akintelure (1998) maintained that the subject financial accounting is not learned by simple memorisation of principles and rules of accounting, so it requires the students to participate fully in the learning process. The use of the traditional method, which involves telling, reading, and concepts memorisation has failed to address the issue of poor achievement of students in secondary school (Kohle, 2002). Therefore, an appropriate method for teaching financial accounting at the secondary schools needs to be sought to address the consistent and massive failure of secondary students, particularly in their final examination.

The previous studies (see, for example, Hossain & Tarmizi, 2013; Gokkurt, Dundar, Soylu, & Akgun, 2012) have focused on the cooperative approach effect on mathematics achievement of secondary students. The studies noted the effectiveness of the cooperative approach in improving the mathematics achievement of students. They recommended that studies should be conducted in the future to examine the cooperative approach effect on students' achievement in various subjects of secondary school. To the best of the authors' knowledge, no published study was found to focus on the effect of a cooperative approach on financial accounting achievement among secondary school students. Given this, the paper, therefore, aims to examine the effect of a cooperative approach on the achievement of secondary students in financial accounting in Gombe state, Nigeria. Specifically, the study aims to examine whether the cooperative approach will enhance secondary school students' achievement in financial accounting more than the conventional approach.

The findings of the present study will benefit the students of financial accounting because a suitable method of teaching has a positive and significant effect on students' success. Specifically, the outcome of the study will also be significant to the stakeholders, especially curriculum planners, government, and teachers of financial accounting in secondary schools in terms of adopting the most appropriate and effective method of teaching financial accounting, which will help in improving their students' achievement in the subject. Also, the consistent and massive failure among students of secondary school in financial accounting may be minimised.

2. LITERATURE REVIEW

A cooperative approach is an instructional approach in which learners work in small learning groups to address the problems and other learning objectives while the teacher acts as a facilitator (Duplass, 2005). It is the approach that allows students to work together to attain their learning objectives (Abrami, Poulsen, & Chambers, 2004). Several studies have examined the effect of a cooperative approach on students' achievement in different subject areas. For instance, Jebson (2012) focused on the impact of cooperative learning on the mathematics performance of students in secondary school. The study found cooperative learning as a valuable approach for helping the learners to accomplish a better learning outcome in mathematics. The effectiveness of cooperative learning approach could be relative because the students of the cooperative learning approach receive academic and emotional support, which helps them to persist against any obstructions they face in their learning. Similar findings were reported in the studies of Alabekee and Samuel (2015); Gokkurt et al. (2012); Hossain and Tarmizi (2013) and Zakaria, Chin, and Daud (2010) in the context of Malaysia.

Recently, studies were conducted to examine the effect of cooperative learning on the physics achievement of secondary school students. Adebayo and Judith (2014), in the context of Zambia, found that cooperative learning improved students' achievement and motivation towards learning physics. Similar to Adebayo and Judith (2014), Gambari and Yusuf (2014) argued that due to the carefully organised activities of the cooperative learning approach, the approach contributed significantly to the achievement of secondary school students in physics. These findings are consistent with Adeyemi (2008); Salako, Eze, and Adu (2013) and Majoka and Khan (2011) in social studies. Alike, Sani (2015), in his quasi-experimental study, investigated the effect of a cooperative approach on secondary school students' achievement in chemistry. The study evidenced the effectiveness of cooperative approach over the conventional approach on students' achievement in chemistry. The approach produced effective learning outcomes by creating learning interest that enhanced students' achievement in the subject.

Moreover, the cooperative approach enables students to derive their patterns of thoughts and meaning from the learning materials through interaction with peers, which led to a better understanding of the chemistry concepts (Cagatay & Demircioglu, 2013). In the studies conducted by Ibraheem (2011) and Oludipe and Awokoya (2010), similar findings were reported. Besides, Oludipe and Awokoy (2010) argued that the chemistry anxiety of students was minimised drastically as a result of their exposure to the cooperative approach. The following hypotheses are formulated based on the discussions above:

H1 Before exposing students to the treatment, there is no significant difference in the achievement of cooperative and conventional group students.

H2 After exposing students to the treatment, there is no significant difference in the achievement of cooperative and conventional group students.

Following the Hypotheses H1 and H2s, a framework of this study is developed (see Figure 1) to show the relationship between the instructional approach and the students' achievement in financial accounting.

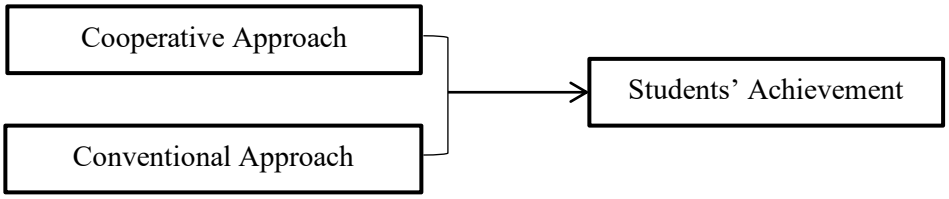

Figure 1. Research Framework

3. METHODOLOGY

3.1 Population and Sample

The population of the present study comprises all financial accounting students of level II senior secondary school in Gombe state. This is because, at this level in Nigeria, students are grouped based on their area of specialisation (Akanbi & Kolawole, 2014). So, this study focused on only students who have an interest in accounting and related courses. A sampling technique used in the study is cluster sampling. One hundred twenty students were selected from 6 secondary schools in Gombe state to form the sample size of the study. Four students participated in the interview.

3.2 Research Design

A sequential explanatory mixed-method design was used in the study to examine the effect of a cooperative approach on the financial accounting achievement of secondary school students. In this design, there are two different phases (Creswell, 2003). Firstly, experiment design (i. e. pre-test-post-test-control group) was used to collect the quantitative data. The design is an experimental design which comprises of the experimental and control group. The pretest and posttest were given to both groups to determine the effect of the treatment (Sambo, 2005; Sekaran & Bougie, 2013). The only difference between the experimental and control group is that the treatment was given to the experimental group while the control group was taught using the traditional method (Sambo, 2005; Sekaran & Bougie, 2013). Figure 2 shows the design as follows:

G1	R	Y11	X	Y12
G2	R	Y21		Y22

Figure 2. Pre-test post-test control group design

G1 is the group that experienced experimental treatment (i.e., cooperative approach). While G2 (i.e., control group) has not experienced any treatment, that is, the group was taught using the traditional approach. R indicates that the students were randomly assigned to the treatment and control group. Y11 and Y21 are pre-test scores or initial measurements on the dependent variable. The X inline 1 of Figure 2 shows that the treatment was given to the experimental group, G1. Inline 2 of Figure 2, the absence of X shows that no treatment was given to the control group, G2. The post-test scores (i.e., final measurements) are Y12 and Y22.

In the second phase, a face-to-face interview was conducted to collect the qualitative data in order to explain why the cooperative approach tested in the quantitative aspect (i.e., first phase) affects the achievement of financial accounting students. The mixed-

method design allows the study to look at the general picture of the problem, that is, effect cooperative approach on achievement of financial accounting students (i.e., quantitative finding) while, the interviews (i.e., qualitative finding) will elaborate the statistical output obtained in the quantitative aspect by exploring the students' views extensively (Creswell, 2003). The published studies of cooperative approach (see, for example, Adeyemi, 2008; Salako, Eze, & Adu, 2013; Majoka & Khan, 2011) adopted a quantitative method (i. e. experimental research design) in their studies. While the present study uses both experiment and interviews to have a more in-depth insight into the problem under investigation

3.3 Instrument

Achievement Test was used as a data collection instrument in this study. It consists of 40 multiple choice questions adapted from past examination questions of the West African Examination Council's (WAEC). The examination questions of WAEC are valid and reliable because the questions are constructed by the experts, usually with analysis, revision, and try-out (Osadebe, 2014). Prior studies (see Ogologo & Wagbara, 2013, for example) also adapted WAEC examination in measuring the achievement of students of secondary school in chemistry. Before conducting the main study, the pilot test was conducted on the students that are not included in the study sample, but they are part of the population. The validity and reliability tests were also performed on the instrument. For content validity, the measurement instrument was assessed by two experts. Baykul (2000) argued that the content validity of the measurement instrument (i.e., test) is established by expert judgment. The two Heads of Department (HODs) of accounting in secondary school were asked to assess the measurement instrument for face validity. All the feedback received from the validators was taken into account to adjust the measurement instrument for final use. The reliability of the measurement instrument was determined using Cronbach alpha. Hair et al. (2010) suggested that the coefficient value of Cronbach alpha of more than .70 is considered adequate and acceptable. In the present study, the coefficient value of the reliability is .73. This suggested that the instrument is reliable.

3.4 Procedure

Twelve (12) teachers of financial accounting with five-seven years of working experience and having the same qualification were randomly selected to execute the experiment in all the selected schools. They were given the orientation of one week on how to give the treatment. After orientation, they were randomly assigned to the sample schools to carry out the treatment. The treatment was given for four weeks period (i.e., 25th July to 19th August) and was given only to the experimental group using a cooperative approach as their teaching approach. While the control group was taught using the traditional method.

After the students were assigned to their various groups, the first test (i.e., pre-test) was given to them (both treatment and control group) by the teachers assigned to the respective groups to measure the entry behaviour before the treatment. After that, the experimental group's teachers exposed their students to the cooperative approach, while the control group teachers exposed their students to the traditional method (i.e., conventional approach). All experimental and control group activities were simultaneously carried out. After the experiment of four weeks, the second test (i.e., post-test) was given to both experimental and control groups students to ascertain the effect of the treatment. Both tests were collected by the teachers (i.e., research assistants) and passed to the researchers immediately. The tests were marked and graded by the researcher.

3.5 Data Analysis

Independent t-test and ANCOVA were used in analysing the quantitative data collected for the study. The T-Test is used for comparing two different groups (Tabachnick & Fidell, 2007). In the present study, a t-test was conducted to determine whether there is a significant difference in the financial accounting achievement of students in cooperative and conventional approaches before exposing them to the treatment. Besides, ANCOVA was used to examine a significant difference in the financial accounting achievement of students who were taught using cooperative and conventional approaches. This is because ANCOVA is an appropriate statistical tool for pretest-posttest control group design (Sambo, 2005).

The NVivo 10 (i.e., qualitative research software) was used in analysing the data collected from the participants through interviews. The NVivo was used to facilitate the process of sorting, storing, analysis, and preparing for a graphical representation of the data. The analysis process was sped up by software and made it easier for the study to find different relationships and enabled diagrams of emerging findings and preparation of the research reports. Then, the quantitative and qualitative results were integrated into the discussion (Ivankova, Creswell, & Stick, 2006).

4. FINDINGS

The result document in Table 1 suggests that statistically, there was no significant difference in the achievement of cooperative approach students (M = 25.15, SD = 4.008) and students of conventional approach (M =24.18, SD = 4.645), t (118) = 1.221, p = .255. Therefore, hypothesis 1 is supported. The finding shows that the students of cooperative and conventional approaches were equal in their achievements at the pretest stage because they are from the same population.

Table 1. Independent Samples t-test for Pre-test Scores between the two Groups

Levene's Test for Equality of Variances								
Variable	**Groups N**	**N**	**F**	**Sig.**	**T**	**Mean**	**SD**	**Sig. (2tailed)**
Pre-test	Cooperative	60	.978	.325	1.221	25.15	4.008	.255
	Control group	60				24.18	4.645	

Before performing ANCOVA, all the necessary assumptions such as normality, regression slopes homogeneity, variance homogeneity were checked, and all were satisfied. Skewness and kurtosis were used in assessing the normality. If the data is normal (i.e., normally distributed), skewness and kurtosis values should be close to zero (Tabachnick & Fidell, 2007). In this study, all the values of skewness and kurtosis in all the two groups are less than ±1 (see Appendix 1), indicated that the normality assumption was fulfilled. For the variance homogeneity assumption, the test of equality of variance revealed a similar variance among the two groups (i.e., Sig value is .116). Therefore, the assumption of variance homogeneity was not violated (see Appendix 1). Lastly, the regression slopes homogeneity was checked to examine the interaction effect (i.e., interaction between the treatment and covariate). The result revealed .156 as significant value. The value is above the cut-off of .05, and this suggested no interaction effect exists (see Appendix 1).

After satisfied all the underlined assumptions of ANCOVA, the principal analysis (i.e., ANCOVA) was conducted to compare the achievement of students who were taught financial accounting using a cooperative and conventional approach. The documented result in Table 4.3 reveals a statistically significant difference in the achievement of financial accounting students who were taught using a cooperative approach and those

exposed to conventional approach: F (1,117) = 1526.442, *p* = .000. Hypothesis 2 is, therefore, not supported. Based on the guideline given by Cohen 1988, the effect size is large (.929). Furthermore, the descriptive statistics documented in Table 4.2 indicate that the achievement means a score of students taught using a cooperative approach (M = 67.87, SD = 3.239) was better than that of their counterparts in the conventional approach (M = 48.13, SD = 4.264).

Table 2. Descriptive Statistics

Group	Mean	Std. Deviation	N
Cooperative	67.87	3.239	60
Control group	48.13	4.264	60
Total	58.00	10.601	120

Table 3. Analysis of Covariance of Cooperative Approach and Conventional Approach Students

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Sq
Corrected Model	12859.105[a]	2	6429.552	1460.992	.000	.962
Intercept	5494.048	1	5494.048	1248.417	.000	.914
Pre-test	1176.972	1	1176.972	267.444	.000	.696
Group	***6717.583***	***1***	***6717.583***	***1526.442***	***.000***	***.929***
Error	514.895	117	4.401			
Total	417054.000	120				
Corrected Total	13374.000	119				

In the present study, the interview was the second phase of data collection. The interview was conducted with the aims of getting the reflections of students on the effectiveness of the cooperative approach on their financial accounting achievement. Because in sequential explanatory mixed-method design, the qualitative aspect elaborates on the findings of the quantitative aspect by exploring the views of participants (Creswell, 2003). Hence, the students (i.e., participants) were asked to express their views on how the cooperative approach improved their financial accounting achievement. The following questions were asked:

(a) Do you enjoy the cooperative learning approach? Why?
(b) Do you feel that you can learn better in financial accounting when working in a small learning group (cooperative learning group)? Why?
(c) In your opinion, as a financial accounting student of senior secondary school, tell me what you like in a cooperative learning approach?

The questions were addressed by analysing the responses of the interview, which led to the emergence of the following sub-themes:

I) Enjoy cooperative learning (CL)
II) Achievement in financial accounting (FA)
III) Likeness in CL

Figure 3 indicates the relationship between the main themes: the Cooperative approach effect and its sub-themes (Enjoy CL, Achievement in FA, and Likeness in CL) generated from the responses of participants with their dimensions. These are participant's views on whether they enjoy financial accounting learning using a cooperative approach, their achievement in financial accounting when exposed to a cooperative approach, and what they like in cooperative learning activities. The responses from the interview show 3 participants opined that they enjoy a cooperative approach because of positive

interdependence. On the other hand, 2 participants stated that they enjoy a cooperative approach because of individual accountability.

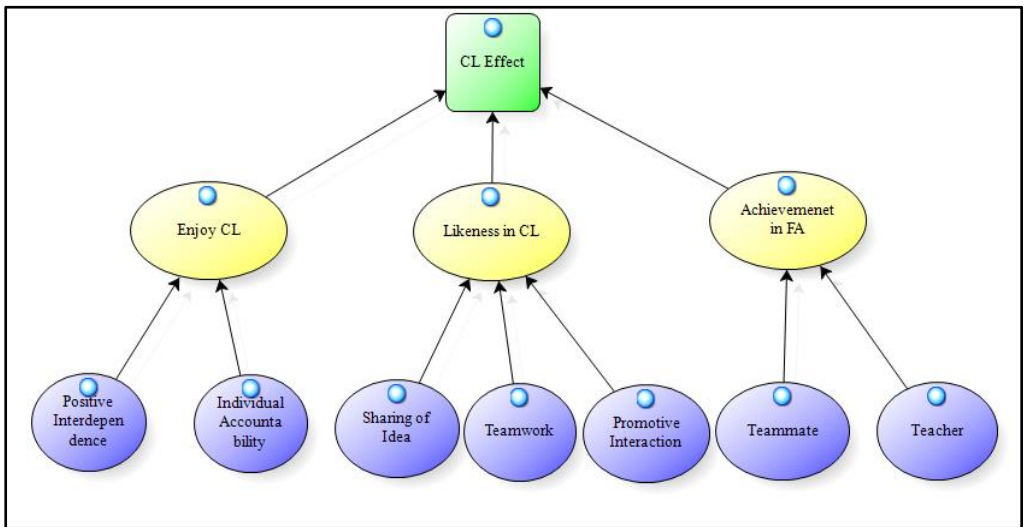

Figure 3. Model for Cooperative Learning Effect

Positive Interdependence: Some of the participants highlighted that they enjoyed a cooperative approach because they were working together as a team to share their ideas and ensure every one of them understands the lesson in order to achieve their personal and group targets. For instance, participant 1 stated, “of course, I enjoy it. In the cooperative approach, there is a group target, and we worked together with our teammate to achieve the target and ensure each group member understands the lesson” (Participant 1). In a similar vein, participant 2 opined that “Yes, I enjoy cooperative approach because in this learning style, group members learn from each other and we contribute our share towards our success and the success of our group” (Participant 2). Responding to the same issue, participant 3 expressed that, “Yes, because we are putting in the group to share our ideas with our group members and help one another in our learning" (Participant 3).

Individual Accountability: 2 participants emphasised that they enjoyed financial accounting learning using a cooperative approach because every group member is participating in the learning activities and contributes his/her share towards their group success. For example, participant 4 highlighted that “Yes, none of the group members is reluctant in cooperative approach, every one of us is putting his/her effort to see his/her success as well as the group success” (Participant 4). Sharing a similar opinion with the above assertion is participant 2 (Participant 2). The responses from the interview show that participants 1, 2, and 3 stated that what they like in cooperative learning activities is sharing of ideas, participants 1, 3, and 4 mentioned promotive interaction, while participant 2 again mentioned teamwork.

The sharing of ideas means students cooperate to connect their ideas and work together to improve the ideas of each other. Some of the participants highlighted that they like cooperative approach activities because they were given a chance to share their ideas in order to have a better understanding of their learning. For instance, participant 1 highlighted that, what I like much in a cooperative approach, we put up together our ideas to make sure our group is successful and all the members in the group are also successful

(Participant 1). In a similar vein, participant 2 expressed that we all give and listen to others' contributions in order to achieve our goal (Participant 2). Still participant 3 went further to explain, “It is enjoyable and exciting because we worked together as a group, share our ideas, support each other, and inspire each other to learn (Participant 3).

Promotive interaction: The group members encourage and facilitate the efforts of one another to complete a given task and achieve their common goal. Three participants mentioned that they like promotive interaction. The participants stated that I like the cooperative approach because I have a good working relationship with my group members, and we help one another to solve our problem together (Participant 1). In collaboration with Participant 1 assertion, participants 3 and 4 portrayed a similar opinion of their likeness to the cooperative approach as they work together as a group, supporting and inspiring the learning of one another.

Teamwork is the combined efforts of group members to achieve their common goal by managing and coordinating the activities of their groups. The combined efforts may be effective than individual effort if the group members trust one another, communicate accurately and clearly among themselves, and resolve conflicts among themselves (Johnson & Johnson, 1991). Participant 2 emphasised that she likes cooperative approach because each learning group is well-coordinated, and every member gave his/her contribution and also listened to others' contributions. Cooperative learning is teamwork activities, and there is proper condition among the group members towards achieving the group target. So, we all give and listen to another contribution in order to achieve our goal (Participant 2).

The perception and views of the participants regarding their achievement in financial accounting when they were exposed to a cooperative approach with two dimensions developed from the interviews are showing in Figure 3. These are (1) teammate and (2) teacher. Three participants opined that their performance in financial accounting was better when they were exposed to the cooperative approach because of their teammates. 1 The participant, on the other hand, attributes his performance in financial accounting to his teacher.

Teammate refers to the support and encouragement of efforts by the group members to ensure that every member of the group understands the learning material and all the given tasks in order to achieve their individual and joint goals. The interview responses indicated that most of the participants performed better in financial accounting when taught using a cooperative approach because the group members or teammate supports and encourages each other to see that everyone has achieved the learning objective. Participant 2, for instance, mentioned that I learned very well when working in small learning groups because even if I do not know the answer, my teammates help me out of that problem. Therefore, working in a group makes me feel that I can do better (Participant 2). Similarly, participant 3 went further to explain that I can learn better in financial accounting when taught using a cooperative approach because our teacher teaches us the lesson, and he asked us to work in a small group of mixed learning ability to make sure that everyone in the group understands the lesson. So, we worked hard with our group members to understand teachers’ lessons and undertake our given task (Participant 3). In the same vein, participant 4 highlighted that, Yes, I could learn better using cooperative approach because anything that I cannot achieve alone, my group members help me to achieve it because in the cooperative approach we assist and support each other to achieve our learning objective (Participant 4).

The teacher refers to the support, encouragement, and motivation given by the teachers to students during their cooperative approach activities. In the cooperative instructional group, one participant pointed out that our teacher motivates and encourages them to work hard and learn together as a group irrespective of their difference in terms of gender and background in order to understand their learning material and perform a given task to achieve their learning objective. A participant mentioned that: Of course, I can do better when taught using a cooperative approach because our teacher encourages us to work hard and learn together as a group regardless of our gender difference, background and put all our heads together to see that we understand our learning materials (Participant 1).

5. DISCUSSION

It has been suggested by the findings of the present study that before the treatment, the achievement of students who were assigned to the cooperative and conventional approach did not significantly differ. Similar findings were reported in the studies of Hijazi and Al-Natour (2012); Gokkurt et al. (2012); Zakaria et al. (2010).

Nevertheless, after the treatment was given to the experiment group, the achievement of students who were taught financial accounting using a cooperative approach was significantly better than that of their counterparts who were taught financial accounting using a conventional approach. The finding suggests that a cooperative approach that allows the sharing of ideas among the students, working together in solving problems, explained and deliberated their viewpoints was proved to be the most appropriate and effective method for teaching secondary school students financial accounting. Therefore, the consistent massive and failure recorded among financial accounting students of secondary school, particularly in the final examination, could be addressed using the cooperative approach. This finding is agreeing with the studies conducted in mathematics by Hossain and Tirmizi (2013); Gambari, Shittu, and Taiwo (2013); Gokkurt et al. (2012); Zakaria et al. (2010). The finding is also in line with the studies conducted in physics and social studies by Majoka et al. (2012); Salako et al. (2013); Adebayo and Judith (2014), Gambari and Yusuf (2014). However, the findings contradicted the study of Parveen et al. (2011) in social studies. The author argued that the cooperative approach was not found to be effective than the conventional approach in improving the achievement of social studies students.

Equally, the qualitative data analysis of suggested that the participants believed that cooperative approach influenced their achievement in financial accounting because they are working together as a team to share their ideas with each other, support and encourage one another to see that everyone has achieved the learning objective and every group member is participating in the learning activities and contributed his/her share towards their group success. Also, their teachers motivated and encouraged them to work hard and learn together as a group irrespective of their difference in terms of gender and background in order to understand their learning material and performed their given tasks to achieve their learning objective. The above opinions are in line with the argument made by Johnson and Johnson (1991) that cooperative effort of students may be effective than individualistic effort if the learners believed that they sink and swim together.

6. CONCLUSION

The current study focuses on the effect of the instructional approach on the achievement of secondary school students in financial accounting in Gombe state, Nigeria. The design adopted in the present study is a sequential explanatory mixed-method design.

Achievement Test was used as a data collection instrument. 120 students of 6 secondary schools participated in the study. Four students were used to interview in the study.

The study proved that the achievement of students who were taught financial accounting using a cooperative approach was significantly better than that of their counterparts who were taught financial accounting using the conventional approach. This is because the cooperative approach allows the sharing of ideas among the students, worked together in solving problems, explained, and deliberated their viewpoints. Therefore, the present study recommended that the curriculum planners and teachers in secondary schools should be encouraged by the government to adopt the cooperative approach in teaching financial accounting to students in order to improve their achievement in the subject.

Nonetheless, only level II financial accounting students of secondary schools were used in the study. Therefore, this may not allow the generalisation of the study's findings to other levels of financial accounting students in secondary schools. So, this study suggested that future studies should focus on other levels of financial accounting students in secondary schools.

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APPENDIX

Test for Normality

Group	Variable	Skewness		Kurtosis	
		Statistic	SE	Statistic	SE
Cooperative	Pre-test	.380	.309	.008	.608
	Post-test	.099	.309	-.223	.608
Control Group	Pre-test	.414	.309	-.167	.608
	Post-test	.062	.309	-.054	.608

Levene's Test of Equality of Error Variances[a]

F	df1	df2	Sig.
2.512	1	118	.116

Test for Homogeneity of Regression Slopes

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	12868.019[a]	3	4289.340	983.365	.000
Intercept	5457.407	1	5457.407	1251.153	.000
Group	335.031	1	335.031	76.809	.000
Pre-test	1163.998	1	1163.998	266.856	.000
Group * Pre-test	***8.914***	***1***	***8.914***	***2.044***	***.156***
Error	505.981	116	4.362		
Total	417054.000	120			
Corrected Total	13374.000	119			