Effect of Cooperative And Direct Teaching Methods On Students Academic Performance In Accounting Education In Federal Colleges Of Education In North-East Nigeria

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ABSTRACT
This study the establish the Effect of cooperative and direct teaching methods on Students Performance in Accounting in Federal Colleges of Education in North-East, Nigeria. Quasi experimental design was used for the study. Three null hypotheses were formulated to test the objectives raised. The population of the students in Federal Colleges of Education in North-East, Nigeria offering Accounting option stood at 482 and the sample size was 242. Intact class were employed. Descriptive statistics involving mean score were used with T-statistic to test the hypotheses at 0.05 level of significance. The findings revealed among others that there was significant difference in the academic performance of students taught accounting using Direct Teaching Method and those taught using Cooperative method in Federal Colleges of Education in North-East, Nigeria; Null hypotheses one and two were retained. The study established that Cooperative Teaching Method had more effect on academic performance of students than direct teaching method. The study recommended among others, that lecturers should be properly trained by the authorities of Colleges of Education in order to improve advancement in the level of education and encourage students on the need to develop interest in Financial Accounting.

Keywords: Cooperative and Direct Teaching Methods; Students Academic Performance; Accounting Education; North East; Nigeria

INTRODUCTION
Cooperative Teaching Method has been around for a very long time—long before John Dewey and progressive education extolled its virtues in the early 20th century. Documented more than 3000 years ago, students of the Talmud paired up to engage in lively debates. Later, in the United States, the practice of group learning was a natural extension of the one-room schoolhouse. It was a prominent component of John Dewey's experiential classroom and was present in most American classrooms until the early 1940s, at which point it fell out of favor for about 30 years. The introduction of cooperative teaching method stated, after finding that group work was more effective and Direct Teaching Method was first introduced in France and Germany and later was recognized officially by the governments of Germany, France and Belgium. An International congress of Modern Language Teachers was held in 1898 in Vienna and decided that the direct method should be used in all elementary teaching of foreign languages (Rivers, 1964). In Britain a compromise policy of adopting the direct method emphasis on the spoken language and some other techniques recommended in the early 20th century.

Tweed (2004) pointed that Direct Teaching is the most effective teaching method on the report conducted that the variety of teaching method includes Direct Teaching as well as Inquiry- based
Teaching method are what is best for students. Direct Teaching Method is an effective teaching method that allows a more flexible approach that should be use as a limited method not as a primary method of teaching. Direct Teaching efficient in quantity, quality, and overall productivity when compared to working alone. However, it was in 1937 when researchers May and Doob found that people who cooperate and work together to achieve shared goals were more successful in attaining outcomes than those who strived independently to complete the same goals. Furthermore, they found that independent achievers had a greater likelihood of displaying competitive behaviors (Jacob, 2006). The structural approach to cooperative teaching method is based on the creation, analysis and systematic application of situation, structures of organizing social interaction in the class. It is the impact of two teaching methods, to determine their effectiveness on student academic performance in accounting. Kagan, (2005) cited that Cooperative Teaching Method is an instructional method in which group of students work together on a common task, the teaching method is an excellent way which allow students to think critically without relying on lecturers for answers.

Student academic performance in North-East Nigeria is monitored closely so as to identify early any student whose performance is likely to lead to academic failure. The Institution works with individual students to provide academic guidance so as to maximize the chances of all students’ success. Students performance is a complex series of actions that ingrate skills and knowledge to produce valuable result (Klmet,(2005) observed that students’ academic performance comprises both behavioral and an outcome of aspect, it is a multidimensional and dynamic concept.

Accounting has been regarded as a systematic process of identifying, recording, measuring, classifying, verifying, summarizing, interpreting and communicating financial information. It is a core course in business education programme in Nigeria. The most important questions that currently face accounting lecturers are (i) what are the problems of accounting education and (ii) what strategies could be used to enhance students’ performance? From scholars’ perspective, one of the strategies that will help to improve students’ performance in accounting is teaching method adopted by the teacher. Teaching method according to Omotosho (1991) is a strategy or plan that outlines the approach that teachers intend to take in order to achieve the desirable objectives. It involves the ways teachers organized and use techniques of subject matter, teaching tools and teaching materials to meet teaching objectives. . It is on this back ground that the researcher is conducting a study on effect of direct and cooperative teaching methods on students’ performance in Accounting in Colleges of Education in North - East Nigeria as a basis for providing recommendation towards enhancing students’ performance in Accounting.

Statement of the Problem

Students’ academic performances in Accounting in Federal College of Education in North-East Nigeria have been observed by the researcher to be low. According to Princie, (2005) this trend has made the researchers to investigate the reasons for the large number of failures in accounting as well as low academic performance by accounting students as observed from the interaction with students. Accounting is very important to our modern society. According to (Albert,2001) it is the career for men and women who at the start had their eyes set on top positions in industry, management, government, educational career and general business. Accounting is a basic need of every business education student. In the business world, Accounting is one discipline of study that all people, regardless of job position, should have some knowledge of Accounting education is important to every field of specialization. Secretaries must use accounting skills to manage the company cheque book and Auditors have to study financial statements to evaluate the accuracy and integrity of the business. In addition executives need to judge the success of their business using Accounting statements from the past and present However, despite the importance of Accounting to individual and nation at large, it is a pity that significant numbers of students cannot cope with the technicalities in Accounting. This has affected student’s interest in Accounting Education, especially in Federal Colleges of Education in North- East Nigeria. The poor performance has been a problem resulting in massive students’ failure in F.C.E (T) Gombe F.C.E Yola and that of F.C.E. (T) Potiskum in Accounting education have been poor for three conservative academic session for example, in 2010/2011 the failure rate was 33% and in 2011/2012 the failure rate was 28%. While in 2012/2013 the failure rate was 32%. The statements above have been summarized as follows. In 2011/2012 session 36% had credit, 36% had pass and 28% had failed. In 2012/2013 31% had credit, 37% had passed and 32% failed.
The researchers’ interaction with the lecturers revealed that lack of adequate facilities and conducive learning environment contributed to the poor performance of students. From the students’ side they kept saying method used by lecturers is where they had problem with poor academic performance. It is in the light of this, that the researcher conducted a research work on the effect of direct and cooperative teaching methods on students ‘performance in Accounting in Federal Colleges of Education in North - East, Nigeria.

**Purpose of the Study**

The major objective of the study was to know the effect of direct and cooperative teaching methods on students’ performance in accounting in Federal Colleges of Education in North- East, Nigeria. The specific objectives were to:

1. determine the difference in academic performance of students taught accounting using cooperative method of teaching and those using direct method of teaching in Federal Colleges of Education in North- East Nigeria.
2. compare the difference in the academic performance of male and female students taught accounting using direct teaching method and those taught using cooperative teaching in Federal Colleges of Education in North- East, Nigeria.

**Research Questions**

The study was carried out to provide answers to the following research questions:

1. What is the mean effect of Direct Teaching Method and Cooperative Teaching Method on students’ performance in Accounting in Federal Colleges of Education in North- East, Nigeria?
2. What is the difference in the academic performance of male and female students taught Accounting using Direct and Cooperative Teaching Method in Federal Colleges of Education in North- East, Nigeria?

**Research Hypotheses**

The following three (3) null hypotheses have been formulated to guide the study:

1. There is no significant difference in the academic performance of students taught Accounting using direct teaching method and those taught using cooperative teaching method in Federal Colleges of Education in North East, Nigeria.
2. There is no significant difference in the academic performance of male and that of female students taught Accounting using Direct Teaching Method in Federal Colleges of Education in North East, Nigeria.

**Theoretical Framework**

This study adapts the constructivist view of learning by Kolb, Boyatzis and Mainemelis, (2000) who opined that students build their perception on learning the reason for adopting these theory, because it dealt with students perception when teaching and learning process, this perception greatly affects their performances and achievement in schools based on their previous experiences and characteristics. Cheek, (1992) supported this view when he said learners actively take knowledge, connect it to previously assimilated knowledge and make it theirs by constructing their own interpretation. Learning is the act, process, or experience of gaining knowledge or skill. It refers to all knowledge or skill gained through schooling. Learning refers to those behavioral modifications especially through experience or conditioning. According to Illeris, (2004) learning is the process that brings together cognitive, emotional.

The learning theories are framework describing how information absorbed processed and retained during learning. Cognitive theory influences as well as prior experience all play a part in how understanding and world view is acquired or changed and knowledge, skills retained and explains why the brains is the most incredible network of information processing. Cognitive theory believe that the definition of learning as a change in behavior is to narrow and prefer to study the learner rather than their environment and in particular complexities of human memory, those who advocate, cognitive describe the information processing model to learning and distinguish the features of multistore of learning, its gives some ideas related to cognitive learning theory covered. The theory is justifying one position over another and select theories that are more viable leads to better theory. It is also educational tutoring systems, Instructional hypermedia design, the justification for this type of system lies in the fact that the learning is a cognitive task and this is in turn to imply theory. While
constructivism theories believe that a learner ability to learn relies to a large extent on what he already knows and understands and the acquisition of knowledge should be an individually tailored process of construction. While transformative learning theory focuses upon the necessary change that is required in learners perceptions and world view. Environment influences and provide experiences for acquiring, enhancing, or making changes in one's knowledge, skills, values, and world view. It refers to the way and manner in which information is absorbed, processed, and retained. Learning theories are elaborate hypotheses that describe how exactly this procedure occurs. Learning theory is a broad term that includes multiple theories of behavior that are based on the learning process. Kolb, Boyatzis and Mainemelis (2000) identified three main philosophical frameworks under which learning theories fall: behaviorism, cognitivism, and constructivism. Similarly Merriam, (2007) highlighted four approaches or orientations to learning: Behaviourist, Cognitivist, Humanist, and Social/Situational. These approaches involve contrasting ideas as to the purpose and process of learning and education - and the role that educators may take.

The core objective of education and training is focus on knowledge construction. Curriculum instruction ought to emphasize context and promotes skill development. Therefore educational experiences should be geared towards the individual learner and identity focuses on development of the individual as a member of a community or profession. Teaching and learning activities should be constructed with the learner at the centre. This is in line with constructivism theory of learning that views learning as a process in which the learner actively constructs or builds new ideas or concepts (Kolb, Boyatzis and Mainemelis, 2000).

Behaviorism theory focused only on the objectively observable aspects of learning. According to Kolb, Boyatzis and Mainemelis (2000) John Watson 1878-1959 coined the term "behaviorism" which is critical of Wundt's emphasis on internal states. They anchored that first, learning is manifested by a change in behavior, secondly that environment shapes behavior and thirdly, the principles of contiguity - how close in time two events must be for a bond to be formed and reinforced as a means of increasing the likelihood that an event will be repeated are central to explaining the learning process. According to behaviorist theory, learning depends on two conditions: Classical conditioning, where the behavior becomes a reflex response to stimulus as in the case of Pavlov's Dogs and Operant conditioning where there is reinforcement of the behavior by a reward or a punishment (Kolb, Boyatzis and Mainemelis 2000).

**Concept of Business Education**

The term business education has been variously defined by different authorities. The term encompasses two main philosophical meanings – education about business and education for business. Osuala, (2004) saw Business education as a programme of instruction which consists of two parts (1) Office education, a vocational programme of office careers through initial, refresher and upgrading education and (2) General business education a programme, to provide students with information and competences which are needed by all in managing personal business affairs and in using the services of business. Ibrahim, (2008) considered business education as education that encompasses knowledge, attitudes and skills needed by all citizens in order to effectively manage their personal resources and participate in the economic system. Business Education refers to all deliberate intent of teachers to inform students about economics and business concepts and skills that will be used in later life. It aims at providing students with economic and business concepts for understanding and analyzing the world in which they live to be able to make intelligent and wise decisions on goods and services both as consumers and producers (Aliyu, 2006) Similarly Njoku (2006) perceived business education as educational programmes that equip an individual with functional and suitable skills. One of the five goals of education in Nigeria is that education shall build a land of full bright opportunities for all citizens. Empower people with desirable skills, knowledge and value to perform specific functions so as to become self reliant. Also:-

(a) Help you appreciate the world around you and contribute maximally to the social and economic development of the nation.

(b) Empower you in such a way that you will develop your intellectual capability that would help you to make informed decisions in all sphere of life.

(c) Help you become a judicious spender and develop proper values for the achievement of healthy living and growth of the nation.
(d) Understand the political framework of a nation so that you can contribute to national economy and development of your country (Njoku, 2006).

According to the Minimum Standard for Nigeria Colleges of Education (2008) (NCCE) the following are the objectives of the Nigeria Certificate in Education Business Education programme:

(a) Produce well qualified and competent NCE graduates in business subjects who will be able to teach in our secondary schools and related educational institutions.
(b) Produce NCE business teachers who will be able to inculcate the vocational aspects of business education into society.
(c) Produce NCE business teachers who will be involved in the much revolution of vocational development right from primary and secondary schools.
(d) Equip students with necessary competencies so as to qualify for post NCE programmers in business education.
(e) Equip graduates with skills that will enable them to engage in a life of work and self-employment.

Udoh (2010) defined business education as primarily education for skills acquisition.

**Concept of Accounting**

Accounting concept refers to the basic assumptions rules and principles which work as the basis of recording of business transactions and preparing accounts, the main objective is to maintain uniformity and consistency in accounting records. These concepts constitute the very basis of accounting. All the concepts have been developed over the years from experience and thus they are universally accepted rule Udoh, (2004) opined that in preparing final accounts there are a number of key accounting concepts that have been discussed in the following sections: Business entity concept, Money measurement concept, Going concern concept, Accounting period concept, Accounting cost concept, Duality aspect concept, Realizations concept, Accrual concept and matching concept

**Business entity concept**

This concept assumes that, for accounting purposes, the business enterprise and its owners are two separate independent entities. Thus, the business and personal transactions of its owner are separate. For example, when the owner invests money in the business, it is recorded as liability of the business to the owner. Similarly, when the owner takes away from the business cash/goods for his/her personal use, it is not treated as business expense. Thus, the accounting records are made in the books of accounts from the point of view of the business unit and not the person owning the business. This concept is the very basis of accounting the following points were highlighted.

Duncan, (2001) highlighted that the idea here is that the financial transactions of one individual or a group of individuals must be kept separate from any unrelated financial transactions of those same individuals or group. The best example here concerns that of the sole trader or one man business: in this situation you may have the sole trader taking money by way of 'drawings': money for his own personal use. Despite it being his business and apparently his money, there are still two aspects to the transaction: the business is 'giving' money and the individual is 'receiving' money. So, the affairs of the individuals behind a business must be kept separate from the affairs of the business itself. Udoh (2004) opined that this concept explains that every account kept in respect of any organization is operated or prepared on the premise that business is a separate entity (person) quite distinct from the proprietor or proprietors who provided the initial capital.

Anil (2007) observed that this concept, the task of measuring income and wealth is undertaken by accounting, for an identifiable Unit or Entity: The unit or entity so identified is treated different and distinct from its owners or contributors. In law the distinction between owners and the business is drawn only in the case of joint stock companies but in accounting this distinction is made in the case of sole proprietor and partnership firm as well. For example, goods used from the stock of the business for business purposes are treated as business expenditure but similar goods used by the proprietor i.e. owner for his personal use are treated as his drawings. Such distinction between the owner and the business unit has helped accounting in reporting profitability more objectively and fairly. It has also led to the development of "responsibility accounting" which enables us to find out the profitability of even the different sub-units of the main business.

The following points highlight the significance of business entity concept:

1. This concept helps in ascertaining the profit of the business as only the business expenses and revenues are recorded and all the private and personal expenses are ignored.
2. This concept restraints accountant from recording of owner’s private/personal transactions.
3. It also facilitates the recording and reporting of business transactions from the business point of view
4. It is the very basis of accounting concepts, conventions and principles

**Accounting Period Concept**

All the transactions are recorded in the books of accounts on the assumption that profits on these transactions are to be ascertained for a specified period. This is known as accounting period concept. Thus, this concept requires that a balance sheet and profit and loss account should be prepared at regular intervals. This is necessary for different purposes like, calculation of profit, ascertaining financial position, tax computation etc. Further; this concept assumes that, indefinite life of business is divided into parts. These parts are known as Accounting Period. It may be of one year, six months, three months, one month, etc. But usually one year is taken alone accounting period which may be a calendar year or a financial year. However, Ani, (2007) highlighted that accounting practice believes in continuing entity concept i.e. life of the business is perpetual but still it has to report the results of the activity undertaken in specific period (normally one year). The accounting attempts to present the gains or losses earned or suffered by the business during the period under review or any other period depending upon the convenience of the business or as per the business practices in country concerned.

**Going Concern Concept**

This concept states that a business firm will continue to carry on its activities for an indefinite period of time. Simply stated, it means that every business entity has continuity of life. Thus, it will not be dissolved in the near future. This is an important assumption of accounting, as it provides a basis for showing the value of assets in the balance sheet. The following points highlight the significance of going concern concept; this concept is also known as the 'going concern' assumption. Duncan (2001) opined that this concept is the underlying assumption that any accountant makes when he prepares a set of accounts. This concept assumed that the business under consideration will remain in existence for the foreseeable future. Without this concept, accounts would have to be drawn up on the 'winding up' basis. That is, on what the business is likely to be worth if it is sold piecemeal at the date of the accounts. The winding up value would almost certainly be different from the going concern value shown. Such circumstances as the state of the market and the availability of finance are important considerations here.

**Implications of the 'Going Concern' Concept**

Now Master Accounting (2009) observed the following as the implication of Going Concern This concept has important implications for the valuation of assets and liabilities of the business. By applying the 'going concern' concept, accountants are able to report long-term assets in a Statement of Financial Position (balance sheet). If the assumption was not applied, the accountant would need to write these assets off as costs in the year of purchase. Applying the 'going concern' concept also allows accountants to properly allocate transactions which overlap two consecutive years (i.e. many credit transactions).

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**Dual Aspect Concept**

Dual aspect is the foundation or basic principle of accounting. It provides the very basis of recording business transactions in the books of accounts. This concept assumes that every transaction has a dual effect, i.e. it affects two accounts in their respective opposite sides.

Duncan (2001) highlighted that this is the very foundation of the universally applicable double entry book keeping system and it stems from the fact that every transaction has a double (or dual) effect on the position of a business as recorded in the accounts. For example, when an asset is bought, another asset cash (or bank) is also and simultaneously decreased OR a liability such as creditors is also and simultaneously increased. Similarly, when a sale is made the asset of stock is reduced as goods leave the business and the asset of cash is increased (or the asset of debtors is increased) as cash comes into the business (or a promise to pay is made and accepted). Every financial transaction behaves in this dual way.

**Review Studies**

This section reviewed related works that carried out by other researchers.

Tzu-Pu (2002) conducted a study on comparison of cooperative learning techniques and traditional teaching methods on students’ achievement in English Language in Colleges in Taiwan. In this study the researcher employed cooperative learning strategies. A sample of 100 students was used out of 400 populations and Ten (10) Teachers. Qualitative research design was adopted, four specific objectives and four research questions were formulated, and four Null hypotheses were tested using t-test statistical tools. The present study and the past both used cooperative teaching method. However, the two research studies differed in location as the past was conducted at Taiwan while the present was conducted in Nigeria; it also differed in population in which the past study used a sample of 100 out of 400 populations of students from the Colleges while the present used 242 students. The former used qualitative research design while the present used quasi experimental research design.

Wachanga&Mwangi (2004) conducted a study on the topic title: Effects of the cooperative class experiment teaching method on secondary school students’ chemistry achievement in Kenya’s Nakuru district. The population for the study was 500 and sample size was 200, quasi experimental studies were used. Five specific objectives and five research question were formulated; five Null hypotheses were tested using t-test statistical tools. A post-test was given soon after the treatment ended supervised by one of the researchers. ANOVA was used to estimate differences in the four means of post-test scores, while an F-test tested whether the differences were significant. For two means, a t-test was used because of its superior power in detecting differences between two means while ANCOVA was used to detect initial differences in the treatment and control groups. Findings revealed that education authorities in Kenya encourage chemistry teachers to used this method and teacher education institutions to make it part of their teacher training curriculum content. In this analysis of the data, no consideration has been given to students being nested within classrooms and schools. Since the sampling and treatment conditions occurred at the schools level the use of ANOVA and ANCOVA can be argued to be inappropriate. As a consequence the findings reported in this otherwise excellently conducted and well-reported study must be viewed with some caution because the errors used in testing for statistical significance are inappropriately estimated.

The present study and the past study both used quasi experimental design and both concern with the effects of teaching methods on students’ performance in science and technical subjects. However, the two research studies differed in location as the past was conducted in Kenya, while the present study was conducted in Nigeria. The past study was conducted on students’ performance in Science and technical subjects, while the present was conducted on students’ performance in Financial Accounting Federal Colleges of Education in North-East Nigeria. The past study used f-test while the present used t-test statistics.

Abdulhamid (2008) studied on Effects of two Teaching Methods on Students performance in Agricultural science in Secondary Schools in Bauchi metropolis. The population for the study was
500 and a sample size of 200 students was used by the researcher, quasi-experimental design was employed. Four specific objectives were raised to guide the study as well as four research questions and four null hypotheses were formulated and the scores obtained were analyzed by mean, standard deviation and t-test. The findings revealed that though both teaching methods had significant effects on students’ performance in agricultural science. The present study and the former both used quasi-experimental research design. However, the two research studies differed in population in which the past study used a population of 200 students from the two Secondary Schools while the present study used population of 842 students. The former study used four (4) specific objectives, four (4) research questions and four (4) Null hypotheses while the present used five (5) specific objectives, five (5) research questions and five Null hypotheses. The past study used Demonstration and Cooperative Teaching Methods while the present used Direct and Cooperative Teaching Methods. Adekoya and Olatoye (2011) conducted a study on the topic title: Effect of demonstration, Direct and lecture teaching methods on senior secondary school students’ achievement in an aspect of agricultural science. The population of 150 senior secondary schools (SS II) students from three secondary schools was used for the research; experimental design with a control group was used. Three (3) specific objectives, three (3) research questions and three (3) Null hypotheses were formulated to guide the study. The data were analyzed using ANCOVA and Scheffe post-hoc analysis. The findings revealed that both Teaching methods had significant effects on student’s performance. The present study and the past study both used experimental design in comparing the effects of teaching methods. Direct Teaching method was used in both the two researches. However, the two research studies differed in population in which the past study used a population of 150 senior secondary schools (SS II) students from three secondary schools, while the present study used population of 482 students. The past study used Demonstration, Direct and Lecture Teaching Methods while the present study used Direct and Cooperative teaching methods.

METHODOLOGY

Research Design

A quasi experimental design will be adopted for this study. The design enables the researcher to identify and stabilize effects of teaching methods on academic performance of students in Accounting in achieving a goal. Michele (2007) opined that a quasi-experimental design merely measures two or more variables rather than manipulating one or more independent variables and subsequently measuring the dependent variable.

Area of the study

The study will be conducted in Federal College of Education (Technical) Potiskum of Yobe State, Federal College of Education (Technical) Gombe, Gombe state and Federal College of Education Yola Adamawa State.

Population for the Study

The population for the study comprised of all N.C.E. III students specializing in Financial Accounting from the three Federal Colleges of Education in North-East, Nigeria. The population of the study as at 2016/2017 session stood at four hundred and eighty two students (482) and a sample size of (242) students made up of one hundred and forty (140) male and one hundred and two (102) female. The breakdown of the population is presented in Table 1

<table>
<thead>
<tr>
<th>S/N</th>
<th>Name of Schools</th>
<th>State</th>
<th>Location</th>
<th>N.C.E III Students (Accounting)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Male</td>
</tr>
<tr>
<td>1</td>
<td>F. C. E.</td>
<td>Gombe</td>
<td>Gombe</td>
<td>120</td>
</tr>
<tr>
<td>2</td>
<td>F. C. E.</td>
<td>Yobe</td>
<td>Potiskum</td>
<td>100</td>
</tr>
<tr>
<td>3</td>
<td>F.C.E</td>
<td>Yola</td>
<td>Yola</td>
<td>84</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Examination and Record Office of Each Department (2016/2017.)

Sample and Sampling Technique

Researcher used multi stage sampling technique comprising of purposive and random sampling to select among the three Federal Colleges of Education in north-east, Nigeria. The researcher selected
two Federal Colleges of Education in North-east Nigeria. These are FCE (Technical) Potiskum and FCE (Technical) Gombe among the FCE located in north-east Nigeria. Sample size of the study consist of representatives of N.C.E. III Accounting students in Federal Colleges of Education in North- East, Nigeria. The experiment group consist of (242) students in supports of this, Paul (2006) who stated that a sample size of 242 from population of 482.will enable the researchers get reasonable representation for the study and avoid interaction between subjects that will likely affect the outcome of the study, the researcher used the two methods in the institutions. To avoid bias in the selection of method to be used in institution, the researchers indicate (C.T. and D.T.) on separate pieces papers, rolled and put inside a hollow container. The researchers shook the container and placed on table, to select by the students from the group. The methods selected were used for the groups in the institutions. The grouping were done by use of C (Cooperative) and D (Direct) written on pieces of papers, squeezed and thoroughly mixed for students to pick. Those who picked C were grouped under Cooperative teaching method while those who picked D were grouped under Direct Teaching Method while those who pick D and C in FCE Potiskum were in experimental group A, those who don’t pick were grouped under control group B. While students from FCE Gombe were grouped under experimental group C and the control group was D.

**Instrument for Data Collection**

The main instrument for collecting data for this research was Financial Accounting Achievement Test. (FAAT) The instruments were adopted from Frank Woods Essential Financial Accounting 4th edition 2012.The instruments were designed by the researcher in form of pre-test and post-test questions with closed and open ended questions.

The open ended questions contained Company Final Accounts requiring the respondents to display their practical skills of preparation of final account of a company (with adjustment ) and balance sheet, The test will last for 90 minutes, the total score for this test will be 60 marks. The closed ended questions were objective in nature requiring the respondents to choose from given options A-D. The instrument contained forty (40) questions to be completed within 45minutes. The total score for test will be 40%.

**Validity of the Instrument**

The instrument designed for data collection was subjected to both face and content validity. Face validity refers to the relevance of the items to what is being measured. That is to what extend the items measure what they are expected to measure. On the other hand, content validity refers to whether the instrument actually measures what it was meant to measure (Daudo 2012).

For the purpose of this study, the initial draft of the instrument was validated by three Experts in the area of Vocational and Technical Education not below the rank of senior lecturer in the College of Education or University. The corrections and suggestions were incorporated in the construction of the final copy of the instrument. The College of Education are Federal College of (Technical) Potiskum, Federal college of education Gombe, Abubakar Tafawa Balewa University Bauchi.

**Reliability of the Instrument**

In order to determine the reliability of the instrument for data collection, test-re-test methods was conducted at Umar Suleiman College of Education, Gashua Yobe State. As a pilot study with 40 students. Scripts were collected and marked and coded into Statistical Package for the Social Sciences (SPSS 28 version). The researchers used Pearson Product Movement Correlation to test the reliability of the instrument. The result of the test is expected to give reliability co-efficient of not less than 0.68. This reliability co-efficient indicated that the instrument were reliable and internally consistent. According to Uzosike (2008), a reliable co-efficient of this value implies that the instrument is internally consistent and valid for studies of this nature.

**Method of Data Collection**

The researchers seek approval by the host Federal College of Education in North-Eastern Nigeria in order to allow the researchers to have access to the information needed for the study. Data collection was carried out with the help of research assistance. The researchers sought permission from the College authority of those institutions in order to conduct experimental research. The information collected was used. The experiment took 10 weeks.

First and second weeks: The researchers conducted pre-test. As the test was administered to all the (242) students who were selected to be in the experimental control group the scripts were marked the respondents in the experimental group were grouped into two groups namely: Direct and Cooperative
Teaching methods. The researchers administered treatment to the experimental groups with the appropriate use of lesson plans and the researchers served as the teacher.

Third and fourth week: The researchers took group D (Direct) through the preparation of Trading Account of a company using Direct Teaching Method. In another lesson group C (Cooperative) were taken through the preparation of trading account of a Company using Cooperative Method. That is, the two groups were given treatment simultaneously.

Fifth and six weeks: The researchers took the two groups using procedure in third and fourth weeks to teach profit and loss account of a company...

Seven and Eight weeks: The researchers took the two grouped using the same procedure to teach balance sheet of a company.

Nine and Ten weeks: The researchers administered post-test to experimental groups and marked the scripts the items were scores for data analysis.

**Method Data Analysis**

All the answers to the Financial Accounting Achievement Test (FAAT) were coded in to statistical analysis. The data obtained by the researcher from the field were tested statistically; using the Statistical Package Social Sciences (SPSS 28 version) was employed for analyzing the data. Mean score was used to answer the research questions, t-test statistic and regression analysis were used To test the three null hypotheses stated for the study were tested at 0.05 level of significance the mean score decision was 50.0.

### RESULTS AND DISCUSSION

**Answer to Research Questions**

<table>
<thead>
<tr>
<th>Research Question 1–2</th>
<th>Mean</th>
<th>N</th>
<th>Std Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 COOPERATIVE MET</td>
<td>67.4314</td>
<td>102</td>
<td>11.27031</td>
<td>1.11593</td>
</tr>
<tr>
<td>DIRECTMET</td>
<td>51.9804</td>
<td>140</td>
<td>8.17383</td>
<td>.80933</td>
</tr>
<tr>
<td>Pair 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 MALECOOPERATIVE-</td>
<td>70.6200</td>
<td>90</td>
<td>9.64236</td>
<td>1.36364</td>
</tr>
<tr>
<td>FEMALE direct</td>
<td>50.8400</td>
<td>50</td>
<td>12.68330</td>
<td>1.11148</td>
</tr>
<tr>
<td>Pair 3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 COOPERATIVE MET</td>
<td>66.8250</td>
<td>62</td>
<td>6.16187</td>
<td>2.00541</td>
</tr>
<tr>
<td>DIRECTMET</td>
<td>48.0750</td>
<td>40</td>
<td>6.16187</td>
<td>.97428</td>
</tr>
</tbody>
</table>

Table 4.2.1 revealed that the mean score of direct teaching method on students’ performance in accounting in Colleges of Education in North-East Nigeria shows that students who were taught accounting using cooperative teaching method had a mean score of 67.43 with a standard deviation of 11.27. While those who were taught using direct teaching method obtained a mean score of 51.98 with a standard deviation of 8.17 which signifies that there are difference in students’ performance based on the teaching method adopted. The summary indicates that male students taught using cooperative teaching method had a better performance and experiment over their male counterpart who were taught using direct teaching method, cooperative is more effective and efficient in term of improving student academic performance North’ East Nigeria.
Hypothesis 1–2

<table>
<thead>
<tr>
<th>Paired Deviation</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Std. Error Mean</th>
<th>95% Confidence / Lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 COOPERATIVE MET DIRECTMET</td>
<td>15.45098</td>
<td>12.91452</td>
<td>1.27873</td>
<td>12.91433</td>
</tr>
<tr>
<td>Pair 2 MALECOOPERATIVE FEMALECOOPERATIVE COOPERATIVE</td>
<td>19.78000</td>
<td>11.77734</td>
<td>1.66557</td>
<td>16.43292</td>
</tr>
<tr>
<td>Pair 3 MET DIRECTMET</td>
<td>18.75000</td>
<td>14.54392</td>
<td>2.29960</td>
<td>14.096863</td>
</tr>
</tbody>
</table>

Hypothesis 1–3

<table>
<thead>
<tr>
<th>Paired 95% confidence upper</th>
<th>t</th>
<th>Df</th>
<th>Sig.(2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1 COOPERATIVE MET DIRECTMET</td>
<td>17.98763</td>
<td>12.083</td>
<td>101</td>
</tr>
<tr>
<td>Pair 2 MALECOOPERATIVE FEMALECOOPERATIVE COOPERATIVE</td>
<td>23.12708</td>
<td>11.876</td>
<td>49</td>
</tr>
<tr>
<td>Pair 3 MET DIRECTMET</td>
<td>23.40137</td>
<td>8.154</td>
<td>39</td>
</tr>
</tbody>
</table>

Source: Field study 2018

Table showed the difference in the performance of male and female students in accounting using cooperative method indicate that male students earned higher mean score of 23 against female student with 19 respectively. The summary of the analysis shows mean score of 23 while that of female was 19, based on this analysis, there is no difference between the academic performance of male and female students taught accounting using of cooperative teaching method in colleges of education in North-East Nigeria.

Test of Null Hypotheses

Three null hypotheses were tested in the study in order to determine the effect of direct and cooperative teaching methods on students’ academic performance in accounting which provide statistical validity to the solution proffered for the null hypotheses raised in the study. The null hypotheses were tested as follows:

HO There is no significant difference in the academic performance of students taught accounting using direct teaching and those taught using cooperative method in colleges of education in North-East Nigeria.

Table 4.3.1: T. T-test analysis for the difference between performance of students taught accounting using direct teaching and those taught using cooperative method.

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Std. Error Mean</th>
<th>t-cal</th>
<th>t-value</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative method</td>
<td>102</td>
<td>67.43</td>
<td>11.27</td>
<td>1.11</td>
<td>15.4</td>
<td>12.03</td>
<td>101</td>
<td>.000</td>
</tr>
<tr>
<td>Direct method</td>
<td>140</td>
<td>51.98</td>
<td>8.17</td>
<td>1.11</td>
<td>15.4</td>
<td>12.03</td>
<td>101</td>
<td>.000</td>
</tr>
</tbody>
</table>

P<0.05

The analysis of data use to determine the difference in the performance of students taught accounting using direct teaching and those taught using cooperative method revealed mean score of 67.43 with standard deviation value of 11.27 for those taught using cooperative method. Those in direct teaching method had 51.98 with standard deviation value of 8.17. The t-cal was 15.4 against the table value of
12.03. The alpha value was less than 0.05. The result shows that difference exist in the performance of students taught accounting using direct teaching and those taught using cooperative method. Hence, the null hypothesis was retained.

**HO₂** There is no significant difference in the academic performance of male and that of female students taught accounting using direct teaching method in colleges of education in North-East Nigeria.

Data collected to analysis the null hypothesis two were summarized as presented in Table 4.3.2

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Std. Err</th>
<th>Mean</th>
<th>Standard Error</th>
<th>t-value</th>
<th>Df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male students</td>
<td>90</td>
<td>66.82</td>
<td>12.68</td>
<td>2.005</td>
<td></td>
<td></td>
<td>2.299</td>
<td>39</td>
<td>.000</td>
</tr>
<tr>
<td>Female students</td>
<td>50</td>
<td>48.07</td>
<td>8.16</td>
<td>.974</td>
<td></td>
<td></td>
<td>8.15</td>
<td>39</td>
<td></td>
</tr>
</tbody>
</table>

Result of data used to determine the difference between the performance of male and female students taught accounting using direct teaching method is presented in the Table. The analysis revealed the mean score of 66.82 and 48.07 with standard deviation of 2.005 and .974 for male and female students respectively. The calculated value of 8.15 was greater than the critical value of 2.299. The alpha value was less that probability value (P<0.05). The result therefore revealed that there is difference in the performance of male and that of female students taught accounting using direct teaching method. Based on this, the null hypothesis was therefore not retained.

**HO₃** There is no significant difference in the academic performance of male and that of female students taught accounting using cooperative teaching method in colleges of education in North-East Nigeria.

**Findings**

The following are the summary of Major findings:-

1. Cooperative teaching method has significant effect on students’ performance in accounting in federal colleges of education in North-East Nigeria P<0.05.
2. Direct teaching method has no significant effect on students’ performance in accounting in federal colleges of education in North-East Nigeria P>0.05 level of significance.
3. There is significant difference in the academic performance of students taught accounting using direct teaching and those taught using cooperative teaching method in federal colleges of education in North-East Nigeria.

**CONCLUSIONS**

The study concluded that direct teaching method had no significant effect on student’s performance in accounting. The use of cooperative teaching method helped the accounting students in improving their academic performance regardless of their gender difference. Students with poor academic performance improved when exposed to Cooperative Teaching method in learning accounting. Therefore, the study concluded that cooperative teaching method had significant effect on helping the accounting students to perform well in Federal Colleges of Education in North-East, Nigeria. This effect will result to students performance in accounting and will promote of accounting option with brightness in accounting education at large.

**RECOMMENDATIONS**

Based on the findings, the research made the following recommendations:

1. The cooperative teaching method should be encouraged at general, while teaching and learning process, in order to improve the level of academic performance of students especially in Accounting and other subjects of studies.
2. Government should provide the schools with all facilities, so as to assist the students, teachers, lecturers, educational systems and the society in general for development of the nation.
As much as possible equal opportunities should be given to the male and female students by creating a very good and conducive atmosphere for students to learn the subject at any level of education.

REFERENCES

Abdulhamid, A. (2008), Effect of Two Teaching Methods on Students performance Agricultural science in Bauchi State, Nigeria.


