# EFFECTS OF GUIDED-DISCOVERY AND DEMONSTRATION TEACHING METHODS ON ACADEMIC PERFORMANCE OF FINANCIAL ACCOUNTING STUDENTS' IN FEDERAL GOVERNMENT COLLEGES, KADUNA STATE

**BY**


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## FEBRUARY, 2015

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**DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION,**
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**AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA.**


**FEBRUARY, 2015**

## DECLARATION

I declare that the work in this Thesis entitled Effects of Guided-Discovery and Demonstration Teaching Methods on Academic Performance of Financial Accounting Students in Federal Government Colleges, Kaduna Statehas been carried out by me in the department of Vocational and Technical Education. The information derived from this literature has been duly acknowledged in text and a list of references provided. No part of this thesis was previously presented for another degree at this or any other institution.

Bibian Ifeoma UNOGU …….. …… …….

## CERTIFICATION

This Thesis entitled Effects of Guided-Discovery and Demonstration Teaching Methods on Academic Performance of Financial Accounting Students in Federal Government Colleges, Kaduna State, by Bibian Ifeoma UNOGU meets the regulationsgoverning the award of the degree of Masters ofEducation (Business Education) of Ahmadu Bello University, Zaria, and is approved for its contributions to knowledge and literary presentation.

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## DEDICATION

This Thesis is dedicated to the Almighty God, and to my beloved Parents, H.R.H Chief (Sir) V.I. and Lolo Ann Unogu (Eze Igbo II, Zaria).

**ACKNOWLEDGEMENT**

All glory to be to God Almighty, in whose power and grace the researcher commenced and completed this research work. The researcher's profound gratitude goes to herwonderful and capable supervisors, Dr. S. Ibrahim, and Prof. A.A. Udoh, for their understanding, encouragements, andcontributions to the success of this research work may they be rewarded bountifully by their Creator, Amen. The researcher is thankful to Prof. J.A. Gwani, Prof. C.E. Dikki, Prof. A.Z. Mohammed, Prof. E. Ike, Prof. P. E. Onuigbo, Dr. B.I. Okeh, Dr. E.E. Adamu, Dr. S.L. Ajayi for their purposeful direction towards the successful completion this study. Also to herinternal examiners, Prof. B.M. Ndomi and Dr. D.O. Oni for their immense suggestions, encouragements and contributions to ensure that this work was successful.Similarly, the researcher wishes to extend her thanks to the Post-graduate co-ordinator in the person of Dr. S. Ibrahimfor his great assistance during the course of this study.

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## ABSTRACT

This study investigated theEffects of Guided-discovery and Demonstration Teaching Methods on Academic Performance of Financial Accounting Students' in Federal Government Colleges, Kaduna State.As a guide for the researcher, five specific objectives were stated, five research questions were raised, and five null hypotheses were postulated. The study utilized the quasi-experimental research design. The population of the study was two hundred and forty eight (248)students in senior secondary classes offering financial accounting infederal government colleges, in Kaduna State. A total offorty eight (48) students served as the sample.The forty eight students were selected from Federal Government College, Kaduna State using purposive sampling technique because the school comprises of male and female students.Thesample was made up of twenty-one (21) male and twenty-seven (27) female students. The instrument used in collecting data for the study was financial accounting achievement test one and financial accounting evaluation test two.Data collected from the study was statistically analysed using mean, standard deviation and standard error for the research questions. The null hypotheses were tested using independent t test at0.05 level of significance. The findings of the study among others indicated, that guided-discovery teaching method has a significant effect on students' academic performance in financial accounting in federal government colleges, Kaduna State(P= 0.000).Implying that student taught with guided-discovery teaching method has significantly higher academic performance than their counterparts taught with lecture teaching method. Therefore, students taught financial accounting usingguided-discovery teaching method are likely to perform better than those taught using lecture teaching method. Based on the findings and conclusion, one of the recommendations made is thatteachers should be encouraged to use guided-discovery teaching method in teaching financial accounting. To achieve this, they should be enlightened on the use of guided-discovery teaching method through organized in-service trainings, workshops and seminars.

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## LIST OF ABBREVIATIONS

| | |
|---|---|
| FAAT 1 | - Financial Accounting Achievement Test One |
| FAAT 2 | - Financial Accounting Evaluation Test Two |
| FGCK | - Federal Government College Kaduna |
| FGGCZ | - Federal Government Girls College Zaria |
| ICAN | - Institute of Chartered Accountants of Nigeria |

# CHAPTER ONE
# INTRODUCTION

## 1.1 Background to the Study

Teaching and learning process is a two-way traffic where the teacher sends out the message while the students acknowledges through feedback, but this give and take processes could only be effective when the teaching method applied is appropriate. Teaching Methods refers to the process of transmitting facts, skills, information and knowledge by the teacher, so as to engage students in meaningful activities for learning and to achieve the objective of the lesson (Joe, 2004). According to Madugu (2005) teaching methods consist of sequence of activities involved in instructing learners. Also, Ajoma (2009) expressed teaching method as a professional technique teachers adopt regularly in instructional exercises to enable them impact relevant knowledge and skills to the learner.

The teaching methods discussed in this study were guided-discovery and demonstration teaching methods. According to Mayer (2003) guided-discovery teaching method encourages students to take more active role in their learning process by answering series of questions or solving problems designed to introduce a general concept. Nelson (2004) pointed out that guided-discovery is a method of teaching, where the teacher acts as a motivator to help students overcome difficulties, by providing illustrative materials for students to study on their own, and provide reasonable answers to questions asked. This method of teaching is learner-centered, therefore it is effective in teaching financial accounting because it involves hearing, seeing and doing by the learner.

Demonstration teaching method according to Clark (2005) is based on simple but sound principle that we learn by "doing". This method is particularly effective in teaching a subject like financial accounting that can be observed and then performed. It is therefore pertinent to know that not all methods are appropriate for learners at the secondary school level, and the most enjoyable aspect of teaching and learning occur when a variety of teaching methods are used. In classroom around the world, teachers lecture, students take notes and then students are tested on what they have learned (Akintola, 2007). Today, experiential or ''hands-on'' learning is fast replacing or supplementing the traditional ''chalk-talks'' method through experiments, activities, simulations, debate, team work and other participatory activities which aids retention, motivates students to learn and also encourages group cooperation. Therefore, the effective learning of financial accounting at the secondary school level largely depends on the teaching method used in teaching the subject.

The Federal Republic of Nigeria (2004) states that the broad goal of secondary school education is to prepare individuals for "useful living" within the society and for higher education. In order to achieve these objectives, secondary school education in Nigeria has six years duration given in two stages – three years of junior secondary school, followed by three years of senior secondary school. The curriculum designed for senior secondary school is comprehensive and broad based, aimed at broadening students' knowledge and outlook. Subjects offered in senior secondary school are in three groups – core subjects, vocational and non-vocational subjects. Hence one of the vocational subjects is financial accounting. Therefore financial accounting is a skill subject, which prepares the learner to be self-reliant as enshrined in the National Policy

of Education. Okwuanaso and Nwazor (2001) defined financial accounting as the process of collecting, recording, analyzing and summarizing in monetary terms the information about an organization. Hence, financial accounting report gives the monetary information of an organization, and does not include operations of the organization. The central purpose of teaching financial accounting at the secondary school level is to effect a positive outcome in the educational behavior of the learner.

Therefore, if the teaching method is right as well as the level of teaching, and the subject to be taught is also right, the resultant effect should be positive. "Effect" therefore, is the mean difference on a variable between experimental and control groups, divided by the standard deviation of that variable. Amos (2008) pointed out that effect indicate things which arise out of some antecedent, or follows as a consequent. It is usually regarded as a genetic term, which springs directly from something which can properly be termed as a cause. It is possible to fore see the effect of a measure, or even conjuncture its consequence but we rarely can guest its final result. According to John (2009) effect is a possible outcome of a variable, an event or a subject matter, these variable, event, or subject matter could either be positive or negative, depending on students' academic performance.

Students enrollment in commercial classes, where financial accounting is one of the core subjects, will have a tremendously effect if students' academic performance in the subject is encouraging. According to River (2007) students' academic performance is the ability of an individual to study, remember facts, and successfully pass a given examination. He also added that being able to study effectively forms a larger pattern of knowledge. David (2007) opined that students' academic performance involves the

general mental capability to reason, solve problems, think abstractly, learn and understand new material through profiting from past experience, which in turn will be measured against the stated specific objectives. Academic performance denotes "attainment", which draws on a variety of mental processes, including memory, perception, thinking and reasoning (Fan, 2008). Morgan (2010) added that students' academic performance is an assessment strategy by which the evidence about students learning is gathered, through students work on a performed task. There is no doubt that much is expected from our educational system in terms of preparing future citizens, workers, and leaders to perform better. To that end, schools are expected to influence students' vocational preparedness by using the appropriate teaching method so as to improve their academic performance, which in turn is instrumental to the development of a nation, and reputation of the colleges involved.

The Federal Government colleges in Nigeria, also known as unity colleges were first established by the colonial administration as model schools that would set standard for similar schools in Nigeria. The colonial government established Kings College, Lagos in 1909 and Queens College in 1927 in Lagos. Following these, three Unity schools were established in Sokoto, Okposi and Warri in 1966 by the Federal Government under the leadership of Alhaji Sir Abubakar Tafawa Balewa. According to Unieboje (2009) the founding fathers believed that a new generation of Nigerians will arise and live and also work in faith, love and unity for the common goal of a better Nigeria in peace and harmony. From inception to date, One Hundred and Four (104) Unity colleges have been established in various states in Nigeria, including Kaduna State which is the central focus of this study. The core required courses for all students in senior classes include: English

Language, Mathematics, and a Nigerian Language. Depending on each students area of specialization, some electives include Sciences (Physics, Chemistry, and Biology), Humanities (Literature, History, and Geography) Commercial (Accounting, Economics, Commerce, Food and Nutrition, Technical Drawing). In their Sixth year, students take the Senior Secondary Certificate Examinations (SSCE), which is prepared and administered by the West African Senior Secondary Examination Council (WAEC) and National Examination Council (NECO). The variables so far discussed formed the background on which this study was conducted.

## 1.2 Statement of the Problem

The poor academic performance of students in financial accounting in Kaduna state was clearly shown in the National Examination Council (NECO) results of 2007-2012, where the percentage of passes in 2007 was 23.28%, in 2008 was 23.12%, in 2009 it fell to 18.11%, in 2010 it was 13.47%, 12.28% and 12.08 in 2011 and 2012 respectively (details in appendix VII). Teaching methods need to be improved and appropriate teaching strategies employed as the teaching learning situation may demand, because there is however a need to understand that for different topics in accounting, the teaching approach may differ depending on the complexity and structure of the topic (Akumu, 2011).

Following the interactions between the researcher and some financial accounting teachers and students in federal government colleges, Kaduna state, some teachers attributed the problem of poor performance to teaching methods used in teaching financial accounting. According to them, the lecture, discussion, scaffolding and cooperative teaching methods has been used, but performance in senior certificate

exanimation in financial accounting continues to be poor. Some complained that there is little or no time to complete the financial accounting syllabus in the schools and as such some topics are left untouched or carried over to the next term or even the next session. On the other hand, some students complained that some of their teachers are coppers and as such do not keep to their teaching periods, while other students complained that the subject was too difficult to assimilate as it required a lot of calculation. From all the interactions so far stated, it is glaring that student poor performance in financial accounting is the problem that prompted this study, and as such will be addressed using empirical evidences.

## 1.3 Objectives of the Study

The general objective of this study is to determine the effects of guided-discovery and demonstration teaching methods on academic performance of financial accounting students in federal government colleges, Kaduna State.

The specific objectives are to:

1. determine the effects of guided-discovery teaching method on students' academic performance in financial accounting in Federal Government colleges, Kaduna State.
2. identify the effects of demonstration teaching method on students' academic performance in financial accounting in Federal Government colleges, Kaduna State.
3. determine the difference between the academic performance of students taught financial accounting using guided-discovery teaching method, and those taught

using demonstration teaching method in Federal Government colleges, Kaduna state.

4. identify the difference between the academic performance of male students taught financial accounting using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government colleges, Kaduna state.
5. Find out the difference between the academic performance of female student taught financial accounting using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government colleges, Kaduna state.

## 1.4 Research Questions

In line with each specific objective, the following research questions were raised for this study.

1. What is the effect of guided-discovery teaching method on students' academic performance in financial accounting in Federal Government colleges, Kaduna State?
2. What is the effect of demonstration teaching method on students' academic performance in financial accounting in Federal Government colleges, Kaduna State?
3. What is the difference between the academic performance of students taught financial accounting using guided-discovery teaching method, and those taught using demonstration teaching method in Federal Government colleges, Kaduna State?

4. What is the difference between the academic performance of male students taught financial accounting using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government colleges, Kaduna State?
5. What is the difference between the academic performance of female students taught financial accounting using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government colleges, Kaduna State?

## 1.5 Research Hypotheses

In line with each Research Question, the following Null Hypotheses were tested at 0.05 level of significance which is 95% confidence level:-

$Ho_1$: Guided-discovery teaching method has no significant effect on students' academic performance in financial accounting in Federal Government colleges, Kaduna State.

$Ho_2$: Demonstration teaching method has no significant effect on students' academic performance in financial accounting in Federal Government colleges, Kaduna State.

$Ho_3$: there is no significant difference between the academic performance of students taught financial accounting using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government colleges, Kaduna State.

$Ho_4$: there is no significant difference between the academic performance of male students taught financial accounting using guided-discovery teaching method, and those taught using demonstration teaching method in Federal Government colleges, Kaduna State.

$Ho_5$: there is no significant difference between the academic performance of female students taught financial accounting using guided-discovery teaching method, and those taught using demonstration teaching method in Federal Government colleges, Kaduna State

## 1.6 Significance of the Study

The findings of this study will be of great importance to students, business education teachers, curriculum planners and ministry of education. Students will benefit from this study because it will help them develop interest in financial accounting, have a better understanding of the subject and perform excellently in both internal and external examinations. Teachers in business education will stand a better chance to benefit from this study because the study will suggest different teaching methods that will assist them in selecting the appropriate method to enable them manage time during lessons, and complete their syllabus in due time.

The result of this work will enlighten curriculum planners, because it will suggest relevant teaching methods for teaching different topics in the curriculum, which will invariably improve teaching quality in schools. Federal and state ministries of education will benefit from this study because the study will help in achieving the objectives set by the ministries for students of financial accounting. Finally, this study will serve as a point

of reference for further research in other part of the country for better teaching and learning to take place.

## 1.7 Basic Assumptions of the Study

For the purpose of this study, it was assumed that:

Other factors can affect students' academic performance in financial accounting such as peer influence, parental influence. Also, students in senior secondary schools have the ability to study financial accounting.

## 1.8 Delimitations of the Study

The study was delimited to Federal Government college, Kaduna State, because the school comprises of a mixed gender, (male and female). It was also delimited to the effects of two different teaching methods (guided-discovery and demonstration teaching methods). It was also delimited to, senior secondary one (SSI) financial accounting students of Federal Government colleges, Kaduna State because previous knowledge of financial accounting might affect their performance. Finally, the study was delimited to final accounts of a sole trader, because of how relevant this topic is to any vocational student.

# CHAPTER TWO
# REVIEW OF RELATED LITERATURE

This chapter reviewed theoretical issues and empirical studies related to this study. The review was organized under the following sub-headings:

2.1 Theoretical Framework

2.2 Conceptual Framework

2.3 Concept of Teaching

2.4 Teaching Methods

2.5 Academic Performance

2.6 Empirical Studies

2.7 Summary of Literature Reviewed

## 2.1 Theoretical Framework

This work is based on Bruner Constructivist Learning Theory (1967). The theory states that learning is a process in which the learner is able to build on present and previous information through practice and activity. The student should be able to take information, create ideas and make choices by utilizing a thought process. The teacher should therefore encourage students to develop the skills to find out principles on their own. According to him, constructivist learning theory takes place in problem-solving situations where the learner draws on his or her own past experience and existing knowledge to discover facts and relationships and new truths to be learned.

As a result, students may be more likely to remember what they see and practice on their own. Students therefore interact with the world by exploring and manipulating objects, wrestling with questions and controversies or performing experiments.

Proponents of this theory believe that it has many advantages which include: Encouraging active engagement, promotes motivation, promotes autonomy, responsibility, and independence, promotes activity learning, help in development of creativity and problem solving skill, encourages the use of all the five senses in learning and promotes a tailored learning experience. This research work is related to Jerome Bruner's constructivist learning theory because it has to do with activity learning and this work is also on activity learning.

## 2.2 Conceptual Framework

The major concepts used in this study were guided-discovery teaching method, demonstration teaching method, academic performance and financial accounting.

### 2.2.1 Guided-discovery

Guided-discovery is a teaching method, that enable learners create their own learning experience, with the guidance of their teacher. This method has recently been emphasized in modern teaching. It has been identified as providing meaningful learning and thus teachers are encouraged to use them. A guided-discovery method involves an unstructured exploration in some problem-solving experiences in which students can draw general conclusions from data gathered through measuring, classifying, inferring, predicting, communicating, analyzing, clarifying, describing and formulating relevant questions (Moses, 2003). The discovery method is a teaching technique that encourages students to take a more active role in their learning process by answering a series of questions or solving problems designed to introduce a general concept (Mayer 2003). discovery method therefore refers to how much guidance a teacher should give their students.

### 2.2.2 Demonstration Teaching method

Demonstration is a teaching method used by a teacher to illustrate a procedure to be followed by students. In fact, it is the basic method for introducing new skills to the learner, for developing understanding and for setting people to accept new and better ways of doing things. The demonstration is done by the teacher while the students watch. Demonstration method of teaching according to Clark (2005) is based on the simple but sound principle that we learn by "doing.

### 2.2.3 Academic performance

Academic performance is the result of students' mental ability in an educational setting. David (2007) opines that students' academic performance involves the general mental capability to reason, solve problems, think abstractly, learn and understand new material through profiting from past experience, which in turn will be measured against the stated specific objectives.

### 2.2.4 Financial Accounting

Financial accounting is a process of summarizing in monetary terms the financial transaction of a company. Okwuanaso and Nwazor (2001) defined financial accounting as the process of collecting, recording, analyzing and summarizing in monetary terms the information about an organization.

## 2.3 Concept of Teaching

Teaching is the process through which knowledge, skills and values are consciously or unconsciously acquired as a result of interaction between the teacher and his pupils. Therefore, teaching as a profession plays an important role in every

educational system. Teaching therefore according to Maduewe, Ezeani and Maduewesi (1999) involves a coherent and systematic accumulated body of knowledge conserved with skills that have wealth of intellectual foundation. It is a conscious and deliberate attempt by matured and experienced persons to impact information, knowledge, skills, attitude, values and habits to inexperienced and immature persons with the intention of bringing about learning. They pointed out that teaching performs the following roles that are to:

1. Increase the odds that potential learners will learn.
2. Point learning towards desired accomplishment by learners.
3. Make knowledge sensible.
4. Present learners with a live opportunity to learn
5. Enhance the persons who are learners.

Aliyu (2001) also stated that teaching is the imparting of knowledge and skills for effective classroom skill acquisition. There are different ways in which teaching can be carried out depending on what an individual wants to achieve or wants to impact on a learner at a given point in time. Also Duncan in Nzeribe and Sawa (2002) outlined that teaching is an activity, a unique profession and a humane act in which one's creativities and imaginations are put into use. Teaching in other words, is a cluster of activities that one engages in doing some specific time which is an act of a particular kind. Lenier in Nzeribe and Sawa (2002) viewed teaching as manipulating the variable of instruction to produce intended changes in learners' behavior. Okoh (2003) defined teaching as the conscious and deliberate effort by a mature or experienced person to impact information, knowledge, skills and so on, to an immature or less experienced person with the intention that the learner will learn or come to believe what he is taught on good grounds.

According to Abimbola (2004) teaching is a process of facilitating students learning through proper management by the teacher of the interrelationships among students interests, content for learning and the methods as well as materials he or she intends to use in the teaching and learning of the content material. Mishara (2007) observed that teaching is much more difficult than most faculties are willing to acknowledge. Teaching and learning should be inseparable, in that learning is the goal of teaching. Mishra (2007) further explained that teaching is part of a whole, which comprises of the teacher, the learner, the disciplinary content, the learning / teaching process, and the evaluation of both the teacher and the learner. Cain (2008) emphasized that, the success in teaching is measured by the degree to which the teacher is able to achieve the desired learning in his students, and to achieve this, the teacher must know the type of learning needed by his pupils and how to bring about such learning. In other words, the basic thing in teaching concerns the selection of content and material. Yet Walk (2008) described teaching as an art which can be made concrete through practice and not by formal study.

There are different ways teaching could be carried out, depending on what an individual intends to achieve or wants to impact in the learner at a given time. According to Weboon (2009) Teaching is the activity of educating or instructing an activity that impacts knowledge or skill which results in to learning, and in turn brings about change in behavior and skill acquisition of the learner. Therefore, the success in teaching is measured by the degree to which the teacher is able to achieve his or her desired learning in the student, and to achieve this, the teacher must know the type of learning needed by his pupils, and how to bring about such learning.

## 2.4 Teaching Methods

Teaching methods involves the study and practice of various methods of teaching which includes the mastering and application of different principles of learning. White (2003) opined that teaching methods are the tools or means through which practicing teachers engage their students into meaningful activities, as a result of which ideas, values and facts are learned. Joseph (2004) added that for effective teaching to take place, the skillful teacher needs to use different methods and techniques at his command, even though there is a great diversity in teaching methods, there is no one of them that can be regarded as the best for every teaching situation. A carefully designed teaching method, can work wonders in making learning effective. Therefore the success in the use of the method depends on an intelligent analysis of the educational purpose, the pupils in the class, and the curriculum content at the moment as well as the type of subject being taught. Some of these teaching methods according to Daniel (2006) includes: lecture method, Discussion Method, Inquiry Method, Project Method, and Case Study Method, Guided-discovery Method and Demonstration Methods. A brief discussion of these methods is as presented in the subsequent paragraphs below:

### 2.4.1 Lecture Teaching Method

The lecture method is sometimes referred to as ‘exposition’, reception learning or chalk and talk approach. Ajoma (2009) described lecture method as a process whereby teachers give a talk on a subject to students, while the students listen and think about it. In the lecture method, the teacher gives an address to the class and his talks dominate the activity of the class. The lecture method is seen as one which leads to an easy coverage of the school syllabus. Large amount of material could be covered to a large class size in a

single period. . According to her, this method involves a verbal presentation of ideas, concepts, generalization and facts. The practice here is that of spoon-feeding the learner with information or facts, while the students swallows. Therefore, the teacher takes most of the time and thus making teaching teacher-centered, while the student is merely or mostly a passive learner who must accept the information imparted to him.

The lecture method is mostly used for students in the tertiary institutions, where the material to be learned is given in a completed form to the learner (Akinsolu, 2010). The teacher dishes out the information to the learner, and in most cases, the learners are passive like empty vessels to be filled. The lecture method therefore reverses the concept of education which maintains that the best learning is that which results from purposeful activity. Furthermore, anything which puts the pupil in a passive situation and stresses activity for the teacher is bound to benefit the teacher more than the pupil (Edwin, 2011). Under the setting of the lecture method, it is the teacher who learns to use reference so as to outline, to organize ideas, to formulate conclusions and to speak.

The advantages and disadvantages of lecture Teaching Method according to Marilla (2006) are:

1. The lecture method can be used in any class size and it is often the only option in large classes.
2. A well presented lecture can be motivating to the students and inspire them to pursue a topic on their own.
3. A lecture can be a model of the functioning profession against which students can assess their behavior.
4. The lecture method of teaching is sometimes the only way of presenting current material which is not available in print.
5. The instructor has total control over what occurs in class when it comes to this method of teaching
6. Most importantly, many grounds are covered within a lesson.
7. The presentation of the lesson is often orderly because there is little distraction to the lectures

8. This method gives learners a framework or structure to which further learning can be achieved.
9. No money is spent purchasing items.
10. Many learners (over a thousand people) can receive information from one lecturer.

**The Disadvantages of Lecture Teaching Method**

1. The lecturer is teacher-centered teacher-paced method, which does not allow for differences in students learning styles or rates.
2. Because student's participation is minimal, lecturing promotes passivity in students.
3. Learning from lecture method largely depends on students' abilities to take notes.
4. Because the lecture is teacher-centered, it tends to promote a one-way communication and the notion is that the truth resides in the instructor.
5. Feedback is usually different with such an approach.
6. This method is not suitable for the young or pupils who may have no note-taking skills and whose attention span is short.
7. The fundamentals of the lesson may not be understood by students during a lecture.
8. Learning through active involvement is omitted because the learner is only put in the position of a listener.
9. As this method is didactic, the learner is easily bored, frustrated and this may resort to restlessness and subsequent disruption.
10. This method encourages memorization and regurgitation of information without necessarily aiding understanding.

### 2.4.2 Discussion Teaching Method

Discussion is when two or more people interact verbally with each other. Discussion Teaching Method could be adopted deliberately in learning situations, but sometimes it occurs spontaneously as a teacher uses this method of teacher or another (Martin, 2005). According to him, discussion could be considered as a technique within a method, sometimes it may occur at brief intervals during an informal lecture, and so maximum participation is achieved. In this way, discussion could be considered as student-centered teaching. It involves taking over subjects from various points of view, and the teacher's role is not to dispense or communicate knowledge, but to act as a

moderator. The teacher does not dictate or influence the view points of the students as he moderates the discussion.

There is no doubt that many teachers have experienced days when spontaneous discussions arose even though they were unplanned. Discussions are therefore, as important as learning process because it is a way of considering various facts of problem and also because it lays the groundwork for the many discussion situations in which young people and adults are constantly taking part Jane (2006). In a different way, discussion implies the participation of pupils in the process of learning by evaluating points of view, raising issues of their own, and seeking solutions based upon study, examinations and group analysis under the teacher's guidance (Dennis, 2006).

The advantages and disadvantages of Discussion Teaching Method according to Marilla (2006) are:

**Advantages of Discussion Teaching Method**

1. Discussion method gives opportunity to students to develop oral communication skills.
2. It helps critical and evaluative thinking and listening
3. Discussion method helps develop positive interpersonal relationships, because the students interact with the teacher and with their colleagues on the basis of their desire to gain knowledge from one another.
4. This method assists students to develop a sense of confidence through participation and exchange of ideas.
5. Discussion method encourages participation and involvement in what is going on in the learning environment in this way, students acquire knowledge.

**Disadvantages of Discussion Teaching Method**

1. Discussion method could be time consuming particularly where students may give variable answers which may not lead to the objective
2. It is difficult to achieve maximum interaction with a large class size.
3. It may not be fruitful particularly where the brighter students are given the chance to show off.

4. Students who lack the knowledge or background on the topic being discussed may become bored and disinterested in the lesson because they are not involved.
5. If discussion is not well handled, it may involve wandering from one topic to another.

### 2.4.3 Inquiry Method Teaching Method

Inquiry teaching method as opined by Celeb (2004) is built on discovery, and as both methods seem to be tied up with each other, inquiry is done with a view of finding some answers or reasons why a certain problem exists. Inquiry investigations go further than discovery and so the learner needs to use all his discovery capabilities in order to succeed in the inquiry (Clark, 2005). The inquiry involves the unraveling of the hidden relationship of nature. In order to conduct inquiry successfully, the learner must exhibit certain relatively sophisticated mental processes. In an inquiry exercise, the investigator originates his own problem, he designs his own experiments or procedures for colleting data or relevant information and he arrive at his own conclusions and subsequent principles involved (Jane, 2006). Inquiry technique of teaching according to Marilla (2006) involves guided inquiry, free inquiry and modified free inquiry. A brief discussion of these teaching techniques is presented below:

**1. Guided inquiry**

This could be either inductive or deductive in nature. In the deductive mood, the general principle is given and the student is required to use the principle in order to discover the solution to a specific problem. But if the solution to a problem is given and the students are required to discover the general principle on which the solution is based, the guided inquiry is adopted through an inductive method. The

primary thing is that in this method, the teacher originates the problem to be solved.

**2. Free inquiry**

A true free inquiry occurs when students originates and carry out their own investigations. In this task, neither the general principle nor the solution is given and the students are required to discover both the principle and the solution.

**3. Modified free inquiry**

This method has little teacher guidance, but it is not a total guidance as in guided inquiry. Here, the teacher provides the problem, and then the students are asked to solve the problem in their own way. The teacher therefore acts as a resource person only in terms of giving motivation but not providing clues to the solution of the problem.

### 2.4.4 Project Teaching Method

The project method is a form of individualized instruction whereby the learner performs a unit of activity in a natural manner and in a spirit of purpose to accomplish a definite goal (Jude, 2005). The project is a learning unit usually conducted by individual students, or sometimes group of students under the guidance of the teacher. The project topics are chosen based on the background experience of the student, and the work to be accomplished and completed is meant to be an original work of the student or students performing the task. According to Bessie (2006) it is important that every project method should be scrutinized for suitable questions and characteristics before being assigned to the pupils. Apart from the fact that the project should provide a valuable learning experience or exercise, it should have bearing on the course or lesson being taught in the

class. It is therefore the responsibility of the teacher to help and guide the pupil when the project has been approved for him. However, the primary responsibility for executing the project rests on the pupil.

The advantages and disadvantages of Project method of teaching according to Marilla (2006) are:

**Advantages of the Project Teaching Method**

1. It encourages creativity, originality and freedom of expression and initiative.
2. Project method makes the learner more pragmatic.
3. It facilitates individualized learning thus ensuring self-confidence in the learner.

**Disadvantages of Project Teaching Method**

1. Projects may sometimes be expensive in terms of material and time.
2. Order and discipline might be difficult to maintain.
3. It is difficult to choose projects topic.

### 2.4.5 Case Study Teaching Method

A case study is a project approach to teaching. It involves giving pupils real life cases to solve, by singling out individuals, groups of individuals, institutions, or communities for study (Alex, 2004). Usually, case studies are motivated by problems emanating from the case or cases being studied. Learning occurs as a result of pupil's collectivity looking at a case and making judgments about it on other to proffer reasonable solutions. According to Jude (2005) Case Study is therefore a way of learning general principles though being involved in a particular situation, usually one which could occur in real life, but distracting details smoothed out for the principles of laying bare the essentials.

The advantages and disadvantages of Case Study Teaching Method according to Marilla (2006) are:

**Advantages of Case Study Teaching Method**

1. It is a realistic method, which deals with real life situations.
2. Case study is an active method of teaching which helps the learner.
3. This method is an approach that can change attitudes since it can arouse powerful feelings.
4. It can be used successfully in a class with pupils of mixed ability.
5. This method offers pupils the opportunity of working in groups.

**Disadvantages of Case Study Teaching Method**

1. It is time-consuming when compared with other methods of teaching.
2. The information presented in cases may be limited in comparison to real life situations, which may create a false impression of reality.
3. It is difficult when it comes to teaching manipulative skills.

Authors differ among themselves on what they regard as methods of teaching. A list of Teaching Methods given by one author is likely to differ from the list given by another author. The differences in opinion according to Mathias (2008) arise from two main sources:

1. Some authors highlight and emphasizes a few methods and either disregard the other methods or just mention them; for example, American authors mostly give prominence to inquiry method and give little attention to other methods of teaching.
2. Again, it is not always easy to clarify what should be regarded as a method of teaching. For instance, some authors recognize 'activity method' as a method of teaching, but several methods of teaching such as project, demonstration process, laboratory and simulation all involves activity.

### 2.4.6 Guided-discovery Teaching Method

This method has recently been emphasized in modern teaching. It has been identified as providing meaningful learning and thus teachers are encouraged to use them. As opined by Kenneth (2003) discovery occurs when an individual is involved mainly in using his mental processes to mediate (discover) some concepts or principles. This means

that as a result of some mental and physical activity, an individual is able to grasp concepts and principles in various phenomena. Many educators who advocates this method, believes that many concepts and principles in various disciplines particularly in accounting should not be taught to the learner but the learner should be left to discover those concepts and principles through problem-solving activities.

A Guided-discovery method involves an unstructured exploration in some problem-solving experiences in which students can draw general conclusions from data gathered through measuring, classifying, inferring, predicting, communicating, analyzing, clarifying, describing and formulating relevant questions (Moses, 2003). The discovery method is a teaching technique that encourages students to take a more active role in their learning process by answering a series of questions or solving problems designed to introduce a general concept (Mayer 2003). Discovery method therefore refers to how much guidance a teacher should give their students. According to Mayer, (2003) there are three levels of guidance in teaching:

1. **Pure Discovery** - The student receives representative problems to solve with minimal teacher guidance. Pure discovery methods often require excessive amounts of learning time, result in low levels of initial learning, and result in inferior performance on transfer and long term retention. When the principle to be learned is obvious or when a strict criterion of initial learning is enforced, pure discovery students are likely to behave like guided discovery students. Apparently, pure discovery encourages learners to get cognitively involved but fails to ensure that they will come into contact with the rule or principle to be learned.

2. **Guided Discovery** - The student receives problems to solve, but the teacher provides hints and directions about how to solve the problem to keep the student on track. Guided discovery may require more or less time than the third, expository instruction, depending on the task, but tends to result in better long term retention and transfer. Guided discovery both encourages learners to search actively for how to apply rules and makes sure that the learner comes into contact with the rule to be learned.

3**. Expository** - The final answer or rule is presented to the student.

When well devised and managed, the discovery method offers active learning and achievable challenge which engages interest. Expository Instruction may sometimes result in less learning time than other methods and generally results in equivalent levels of initial learning as compared to guided discovery. If the goal of instruction is long-term retention and transfer, expository methods seem inferior to guided discovery. Apparently expository instruction does not encourage the learner to actively think about the rule but does ensure that the rule is learned. Consequently, discovery activities motivate all but the most apathetic students. However in Guided-discovery teaching, the instructor guides the student's thought process by posing a series of questions whose responses would lead to the understanding of a concept before it is explicitly stated. "Children act as detectives as they solve concept-attainment activities in stimulating learning environments. In doing so, they place a newly introduced object in a category that they have previously discovered or identified (Gallenstien 2004). This teaching method is believed to increase retention of material because the student organizes the new information and integrates it with information that has already been stored. Emphasizing the need for discovery method of teaching and learning is a knowing process, not a product. Therefore, to

instruct someone in a discipline is not a matter of getting him to commit results to mind, rather, it is to teach him to participate in the process that makes possible the establishment of knowledge

Geoff (2004) gave the following main advantages and disadvantages of the Guided-discovery Method:

**Advantages of Guided-discovery Teaching Method**

1. This method makes learning more student-centered than teacher-centered.
2. It is active, involving motivation and fun. The questioning involved fosters curiosity and intrinsic interest in the subject matter.
3. Students must make their own meaning that is, creating understanding of the subject matter.
4. Students are likely to remember what they worked out for themselves.
5. It involves the student's high-order thinking.
6. Guided discovery allows students enjoy the fun of puzzling things out for themselves.
7. Initiatives and analytical thoughts are developed.
8. Enthusiasm and interests are generated in the students.
9. With repeated success achieved through students effort, the student can always be expected to succeed in any endeavor, thus a positive attitude to work is developed.
10. Manipulative skills are developed.

**Disadvantages of Guided-discovery Teaching Method**

1. The method is slow and time-consuming.
2. It is expensive in terms of fund.
3. It is not possible to use this method in all situations, particularly in a large class size.
4. As much is expected of the students, they could be frustrated, particularly if they cannot find appropriate clues to solve the problems or if they cannot solve it at all.
5. There is little or no attention to the acquisition recognized body of knowledge or instruction and so the method becomes indifferent to the content of the syllabus.

According to Daine (2006) Characteristics of Guided-discovery Teaching Includes the Following:

1. Teacher makes all planning and evaluation decisions and some execution decisions, but decisions must be modified as a result of student response.
2. Student evaluation decisions become intertwined with execution decisions and teacher provides reinforcement for all responses
3. The question and answer process works towards a single goal
4. Questions must be designed so that question 2 is based on the answer to question 1,

question 3 is based on information from question 2 and so on
5. Each succeeding question should narrow in on the target until the solution to the final question results in the desired discovery - a funnel effect
6. The teacher always knows the answer, but students do not.

### 2.4.7 The Demonstration Teaching Method

The demonstration method is one of the teacher's greatest assets in arriving at fundamental skills and practice in a very short amount of time. Demonstration method is valuable to people who want to learn new skills or ability or even to learn a better way of doing something Godwin (2004). In fact, it is the basic method for introducing new skills to the learner, for developing understanding and for setting people to accept new and better ways of doing things. The demonstration is done by the teacher while the students watch. Demonstration method of teaching according to Clark (2005) is based on the simple but sound principle that we learn by "doing. It is accompanied by explanations on the part of the teacher. This teaching method can only be effective if it is properly chosen and used. Demonstrations, when used by the skillful teacher, are conducive to the development and maintenance of interests among pupils.

Demonstration is a method of teaching where sight and hearing are the major means of communication (Martin, 2005). The instructor generally begins with a description of what is to be shown along with a list of main points on which the students should focus their attention. This is followed by the demonstration proper, accompanied by a running narrative discussion of what is happening. If the demonstration is to teach a skill, then there follows a period in which the students are given an opportunity to perform the procedure just demonstrated while the instructor circulates and offers suggestions and feedback. According to Dennis (2006) demonstration can be practiced in

three major ways: the class demonstration, the group demonstration and the individual demonstration.

**The class demonstration**

In many course of study, there are instances when demonstrations are used as a teaching method for the entire class. Since it involves the entire class, the teacher's time is saved as there will be no cause for some students to bother the teacher to repeat the procedure, or to give them the basic information. Generally, this type of demonstration invokes much enthusiasm and interest among the pupils, especially as the entire class members are actively involved in watching the teacher and asking questions on some points not clear to them.

**The group demonstration**

The major difference between this type of demonstration and the class demonstration is that it is presented in a section of the class while the rest of the class is engaged in another assignment, which may not be related to the topic presented. The need for group demonstration arises as a result of individual differences in ability and aptitude which may cause some pupils to complete a given project ahead of time, thus creating a serious gap in maintaining a uniform demonstration.

**Individual demonstration**

Despite the other types of demonstration, there are times when individuals are taught at a time. Some of the outstanding reasons for using this method could be because of differences in background, mechanical aptitude and general learning ability, irregularity in attendance, differences in speed and differences in problems attacked by pupils.

The advantages and disadvantages of Demonstration method of teaching according to Marilla (2006) are:

**Advantages of Demonstration Teaching Method**

1. Demonstration could be used to introduce a lesson or to end a lesson.
2. It assists students to become good observers.
3. This method is economical in terms of time and money; fewer materials are needed by an instructor doing the demonstration.
4. This method saves a lot of time.
5. Demonstration adds variety to a lesson.
6. Demonstration reduces the period of trial and error, and avoids fixation of wrong ideas.
7. It defines the standard of performance and improves student's ability to observe accurately and completely.
8. It is effective as an induction to new skills.
9. It has a high interest value.
10. All students follow the same operation, and the teacher interprets the work to all of them.

**Disadvantages of Demonstration Teaching Method**

1. It sometimes excludes student's participation which could lead to boredom.
2. This method assumes all students see, hear and feel same.
3. This method cannot replace a real practical work
4. It is difficult to evaluate thoroughly students' understanding during the demonstration exercise.
5. When classes are large, there could be problem of audibility and visibility.
6. If demonstration fails, students could develop lack of confidence in their teacher.

### 2.4.8 Usage of Guided-discovery and Demonstration Teaching Method In Teaching Financial Accounting

The successful learning of accounting in secondary schools depends largely on the correct use of teaching methods, whose activities targets most learning experiences (Bello, 2003). Students may learn names and definitions of different accounts in the accounting syllabus through the use of guided-discovery method theoretically, but to master the application of accounting entries, a proper demonstration is involved to ensure students observe the teacher properly, and subsequently apply the knowledge of demonstration and what they have seen and learnt to solve an account. Using

demonstration teaching, the teacher could give a demonstration or a format expected to be used in solving a specific account, as well as emphasize and explain specific important points with regards to the format. According to Ken (2004) Demonstration method gives every student the ample opportunity to see critical elements involved in solving out an account. Through guided discovery method of learning, the teacher may guide the class through various steps in working and application of figures in the format demonstrated. Where demonstration method of teaching ends, guided discovery method of teaching begins.

Therefore, practice is useful in Demonstration and Guided-discovery Teaching Method. If the teacher is showing the class how to solve an account, he would first explain the format to the students, put them through on the step by step procedure of applying it, tell them why it should be applied and then guide them through the critical and fundamental aspects of the account. The students would therefore play their own parts by repeating the performances many times as they put the workings together in proper format using sequence and timing. Proper timing should be given to students to practice the account either by themselves or with a partner where necessary (Ubah, 2004). The teacher would then serve as a motivator by walking round the class, making corrections and providing necessary encouragement. At the end of the lesson, the students would be required to discuss points of emphasis. The teacher should know the methods available and should consider the advantages and disadvantages of each of them in order to make the best use of them in teaching financial accounting.

According to Obi (2007) sometimes the use of a single method could be difficult in teaching accounting therefore it is advisable for a teacher to combine two or more

methods to achieve his objective. As opined by Kar (2007) The choice of methods to be used in teaching Financial Accounting in Secondary Schools depends on several factors which include aims and objectives, age of the learner, the topic and the training and experience of the teacher. A brief discussion of these factors is presented below:

**1. Aims and objective**

This is an important factor in determining the choice of method to be used in teaching accounting in secondary schools. If the aim of a particular topic is to enable students balance account properly, then it becomes obvious that this cannot be achieved through lectures or discussion, but by actual practical activity where students perform the workings after being illustrated by the teacher.

**2. Age of the learners**

A teacher should select methods where young learners can watch, hear and imitate his actions. For example, in teaching trading profit and loss account, the teacher should demonstrate to the students the format and guide them on how they can apply the figure to the format. Young people should not be subjected to lecture method when it comes to accounting since their attention span and level of 'abstract thinking' is still very low. Teachers are therefore advised to study the teaching methods well and get conversant with them.

**3. The Topic**

Financial accounting is a broad subject, with a lot of educational goals to be achieved. It therefore consists of various topics in which different teaching methods are to be applicable for best results. For example, some topics in accounting are theoretical, while some topics involves practical. A teacher

therefore should not use the same methods in teaching both the theoretical topics and those topics that requires real practice. Teachers therefore should refer to the work of Piaget as a guide for only formal operations and concrete operational stages in teaching Financial Accounting in secondary schools.

**4. Training and experience of teachers**

The training and knowledge base of a teacher is very important. When a teacher is well trained on all methods of teaching, he becomes more confident in methods to use in teaching accounting and is more likely to succeed. It is better for a teacher to use poor methods, which he can handle well than a good method clumsily handled. Different methods are better experimented during training.

## 2.5 Academic Performance.

Generally, Students Academic Performance portrays their general ability in intellectual functioning. According to Bourne (2004) examinations have been used as the method of assessing peoples' aptitude and abilities. That social reality means that there is skewness towards examination results in quantifying academic performance. Within this construct, the yardstick for evaluating an individual's knowledge reservoir, skills level and competence in performing a particular task is normally an examination. As such, Students Academic Performances are mostly judged through examinations. Consequently, examination is the metre used for assessing future social development, and this plays a determining role in determining students' Academic Performance.

David (2007) opined that Academic Performance involves the general mental capability to reason, solve problems, think abstractly, learn and understand new material through profiting from past experience, which in turn will be measured against the stated

specific objectives. Performance denotes "attainment", which draws on a variety of mental processes, including memory, perception, thinking and reasoning (Fan, 2008). Morgan (2010) added that Academic Performance is an assessment strategy by which the evidence about students learning is gathered, through students work on a performed task. There is no doubt that much is expected from our educational system in terms of preparing future citizens, workers, and leaders to perform better. David (2007) defined Academic Performance in three categories to include:

***1) Cognitive Skills and Attitudes***

Cognitive skills and attitudes include both basic cognitive abilities, such as executive functioning, attention, memory, verbal comprehension, and information processing, as well as attitudes and beliefs that influence academic performance, such as motivation, self-concept, satisfaction, and school connectedness. Studies used a range of measures to define and describe these constructs.

***2) Academic Behaviours***

Academic behaviours include a range of behaviours that may have an impact on students' academic performance. Common indicators include on-task behaviour, organization, planning, attendance, scheduling, and impulse control. Studies used a range of measures to define and describe these constructs.

***3) Academic Achievement***

Academic achievement includes standardized test scores in subject areas such as reading, math, and language arts; GPAs; classroom test scores; and other formal assessments. Therefore, Performance in school is evaluated in a number of ways. For regular grading, students demonstrate their knowledge by taking written and oral tests, performing

presentations, turning in homework and participating in class activities and discussions. Teachers evaluate in the form of letter or number grades and side notes, to describe how well a student has done. At the state level, students are evaluated by their performance on standardized tests geared toward specific ages and based on a set of achievements students in each age group are expected to meet. Some factors that influences students' Academic Performance includes:

**1. Teaching Methods**

The primary educational goal for teaching every subject is to teach students both theoretical and practical aspect of the subject Ola (2004). When teaching, there are assortments of styles and methods a teacher may choose from. These methods are ways of organizing and presenting learning experiences to children (Ubah, 2004). The style ranges from a direct teacher-centered approach, to an indirect more student-centered approach. As opined by Tunde (2005) the student-centered teaching method is more time-consuming and requires more preparation by the teacher, however the benefit to be gained from this method is definitely worth the extra time spent in developing the lessons. Teaching method is the first step to improving the level of students' performance.

**2. The teachers Qualification**

In order for students' performance to improve, the teachers' qualification has to be improved; he should therefore undergo series of training in order to become comfortable and successful in teaching and using suitable methods. This cannot be done without substantial practice on the part of the teacher. What a teacher does or does not do, makes a whole lot of difference in whether or not students

will learn effectively. Adesola (2005) found out that the level of available resource is indeed a plus to the teachers and goes to show the level of genuity and commitment of the teachers toward effective delivery of lesson. He also documents that teacher qualification accounted for approximately 40 to 60 percent of the variance in average of students' achievement in assessment. Akinsolu, (2010) asserted that availability of qualified teachers influences the performance of students in schools.The teacher therefore holds the key to influencing students' performance.

**3. School environment**

This is an important factor that influences students' performance. Bandele (2003) noted that the importance of physical facilities cannot be relegated. Facilities like modern laboratories, libraries and classrooms are to be put in place in all our schools. Schools are established for the purpose of teaching and learning. Many educationists, ecologist and sociologist opined that a student performance depends more on school quality, than home background. Karemera, (2003) found that students' performance is significantly correlated with satisfaction with academic environment and service received. It is also more important that the teachers and learners are properly accommodated to facilitate the teaching and learning that go on there (Alimi, 2004). Akinfolarin (2008) identified facilities as a major factor contributing to academic performance in the schools system. These include classroom furniture, recreational equipment among others. Favorable school condition could therefore enable most students to learn well and to get satisfaction from their learning.

**4. Instructional materials**

Instructional materials irrespective of the subject they are used for as aids are always available in different forms. According to Olaitan and Agusiobo (2001) instructional materials are of four main types which include audio-visual aids, visual aids, audio aids and simulated devices. These materials are needed in schools for effective operations of the system, and for the enhancement of teaching and learning in order to improve students' performance.

Edwin, (2011) opined that the right methods of teaching and instructional materials should be used in impacting knowledge also teachers have to be motivated and evaluated in order for them to motivate and evaluate students academically so as to solve most of the problem faced by schools thereby increasing students level of academic performance.

## 2.6 Empirical Studies

For the purpose of this study, the following empirical studies were reviewed:

Raymond and Ogunbameru (2005) carried out a study on ''A Comparative Analysis of two Methods of Teaching Financial Accounting at Senior Secondary School in Ondo State''. The population of the study comprised of 820 students in Okiti-pupa Local Government Area in Ondo State, offering Financial Accounting in the secondary schools. SS2 students were randomly chosen for the study. Four research questions were raised and four null hypotheses were formulated. The research adopted quasi experimental pre-test post-test control group design with randomization. Data was collected and the result was analyzed at the alpha level of 0.05 using t-test/z-test as the main statistical tool.

The result showed that the use of guided discovery method in place of conventional method improved student's performance in Financial Accounting. It was concluded that guided-discovery teaching method is very effective in teaching financial accounting. The researcher observed that the sample populations of four schools selected were too many due to the fact that it was an experimental research. It would be difficult to control the extraneous variables. Nevertheless the present study is related to the previous study because t-test statistic was used, but different because of the level that was used which was senior secondary two (SS2).

Prince (2006) carried out a research on ''the relevance of guided-discovery and exposition teaching methods on skill acquisition in teaching financial accounting in commercial colleges in Anambra State''. The objective of the study was to find out the measures of improving students' skill acquisition through effective use of guided discovery and expository teaching in training students. It was also aimed at finding out problems in teaching and learning accounting in commercial colleges in Anambra State. The population consisted of 220 students in Commercial Colleges in Anambra State, and a sample of ninety (90) students was used. Four research questions were raised and four null hypotheses were formulated. Quasi experimental pre-test post-test control group design was adopted for the study.

After four weeks (4) of treatments, a test was conducted and the results were analyzed at the (α) alpha level of 0.05, using t-test statistical method. The study revealed that students cram facts and principles, most of which they don't understand, only to regurgitate during examinations. It was concluded that guide-discovery and exposition teaching methods are effective in skill acquisition. Based on the findings,

recommendations were given/made to the government, school authorities, lecturers and students, so students who pass through the department will achieve higher skill acquisition in the subject. Nevertheless, the previous study is related to the present study because of the teaching method used, which is experimental in nature, but different because it emphasizes on skill acquisition rather than academic performance.

Musa (2007) conducted a research work; to determine ‘‘the effectiveness of Game Simulation and Demonstration Method of Teaching on Academic Skills of Senior Secondary School Home Economics Students, in Kano State’’. The objective of the study was to determine the difference in academic skill acquisition between students taught with demonstration and those taught with game simulation method. The research adopted the quasi experimental design and the population of the study was five hundred and sixty (560) students from some selected senior secondary schools in Kano State. Four research questions were raised and four null hypotheses were formulated. Data through the use of teacher-made test were administered to these students as pre-test and post-test, before and after treatment.

The data collected were subjected to the ANOVA statistical analysis and t-test to determine the level of the significant difference. The result of the findings showed that game simulation and demonstration teaching methods are particularly effective in teaching home economies in Kano State. It was concluded that students learn more when their interest is stimulated through activity learning. The researcher made some recommendations such as, both methods should be involved in teaching because of the playful attitudes of students will help to transform their nature into a meaningful learning environment. This present Study is similar to the past study in the sense that

demonstration teaching method was also adopted and different because of the subject used for the study.

Sanusi (2007) conducted a research work to determine ‘‘the relevance of guided-discovery and demonstration methods on students’ achievement in Physics in senior secondary schools in Kano state’’. The objective of the study was to determine the difference in achievement between students taught with guided-discovery and demonstration method of teaching. The design used in the study was quasi experimental pre-test post-test control group design with randomization. The population of the study was eight hundred and three (803) students offering Physics in Private Senior Secondary Schools in Kano state. Four research questions were raised and three null hypotheses were formulated. Data through the use of teacher-made test were administered to students as pre-test and post-test treatments.

The data collected were subjected to analysis of variance (ANOVA), based on this all the three null hypotheses were rejected. The finding obtained among others was that students in demonstration group had a higher mean score than those in the guided-discovery group. It was concluded that demonstration teaching method was more effective than the guided-discovery teaching method in teaching physics. The researcher made some recommendations which include that, both methods should be used in teaching because they make students develop principles of observation, inquiry and group work. The present study is similar to the past study in the sense that demonstration and guided-discovery teaching methods were used to teach senior secondary school students, but different in terms of the subject taught.

Umar (2010) carried out a research on the ‘‘comparative analysis of exposition and inquiry methods of teaching and learning Financial Accounting in senior secondary schools in Kaduna state’’. The objective of the study was to determine the level of performance on students pre-test and post-test mean achievement scores in both experimental and control groups. The research was also conducted to determine the level of mean performance in Financial Accounting by students taught using both methods. The population of the study consisted of one hundred and eighty-seven (187) senior secondary II Financial Accounting students in eight (8) private schools in Zaria metropolis. Four (4) null hypotheses were formulated which included: (There was no significant difference in the students mean achievement score of both experimental and controlled group. There was no significant difference in the mean achievement scores of students taught with the exposition teaching and those taught with inquiry teaching method. There was no significant difference in the mean performance scores of male and female students taught with only expository teaching methods. There is no significance difference in the mean performance scores of male and female students taught with only inquiry teaching method), and on the basis of these null hypotheses, data through a validated practical skill competence scale was used to collect data.

The data collected from both groups were subjected to the t-test/z-test statistics to determine the significant difference in the mean performance of students in Financial Accounting, taught with Expository and Inquiry Teaching methods. The null hypotheses were tested at 0.05 probability level using two instruments, Financial Accounting achievement test 1 (FAAT-1) and Financial Accounting evaluation test 2 (FAET-2). The findings of the study revealed that students performed better in the post-test than the pre-

test. It was concluded that the pre-test and post-test difference in mean performance of students in financial accounting was significant. Based on the findings, recommendations were made as to the proper application of learning strategies and theories by teachers in using any type of teaching method, also students should be motivated by their teachers to develop interest in accounting. The study was obviously in line and in agreement with the researcher's work, because it focused on teaching Senior Secondary School Students Financial Accounting, but different because it adopted Exposition and Inquiry teaching methods.

Mutuah (2014) carried out a research on ''the effects of cooperative learning, problem-solving and strategies on junior secondary school students performance in business studies in Kaduna state''. The objective of the study was to determine the effects of cooperative learning, problem-solving and strategies on junior secondary school student's performance in business studies in Kaduna state. The population of the study was 39,227 and the sample size was 270. Six research questions were raised and six null hypotheses were formulated. The instrument used in collecting data was standardized business achievement test (SBAT). Data collected from the study was statistically analyzed using mean, standard error and standard deviation for the research questions, and the null hypotheses were tested using independent t-test at 0.05 level of significance.

One of the findings revealed that there was significant difference between the mean performances of students taught business studies using cooperative learning than those using lecture strategies, it was concluded that cooperative learning strategy was the most effective method in teaching business studies in junior secondary schools. The recommendation was that teachers should help students along the road to independent

learning. The previous study is similar to the present study because it made use if independent t-test in analyzing the data, but different because of the level which was junior secondary schools, and the subject which was business studies.

## 2.7 Summary of the Literature Reviewed

The review of literature was done to provide the researcher with guidance to arrive at a theoretical and empirical framework for this study. The theoretical review brought to the fore the concept of teaching and the roles teaching performs which include; to make knowledge possible as well as increase the odds that potential learners would learn. Varieties of teaching methods available in teaching were identified in the review which includes: lecture method, discussion method, demonstration method, guided-discovery method and project method. These teaching methods mentioned are basically grouped into two approaches: the child centered approach and the teacher centered approach, both of which contribute their own ideas to learning.

In selecting the appropriate teaching method in teaching Financial Accounting, there are no preferred methods, rather the choice of methods to be used in teaching Accounting depends on several factors which includes: the aims and objective, the age of the learners, and the topic. Without the use of formats, proper guidance as well as thorough explanation, the use of guided-discovery and demonstration methods of teaching accounting won't be effective, and the application of accounting procedure wouldn't be properly achieved, thereby leading to poor performance in the subject.

Finally, the empirical studies concentrated on other areas in Nigeria which have similar characteristics and background when compared with Kaduna state. None of the related empirical studies reviewed, stated which teaching method is most appropriate in

teaching financial accounting to the male and female students. However, this study sets out to bridge this existing gap by emphasizing the teaching that is most suitable for teaching male and female students.

# CHAPTER THREE
# RESEARCH DESIGN AND METHODOLOGY

This chapter discussed the research design and methodology used in this study, under the following sub-headings:

3.1 Research Design

3.2 Population for the Study

3.3 Sample Size and sample procedure

3.4 Instrument for Data Collection

3.4.1 Validity of the Instrument

3.4.2 Pilot Study

3.4.3 Reliability of the Research Instrument

3.5 Procedure for Data Collection

3.6 Procedure for Data Analysis

## 3.1 Research Design

The design used in this study was quasi-experimental research design. The design involved the manipulation of independent variables (guided-discovery and demonstration teaching methods), control of extraneous variables, the use of control and treatment groups and the measure of dependent variable (students' academic performance). The design according to Olayiwola (2007) allows randomization of treatments and also provides some degree of control for possible extraneous variables that might pose a threat to the internal and external validity or both.

## 3.2 Population for the Study

The population of this study comprised of Two Hundred and Forty Eight students (248). This consists of all students offering financial accounting in senior secondary

classes in Federal Government colleges, Kaduna state as of 2013 session. Senior secondary students were considered for this research work because financial accounting is offered at senior secondary classes. The breakdown of the population is as presented in Table 3.1.

**Table 3.1: Population for the Study**

| S/N | CLASSES | FGCK | FGGCZ | NO, OF STUDENTS |
|---|---|---|---|---|
| 1. | Senior Secondary One | 48 | 40 | 88 |
| 2. | Senior Secondary Two | 45 | 45 | 90 |
| 3. | Senior Secondary Three | 38 | 32 | 70 |
| | **TOTAL** | **131** | **117** | **248** |

**Source**: School Record for Federal Government College, Kaduna State (2013)

### 3.3 Sample Size and Sampling Procedure

The sample comprised of Forty Eight (48). The (48) students were selected from Federal Government college, Kaduna State using purposive sampling because the school comprises male and female students. Purposive sampling was also used in selecting the entire Forty-Eight (48) students in their intact class studying financial accounting in senior secondary one (SS1) in Federal Government college, Kaduna State. The sample was made up of Twenty-one (21) male and Twenty-seven (27) female students as shown in table 3.2. The experiment had three groups namely experimental group one, experimental group two and the control group. Random assignment of students into these three groups was done by writing each student name on a piece of paper, which was squeezed and randomly put into three boxes representing guided-discovery,

demonstration and lecture teaching methods. Each of the three boxes contained sixteen (16) pieces of paper for a total of forty-eight pieces of paper, which was on purpose. The breakdown of the sample is as presented in table 3.1.

**Table 3.2: sampled size**

| S/N | NAME OF SCHOOL | NO OF SS1 STUDENTS | | | TOTAL |
|---|---|---|---|---|---|
| | | EXP GRP (1) | EXP GRP (2) | CONT GRP | |
| | | MALE- FEMALE | MALE- FEMALE | MALE - FEMALE | |
| 1. | FGC, KADUNA | 7 – 9 | 8 - 8 | 6 - 10 | |
| | **TOTAL** | **16** | **16** | **16** | **48** |

### 3.4 Instrument for Data Collection

In order to generate a relevant and reliable data for this study, Financial Accounting Achievement Test One (FAAT-1) served as the pre-test, which was primarily meant to find out the level of students knowledge before the experiment. The pre-test instrument contained twenty (20) objective questions selected from WAEC and NECO past examinations from the years (2005 to 2010), with four options and only one correct answer. Each question carried three marks making a total of sixty marks {see Appendix II}.

Financial Accounting Evaluation Test-two (FAET-2) served as the post-test, which was used in answering the research question and testing the null hypotheses. The instrument was obtained from WAEC and NECO past examinations from the years (2005 to 2010). The Post-test instrument was divided into sections ‘A’ and ‘B’. Section ‘A’ contained twenty (20) objective questions with four (4) options of one correct answer, while section ‘B’ contained one (1) practical question {See appendix IV}. Each correct

entry was scored one (1) mark and each correct balance was also scored one (1) mark. All the questions were developed in relation to the research question.

### 3.4.1 Validation of the instrument

For the content validity of this test instrument, standardized questions were selected from WAEC and NECO past examinations from the years (2005 to 2010) and were given to three Experts in Department of Vocational Education, Madonna University; Anambra State. This was done to ensure that the questions were clear, relevant, unambiguous and related to the topic to be taught, which is Final Accounts of a Sole Trader. Corrections and suggestions were incorporated in the final copy.

### 3.4.2 Pilot study

A pilot study was conducted in Therbow Secondary School, Zaria using (30) thirty students fifteen (15) boys and fifteen (15) girls offering Financial Accounting in (SS1) Senior Secondary One, for a period of (90) minutes. This school was deemed fit for the pilot study because it does not form part of the population for the study, and it has similar characteristics and similarities with the study area. The thirty students were divided equally into three groups, namely experimental group one, experimental group two and control group, representing guided-discovery, demonstration and lecture teaching methods respectively. Students in experimental group one were exposed to an instructional package based on guided-discovery teaching method, those that fell under the experimental group two were exposed to instructional package based on demonstration teaching method, and the control group was exposed to instructional package based on lecture teaching method. After the treatment, the test instrument was

administered to the three groups. The scripts were collected at the end of the test, marked and scored and the result gotten was used to test the reliability of the instrument.

### 3.4.3 Reliability of the Instrument.

The data collected from the pilot study was subjected to statistical analysis using Pearson Product Moment Correlation Co-efficient. The split-half method was used, where the instrument was divided into two halves of 'odd' and 'even' numbers. A reliability co-efficient of 0.73 was obtained, which is in line with Olayiwola (2007) a reliability co-efficient of 0.5 and above is adequate and the instrument for which it is calculated is reliable. Therefore this test instrument was termed as reliable.

## 3.5 Procedure for Data Collection

The researcher obtained an Introduction letter from the Department of Vocational and Technical Education, Ahmadu Bello University; Zaria {see Appendix I for details} the letter was sent to Federal Government College; Kaduna. Four weeks were used in collecting data for this study during which the topic Final Accounts of a Sole Trader was covered, and this was made possible with the aid of a detailed lesson plan on final accounts of a sole trader {see Appendix VIII for details}. A total of three groups were used in collecting data for the study namely experimental group one, experimental group two and the control group, representing guided-discovery, demonstration and lecture teaching methods respectively. The three groups were experimented upon by the researcher once a week for a period of forty-five minutes, making a total of twelve visits in which the experiment was carried out.

The first week involved assigning the forty-eight students into three groups to represent each teaching method with the use of random assignment. This was done by

writing each of their names on a piece of paper, which was squeezed and randomly thrown into three boxes representing guided-discovery, demonstration and lecture teaching methods. Each of the three boxes contained sixteen (16) pieces of paper purposively. After the selection, the researcher then administered the Pre-test instrument to each group {see Appendix II for details}. The pre-test was primarily meant to find out the level of students knowledge before the experiment. After the pre-test was successfully concluded, the researcher introduced the topic; final account of a sole trader to each group.

During the second and third week, students that fell under the experimental group one were exposed to an instructional package based on guided-discovery teaching method, those that fell under the experimental group two was exposed to instructional package based on demonstration teaching method, and the control group was exposed to instructional package based on lecture teaching method, each group was therefore experimented upon once a week. The last week of the experiment was used by the researcher to administer the Post-test instrument {see appendix IV for details} to the three groups for a period of forty-five minutes per group. The post-test instrument was marked and scored, and the results were used in answering the research question and testing the null hypotheses.

### 3.6 Procedure for Data Analysis

Data generated for this study from the Post-test instrument was computed to ascertain the differences in the mean results of teaching methods on student's academic performance. The mean, standard deviation and standard error were the statistical tools used in analyzing the data collected from Federal Government College, Kaduna State so

as to effectively answer all the Research Questions. Independent t-test statistic was used to test the five null hypotheses. All null hypotheses were tested at an alpha level of 0.05 (P = 0.05) in order to either accept or reject the hypotheses. According to Frank (2005) since the t-test statistic is a non-parametric tool and does not require assumptions, it is therefore imperative in testing the null hypotheses.

Decision Rule:

Research question: any mean between 50% and above indicated high performance, while any mean of below 50% indicated low performance.

Null hypotheses: If the calculated value of the t-test is greater than the critical value of the t-test, the null hypothesis was rejected otherwise it was retained.

# CHAPTER FOUR
# DATA PRESENTATION AND ANALYSIS

This chapter presents the statistical analysis carried out in the study. The Statistical package IBM version 20 was used for the analysis. The first section analyses the presentation of the analyses of bio-data of respondents using frequencies and percentages distribution by gender, and treatment groups. The second section presents the research questions using comparative mean on academic performance in accounting. The research hypotheses were tested using the independent t test statistics at 0.05 alpha level of significance. The summary of major findings was also presented at the end of the chapter.

## 4.1 Analyses of Biodata of Respondents

**Table 4.1: Distribution of respondents by gender**

| Gender | Frequency | Percent |
|---|---|---|
| Male | 21 | 43.8 |
| Female | 27 | 56.3 |
| Total | 48 | 100.0 |

On the sex of the respondents, a total of 21 representing 43.8% of them are males while the remaining 27 representing 56.3% are females. This implies that both male and female students are reasonably well represented in this study.

## 4.2 Answers to Research Questions

**Research question one:** *What is the effect of guided-discovery teaching Method on students' academic performance in financial accounting in Federal Government Colleges, Kaduna State?*

The table below provides summary of data used in answering research question one above.

Table 4.2.1: Mean, Standard Deviation and Standard error for Analysis of Research Question One.

| **Teaching Methods** | **N** | **$\bar{X}$** | **SD** | **SE** | **Decision** |
|---|---|---|---|---|---|
| Lecture teaching Method | 16 | 36.4375 | 10.4305 | 2.6076 | Guided-discovery teaching method affected students' academic performance. |
| Guided-discovery teaching method | 16 | 75.7500 | 12.4123 | 3.1030 | |
| | 32 | | | | |

Source: Field Survey, 2013

The data presented in table 4.2.1 shows that guided-discovery teaching method has a higher mean score on student's academic performance in financial accounting in Federal Government Colleges, Kaduna State than the lecture teaching method. The calculated mean academic performance scores were 36.4375 and 75.7500 by students taught using lecture teaching method and those taught with using guided-discovery teaching method respectively. Implying that students' mean score in guided-discovery teaching method was above average, which indicates high performance, whereas students' mean score in lecture teaching method was below average, which indicates low performance.

**Research Question two:** *What is the effect of Demonstration teaching Method on students' academic performance in financial accounting in Federal Government Colleges, Kaduna State?*

The table below provides summary of data used in answering research question two above.

Table 4.2.2: Mean, Standard Deviation and Standard error for Analysis of Research Question Two

| **Teaching Methods** | **N** | **$\bar{X}$** | **SD** | **SE** | **Decision** |
|---|---|---|---|---|---|
| Lecture teaching method | 16 | 36.4375 | 10.43052 | 2.60763 | Demonstration teaching method affected students' academic performance. |
| Demonstration method | 16 | 66.9375 | 17.88284 | 4.47071 | |
| | 32 | | | | |

Source: Field Survey, 2013

The data presented in table 4.2.2 shows that demonstration teaching method has a higher mean score on student's academic performance in financial accounting in Federal Government Colleges, Kaduna State than the lecture teaching method. The calculated mean academic performance scores were 36.4375 and 66.9375 by students taught using lecture teaching method and those taught using demonstration teaching method respectively. Implying that students' mean score in demonstration teaching method was above average, which indicates high performance, and that students' mean score in lecture teaching method was below average, which indicates low performance.

**Research question Three:** *What is the mean difference between the academic performance of students' taught financial accounting using guided-discovery teaching method, and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State?*

The table below provides summary of data used in answering research question three above.

Table 4.2.3: Mean, Standard Deviation and Standard error for Analysis of Research Question Three.

| **Teaching Methods** | **N** | **- X** | **SD** | **SE** | **Decision** |
|---|---|---|---|---|---|
| Guided Discovery Teaching Method | 16 | 75.7500 | 12.41236 | 3.1030 | Guided-discovery and demonstration teaching methods affected students' academic performance. |
| Demonstration Teaching Method | 16 | 66.9375 | 17.88284 | 4.4707 | |
| | 32 | | | | |

Source: Field Survey, 2013

The data presented in table 4.2.3 shows that guided-discovery teaching method have a higher mean score on student's academic performance in financial accounting in Federal Government Colleges, Kaduna State than demonstration teaching method with a mean difference of 8.8125. Their calculated mean academic performance scores were

75.7500 and 66.9375 by students taught with guided-discovery teaching method and those taught with demonstration teaching method respectively. Students' mean scores in guided-discovery and demonstration teaching methods were above average, which indicates high performance.

**Research Question Four:** *What is the mean difference between the academic performance of male students' taught financial accounting using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State?*

The table below provides summary of data used in answering research question four above.

Table 4.2.4: Mean, Standard Deviation and Standard error for Analysis of Research Question Four.

| **Teaching Methods of male students** | **N** | $\bar{X}$ | **SD** | **SD** | **Decision** |
|---|---|---|---|---|---|
| Guided Discovery Method | 7 | 72.857 | 14.076 | 5.320 | Guided-discovery and demonstration teaching methods affected the academic performance of male students |
| Demonstration method | 8 | 73.375 | 18.500 | 6.540 | |
| | 15 | | | | |

Source: Field Survey, 2013

The data presented in table 4.2.4 shows that male students' mean academic performance score in demonstration teaching method was slightly higher than male students' mean academic performance score in guided-discovery teaching method with a mean difference of 0.518 in financial accounting in Federal Government Colleges, Kaduna State. The calculated mean academic performance score of male students was 72.857 using guided-discovery teaching method and 73.375 using demonstration teaching method. Therefore the male students taught using demonstration teaching method

performed better than the male students taught using guided-discovery teaching method. This implies that Students' mean scores in guided-discovery and demonstration teaching methods were above average, which indicates high performance.

**Research Question Five:** *What is the mean difference between the academic performance of female students' taught financial accounting using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State?*

Table 4.2.5: Mean, Standard Deviation and Standard error for Analysis of Research Question Five.

| **Teaching Methods of female students** | **N** | **$\bar{X}$** | **SD** | **SE** | **Decision** |
|---|---|---|---|---|---|
| Guided Discovery Method | 9 | 78.000 | 11.280 | 3.760 | Guided-discovery teaching method affected the academic performance of female students |
| Demonstration method | 8 | 60.500 | 15.757 | 5.570 | |
| | 17 | | | | |

Source: Field Survey, 2013

The data presented in table 4.2.5 shows that female students' mean academic performance score in guided-discovery teaching method was higher than female students' mean academic performance score in demonstration teaching method with a mean difference of 17.5 in financial accounting in Federal Government Colleges, Kaduna State. The calculated mean academic performance score of female students' was 78.000 using guided-discovery teaching method and 60.500 using demonstration teaching method. Therefore the female students taught using guided-discovery teaching method performed better than the female students taught using demonstration teaching method. This implies

that Students' mean scores in guided-discovery and demonstration teaching methods were above average, which indicates high performance.

### 4.3 Test of Research Hypotheses

In pursuance of the objectives of this study and to provide statistical solutions to the research question raised, the null hypotheses were tested at 0.05 level of significance and results were interpreted. Independent t-test was therefore used for the null hypotheses because it enables the t-calculated value to be compared with t-critical value which indicates agreement or differences.

The result of the tests is as summarized in tables 4.3.1 to 4.3.5.

**Null Hypothesis One**: *Guided-discovery teaching Method has no significant effect on students' academic performance in financial accounting in Federal Government Colleges, Kaduna State*

***Justification for statistical technique: The Independent t-test sample statistic is used to test this hypothesis because the computed test quantitative variable of Mean academic performance (dependent variable) is being answered by two different groups of respondents of lecture and Discovery method groups (Factor/independent variable)***

Table 4.3.1: Test of Null Hypothesis One

| **Teaching Methods** | **N** | **$\bar{X}$** | **SD** | **SD** | **Df** | **T Cal** | **t crit** | **Sig (p)** |
|---|---|---|---|---|---|---|---|---|
| Lecture method | 16 | 36.4375 | 10.4305 | 2.6076 | | | | |
| Guided-Discovery Method | 16 | 75.7500 | 12.4123 | 3.1030 | **30** | 9.699 | 1.96 | 0. 000 |
| | 32 | | | | | | | |

Source: Field Survey, 2013

Results of the above independent t-test statistic showed that guided-discovery teaching method has significant effect on student's academic performance in financial accounting in Federal Government Colleges, Kaduna State. Reason being the that the calculated p value of 0.000 is lower than the 0.05 level of significance while the calculated t value of 9.699 is higher than the 1.96 critical t value at df 30. Their

calculated mean academic performance scores were 36.4375 and 75.7500 by students taught with lecture teaching method and those taught with guided-discovery teaching method respectively, implying that student taught with guided discovery teaching method have significantly higher academic performance than their counterparts taught with lecture teaching method. Therefore, the null hypothesis which states that guided-discovery teaching method has no significant effect on student's academic performance in Federal Government Colleges, Kaduna State, is hereby rejected.

**Null Hypothesis Two:** *Demonstration teaching method has no significant effect on students' academic performance in financial accounting in Federal Government Colleges, Kaduna State*

***Justification for statistical technique: The Independent t-test sample statistic is used to test this hypothesis because the computed test quantitative variable of Mean academic performance (dependent variable) is being answered by two different groups of respondents of lecture and Demonstration method groups (Factor/independent) variable)***

Table 4.3.2: Test of Null Hypothesis Two.

| **Teaching Methods** | **N** | **$\bar{X}$** | **SD** | **SE** | **Df** | **T Cal** | **t crit** | **Sig (p)** |
|---|---|---|---|---|---|---|---|---|
| Lecture method | 16 | 36.4375 | 10.43052 | 2.60763 | | | | |
| Demonstration method | 16 | 66.9375 | 17.88284 | 4.47071 | **30** | 5.893 | 1.96 | 0. 000 |
| | 32 | | | | | | | |

Source: Field Survey, 2013

Results of the above independent t-test statistic shows that demonstration teaching method has significant effect on student's academic performance in financial accounting in Federal Government Colleges, Kaduna State. Reason being the that the calculated p value of 0.000 is lower than the 0.05 level of significance while the calculated t value of 5.893 is higher than the 1.96 critical t value at df 30. Their calculated mean academic performance scores were 36.4375 and 66.9375 by students taught with lecture

teaching method and those taught with Demonstration teaching method respectively, implying that student taught with Demonstration teaching method have significantly higher academic performance than their counterparts taught with lecture teaching method. Therefore, the null hypothesis which states that demonstration teaching method has no significant effect on student's academic performance in financial accounting in Federal Government Colleges, Kaduna State, is hereby rejected.

**Null Hypothesis Three:** *there is no significant mean difference between the academic performance of students' taught financial accounting using guided-discovery teaching method, and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State*

***Justification for statistical technique: The Independent t-test sample statistics is used to test this hypothesis because the computed test quantitative variable of Mean academic performance (dependent variable) is being answered by two different groups of respondents of Demonstration and Discovery method groups (Factor/independent) variable)***

Table 4.3.3: Test of Null Hypothesis Three .

| **Teaching Methods** | **N** | **$\bar{X}$** | **SD** | **SE** | **Df** | **T Cal** | **t crit** | **Sig (p)** |
|---|---|---|---|---|---|---|---|---|
| Guided-Discovery Method | 16 | 75.7500 | 12.4123 | 3.1030 | | | | |
| Demonstration method | 16 | 66.9375 | 17.8828 | 4.4707 | **30** | 1.619 | 1.96 | 0. 116 |
| | 32 | | | | | | | |

Source: Field Survey, 2013

Results of the above independent t-test statistic shows that there is no significant difference in the academic performance of students' taught financial accounting using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State. Reason being the fact that the calculated p value of 0.116 is higher than the 0.05 level of significance while the calculated t value of 1.619 is lower than the 1.96 critical t value at df 30. Their calculated mean academic performance scores were 75.7500 and 66.9375 by students' taught with guided-discovery

teaching method and those taught with demonstration teaching method respectively, implying that even though students taught with guided-discovery teaching method have higher academic performance than those taught with demonstration teaching method, this significant difference is not significant. Therefore, the null hypothesis which states that there is no significant difference in the academic performance of students' taught with guided-discovery teaching method and demonstration teaching method in Federal Government Colleges, Kaduna State is hereby retained.

**Null Hypothesis Four:** *There is no significant mean difference in the academic performance of male students' when taught using guided discovery and those taught using demonstration teaching methods in Federal Government Colleges, Kaduna State*.

***Justification for statistical technique: The Independent t-test sample statistic is used to test this hypothesis because the computed test quantitative variable of male Mean academic performance (dependent variable) is being answered by two different groups of respondents of males in guided discovery and males in demonstration method groups ( Factor/independent variable)***

Table 4.3.4: Test of Null Hypothesis Four

| **Teaching Methods of male students** | **N** | **$\bar{X}$** | **SD** | **SE** | **Df** | **T Cal** | **t crit** | **Sig (p)** |
|---|---|---|---|---|---|---|---|---|
| Guided-Discovery Method | 7 | 72.857 | 14.076 | 5.320 | | | | |
| Demonstration method | 8 | 73.375 | 18.500 | 6.540 | **13** | .060 | 1.96 | 0. 953 |
| | 15 | | | | | | | |

Source: Field Survey, 2013

Results of the above independent t-test statistic shows that there is no significant difference in the academic performance of male students' taught financial accounting using guided-discovery and those male students' taught using demonstration teaching methods. Reason being the fact that the calculated p value of 0.953 is higher than the 0.05 level of significance while the calculated t value of 0.060 is lower than the 1.96 critical t value at df 13. The calculated mean academic performance of the male students' scores were 72.857 and 73.375 by male students taught with guided-

discovery teaching method and those males taught with demonstration teaching method respectively, implying that even though male students' taught with demonstration teaching method have higher academic performance than those male students' taught with guided-discovery teaching method, the mean difference is not significant. Therefore, the null hypothesis which states that there is no significant difference in the academic performance of male students' taught financial accounting using guided-discovery teaching method and male students' taught financial accounting using demonstration teaching method in Federal Government Colleges, Kaduna State, is hereby retained.

**Null Hypothesis FIVE:** *there is no significant mean difference between the academic performance of female students' taught financial accounting using guided-discovery teaching method, and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State***:**

***Justification for statistical technique: The Independent t-test sample statistics is used to test this hypothesis because the computed test quantitative variable of female Mean academic performance (dependent variable) is being answered by two different groups of respondents of females in guided discovery and males in demonstration method groups( Factor/independent variable).***

Table 4.3.5: Testing Null Hypothesis Five

| **Teaching Methods of female students** | **N** | **$\bar{X}$** | **SD** | **SE** | **Df** | **T Cal** | **t crit** | **Sig (p)** |
|---|---|---|---|---|---|---|---|---|
| Guided Discovery Method | 9 | 78.000 | 11.280 | 3.760 | | | | |
| | | | | | **15** | 2.657 | 1.96 | 0.018 |
| Demonstration method | 8 | 60.500 | 15.757 | 5.570 | | | | |
| | 17 | | | | | | | |

Source: Field Survey, 2013

Results of the above independent t-test statistic shows that significant difference exist in the academic performance of female students' taught financial accounting using

guided-discovery teaching method and those taught using demonstration teaching method. Reason being that the calculated p value of 0.018 is lower than the 0.05 level of significance while the calculated t value of 2.657 is higher than the 1.96 critical t value at df 15. The calculated mean academic performance of the female students scores were 78.000 and 60.500 by female students' taught using guided-discovery teaching method and those taught using demonstration teaching method respectively, female students taught financial accounting using guided-discovery teaching method has significantly higher academic performance score than those taught using demonstration teaching method. Therefore, the null hypothesis which states that there is no significant difference in the academic performance of female students' taught financial accounting with guided-discovery teaching method and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State is hereby rejected.

### 4.4 Summary of the major findings

The study established that:

1. Guided-discovery teaching method has a significant effect on students' academic performance in financial accounting in Federal Government colleges, Kaduna State. (P= 0.000).
2. Demonstration teaching method has a significant effect on students' academic performance in Federal Government colleges, Kaduna State. (P=0.000).
3. There is no significant difference in the academic performance of students' taught financial account using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government colleges, Kaduna State. (P=0.116)
4. There is no significant difference in the academic performance of male students' taught financial accounting using guided-discovery teaching method and those

taught using demonstration teaching method in Federal Government Colleges, Kaduna State. (P=0.953).

5. Significant difference exist in the academic performance of female students' taught financial accounting using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State. (P=0.018).

### 4.5. Discussions on Findings

The discussions on findings are presented based on the outcome of the null hypotheses and research questions as they agree or disagreed with already quoted literatures**.**

Results of null hypothesis one and its corresponding research question showed that guided-discovery teaching method has a significant effect on student's academic performance in financial accounting in Federal Government Colleges, Kaduna State. Their calculated mean academic performance scores were 36.4375 and 75.7500 by students' taught with lecture teaching method and those taught with guided Discovery teaching method respectively, implying that student taught with guided-discovery teaching method have significantly higher academic performance than their counterparts taught with lecture teaching method. This necessitated the rejection of the null hypothesis which stated that guided-discovery teaching Method has no significant effect on students' academic performance in financial accounting in Federal Government Colleges, Kaduna State. Similar to the findings of Garuma (2012) which states that guided-discovery teaching method is more effective in improving students achievement followed by

demonstration teaching method while the traditional method is the least effective in teaching secondary school students.

It was discovered from the test of the second null hypothesis and its corresponding research question that demonstration teaching method has a significant effect on students' academic performance in financial accounting in Federal Government Colleges, Kaduna State. This explains why the result of the null hypothesis which states that demonstration teaching method has no significant effect on students' academic performance in Federal Government College, was rejected. Their calculated mean academic performance scores were 36.4375 and 66.9375 by students' taught with lecture teaching method and those taught with Demonstration teaching method respectively, implying that students' taught with demonstration teaching method have significantly higher academic performance than their counterparts taught with lecture teaching method. This is in line with the findings of Lawrence (2012) which states that demonstration method is more effective than the use of lecture method in financial accounting in secondary schools. Dennis (2006) stressed that demonstration invokes much enthusiasm and interest among the pupils, especially as the entire class members are actively involved in watching the teacher and asking questions on some points not clear to them.

The result of the third null hypothesis and its corresponding research question revealed that there is no significant difference in the academic performance of students' taught financial accounting using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State, which led to why this null hypothesis was accepted and retained. Their calculated mean

academic performance scores were 75.7500 and 66.9375 by students taught with guided-discovery teaching method and those taught with demonstration teaching method respectively, implying that even though students taught with guided-discovery teaching method have higher academic performance than those taught with demonstration teaching method, this difference is not significantly and statistically different. Both teaching methods (guided discovery and demonstration methods) are therefore suitable to elicit positive academic performance from students when each or both are used in tandem to teach students. Similar to the findings of Job (2013) which states that guided-discovery and demonstration teaching methods are effective in promoting academic achievement in financial accounting students in secondary schools. Also dissimilar to the finding of Nbina (2013) which stated that guided-discovery teaching method is superior to demonstration teaching in enhancing cognitive achievement in chemistry for all levels.

The fourth null hypothesis considered the use of both teaching methods on males to see if one of the two methods is more suitable for teaching male students or not. It was discovered that there is no significant difference in the academic performance of male students taught financial accounting using guided-discovery and those taught using demonstration teaching methods. Their calculated mean academic performance of the male students scores were 72.857 and 73.375 by male students taught with guided-discovery teaching method and those males taught with Demonstration teaching method respectively, implying that even though male students taught with demonstration teaching method have higher academic performance than those males taught with guided discovery teaching method, the mean difference is not significant. This was the reason why the null hypothesis which state that there is no significant difference in the

academic performance of male students' taught with guided-discovery teaching method and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State, is hereby retained. In conclusion the two methods of guided discovery and demonstration teaching methods are both good for male students' and will obtain almost the same level of academic result from either methods. The findings is in line with the findings of Otero (2012) which states that there is no significant difference between the performance of male students taught financial accounting using guided discovery and those male students taught using demonstration teaching method in secondary schools.

The fifth null hypothesis considered the use of both teaching methods on females to see if one of the two methods is more suitable for teaching female students'. The calculated mean academic performance of the female students' scores were 78.000 and 60.500 by female students' taught with guided-discovery teaching method and those females taught with demonstration teaching method respectively, female students' taught with guided-discovery teaching method has significantly higher academic performance than those females students that were taught using demonstration teaching method. This was why the null hypothesis which states that there is no significant difference in the academic performance of female students taught using guided-discovery teaching method and those taught using demonstration teaching method in financial accounting in Federal Government Colleges, Kaduna State is hereby rejected. This implies that for optimum result from our female students, the use of guided discovery teaching method should be employed in the teaching of the female students. The finding is similar to the finding of Tayo (2011) which states that female students perform significantly better when taught

financial accounting using guided discovery method of teaching than those taught using demonstration method of teaching financial.

Among the three teaching methods compared in this study, guided-discovery teaching method was found to be the best, followed by demonstration teaching method then Lecture teaching method. This implied that guided-discovery teaching method is more effective in teaching financial accounting to both (male and female) students in Federal Government Colleges, Kaduna State. This is in line with the findings of Garuma (2012) which states that guided-discovery teaching method is more effective in improving students achievement followed by demonstration teaching method while the traditional method is the least effective in teaching secondary school students.

# CHAPTER FIVE
# SUMMARY CONCLUSIONS AND RECOMMENDATIONS

This chapter offers Summary of the entire five chapters, conclusions were drawn and recommendations were made, as well as suggestions for further studies.

## 5.1 Summary

The study was carried out to determine the effects of guided-discovery and demonstration teaching methods on academic performance of financial accounting students' in FEDERAL GOVERNMENT colleges, Kaduna State. The major objective of the study was to determine the effects of guided-discovery and demonstration teaching methods on academic performance of financial accounting students' in Federal Government colleges, Kaduna State. In order to achieve the objective of the study, five specific objectives were raised among which was: to determine the effects of Guided-discovery teaching method on students' academic performance in financial accounting in Federal Government colleges, Kaduna State. In line with the objectives, five research questions were formulated, one of which was; what is the effect of guided-discovery teaching method on students' academic performance in financial accounting in Federal Government colleges, Kaduna State? Also, five null hypotheses were postulated, one of which was: Guided-discovery teaching method has no significant effect on students' academic performance in financial accounting in Federal Government Colleges, Kaduna State.

Quasi-experimental research design was used for the study. Two hundred and forty eight (248) students formed the total population of students offering financial accounting in Federal Government Colleges, Kaduna State. Forty-eight students were used as sample for the study. Structured instrument (financial accounting achievement test one and

financial accounting evaluation test two) were used to gather data from the respondents, and were analyzed and presented in tables. Data collected from students' were statistically analyzed using mean, standard deviation and standard error for the research questions. The null hypotheses were tested using independent t test at 0.05 level of significance.

The findings of the study established that:

1. Guided-discovery teaching method has a significant effect on students' academic performance in financial accounting in Federal Government Colleges, Kaduna State. (P= 0.000). Therefore the null hypothesis was rejected.
2. Demonstration teaching method has a significant effect on students' academic performance in Federal Government College, Kaduna State. (P=0.000). Therefore the null hypothesis was rejected.
3. There is no significant difference in the academic performance of students' taught financial account using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State. (P=0.116). Therefore the null hypothesis was retained.
4. There is no significant difference in the academic performance of male students' taught financial accounting using guided-discovery teaching method and those taught using demonstration teaching method in Federal Government Colleges, Kaduna State. (P=0.953). Therefore the null hypothesis was retained.
5. Significant difference exist in the academic performance of female students' taught financial accounting using guided-discovery teaching method and those

taught using demonstration teaching method in Federal Government Colleges, Kaduna State. (P=0.018). Therefore the null hypothesis was rejected.

## 5.2 Conclusion

Based on the findings of the study, it was concluded that male and female students taught financial accounting using guided-discovery and demonstration teaching methods are likely to perform better than those taught using lecture teaching method in financial accounting. Teachers should therefore adopt the use of guided-discovery and demonstration teaching methods to enable students develop interest in accounting, understand the subject better and perform excellent in both internal and external examinations.

## 5.3 Recommendations

The following recommendations are hereby suggested for this study.

1. Teachers should be encouraged to use guided-discovery teaching method in teaching financial accounting. To achieve this, they should be enlightened on the use of guided-discovery teaching method through organized in-service trainings, workshops and seminars. This in turn will boost their level of confidence in using guided discovery as well as other teaching methods to teach financial accounting.
2. The educational agency and school authorities should oversee the effective teaching and learning process of financial accounting in schools, by ensuring that financial accounting is taught with guided-discovery and demonstration teaching methods.
3. Relevant and suitable work books and text books written on (guided-discovery and demonstration teaching methods) should be made available to school libraries

for teachers and students to use, because these methods might fail without the provision instructional materials.

4. Guided-discovery and demonstration teaching methods should be used by teachers in teaching financial accounting to male students, because male students perform better when they can create their own experiences as well as observe and perform a given task.
4. Guided-discovery teaching method should be used by teachers in teaching financial accounting to female students, because female students perform better when they can create their own experience.

## 5.5 Suggestions for further studies

This study is by no mean exhaustive, further studies could be carried out in the relevant fields such as:

1. Effect of inquiry and assignment teaching methods on the academic performance of financial accounting students in secondary schools, kaduna state
2. Effects of demonstration and scaffolding teaching methods on the academic performance of financial accounting students in secondary schools, Kaduna state

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# APPENDIX I

**APPENDIX II**

**PRE-TEST OBJECTIVE QUESTIONS IN FINANCIAL ACCOUNTING**

**COURSE TITLE: FINANCIAL ACCOUNTING**

**TOPIC: TRADING PROFIT AND LOSS ACCOUNT WITH BALANCE SHEET. [FINAL ACCOUNT OF A SOLE TRADER]**

**TIME ALLOWED: 45 MINUTES.**

Class: SSI Accounting students

**Instruction**: Indicate the answer by ticking the correct option, and answer all questions.

**Questions**

1. Which of the following is not a liability?
   (a) Accrued wages [ ]
   (b) Rent arrears [ ]
   (c) Prepayment [ ]
   (d) Insurance due but unpaid [ ]

2. Carriage inwards expenses of a business is treated in?
   (a) Trading account [ ]
   (b) Balance sheet [ ]
   (c) Appropriation account [ ]
   (d) Profit And loss account [ ]

3. A provision is ?
   (a) an amount set out of profit for other uses [ ]
   (b) an amount of loss from trading activities [ ]
   (c) an expense of business to be paid for in cash [ ]
   (d) a loss in value of all business assets [ ]

4. The item carried from trading account to profit and loss account is?
   (a) Opening stock [ ]
   (b) Closing stock [ ]
   (c) Gross profit [ ]
   (d) Capital [ ]

5. The item carried from profit and loss to balance sheet is called?
   (a) Net profit [ ]
   (b) Closing stock [ ]
   (c) Gross profit [ ]
   (d) Sales [ ]

6. An act of recording transactions in books of account is known as?
   (a) Debiting [ ]
   (b) Book-keeping [ ]
   (c) Auditing [ ]
   (d) Crediting [ ]

7. Which of the following is correct about cost of goods sold?
   (a) Opening stock + purchases – closing stock [ ]
   (b) Opening stock + sales – closing stock [ ]
   (c) Opening stock – purchases – closing stock [ ]
   (d) Opening stock + sales + closing stock [ ]

8. Which of the following is charged to trading account?
   (a) Discount allowed [ ]
   (b) Carriage outwards [ ]
   (c) Salaries [ ]
   (d) Carriage inwards [ ]
9. Rent accrued is shown in the balance sheet as?
   (a) Current asset [ ]
   (b) Current liability [ ]
   (c) Long term liability [ ]
   (d) Fixed asset [ ]

10. Prepayment is treaded in the balance sheet of a firm as?
   (a) Fixed asset [ ]
   (b) Long term liability [ ]
   (c) Current asset [ ]
   (d) Current liability [ ]

11. In the balance sheet, the provision for depreciation account is shown as ?
   (a) Addition to fixed asset [ ]
   (b) Deduction from fixed asset [ ]
   (c) Addition to capital [ ]
   (d) Deduction from current liabilities [ ]

12. Fixed asset include?
   (a) Prepayment [ ]
   (b) Accrued experiences [ ]
   (c) Stock [ ]
   (d) Land [ ]

13. The purpose of profit and loss account is to ascertain?
   (a) Sales [ ]
   (b) Opening stock[ ]
   (c) Net profit [ ]
   (d) Purchases [ ]

14. Insurance is an/a?
   (a) Asset [ ]
   (b) Expenses [ ]
   (c) Bad debt [ ]
   (d) Capital [ ]

15. Plant and machinery is an/a?
    (a) Expenses [ ]
    (b) Liability [ ]
    (c) asset [ ]
    (d) Capital [ ]

16. Land is an example of?
    (a) Fixed asset [ ]
    (b) Current asset [ ]
    (c) Capital [ ]
    (d) Liability [ ]

17. Current liability is a /an?
    (a) Liability [ ]
    (b) Drawings [ ]
    ](c) Capital [ ]
    (d) Asset [ ]

18. Drawings is subtracted from

    (a) Capital + net profit [ ]
    (b) Drawing account [ ]
    (c) Capital - net profit [ ]
    (d) Curent asset [ ]

    Use the following informations to answer question 19 and 20

| | |
|---|---|
| Opening stock | N40,000 |
| Purchase | N130,000 |
| Closing stock | N32,000 |
| Sales | N180,000 |

19. What was the cost of goods sold?
    (a) N170,000 [ ]
    (b) N138,000 [ ]
    (c) N130,000 [ ]
    (d) 122,000 [ ]

20. What was the gross profit?
    (a) N58,000 [ ]
    (b) 42,000 [ ]
    (c) N50,000 [ ]
    (d) N10,000 [ ]

## APPENDIX III
## ANSWERS TO THE PRE-TEST OBJECTIVE QUESTIONS

**Answers**

1. C – prepayment
2. A – trading account
3. A – an amount set out of profit for other uses
4. C – gross profit
5. A – net profit
6. B – bookkeeping
7. A – opening stock + purchases – Closing stock
8. D – carriage inwards
9. B – current liability
10. C – Current asset
11. B – deduction from fixed asset
12. D – land
13. C – net profit
14. B – expenses
15. C – asset
16. A fixed asset
17. A – liability
18. A – capital + net profit
19. B – N138,000
20. B N42,000

EACH QUESTION CARRIES THREE MARKS MAKING A TOTAL OF SIXTY MARKS.

**APPENDIX IV**

**POST-TEST QUESTIONS**

**COURSE: FINANCIAL ACCOUNTING**

**TOPIC: FINAL ACCOUNT OF A SOLE TRADER**

**TIME ALLOWED: 45 MINUTES**

Class: SS1 Accounting Students

Instruction: Indicate the answer by ticking the correct option, and answer al questions.

**SECTION A:**

1. If a business man sets aside from his private funds N7,500 for business purposes, the N7,500 would be referred to as?
   (a) Profit [ ]
   (b) Reserve [ ]
   (c) Loan [ ]
   (d) Capital [ ]

2. Drawings account of a sole trader is transferred to the?
   (a) Debit side of the trading account [ ]
   (b) Current liabilities in the balance sheet [ ]
   (c) Current asset in the balance sheet [ ]
   (d) Capital account [ ]

3. Carriage inward is shown on the?
   (a) Credit side of the profit and loss account [ ]
   (b) Credit side of the trading account [ ]
   (c) Debit side of the profit and loss account [ ]
   (d) Debit side of the trading account [ ]

4. Which of the following shows the stock at the end of an accounting period?
   (a) Control account [ ]
   (b) Current liability in the balance sheet [ ]
   (c) Appropriation account [ ]
   (d) Current asset in the balance sheet [ ]

5. Discount allowed is changed to?
   (a) Trading account [ ]
   (b) Appropriation account [ ]
   (c) Balance sheet [ ]
   (d) Profit and loss account[ ]

6. Capital is referred to as the?
   (a) Total of long-term liabilities [ ]
   (b) Total of short-term liabilities [ ]
   (c) Liability of a business [ ]
   (d) Money owed to the company [ ]

7. Carriage outward is an accounting term for an amount spent on?
   (a) Goods purchased [ ]
   (b) Excess stock [ ]
   (c) Goods for production [ ]
   (d) Goods sold [ ]

8. Trading account is usually headed as?
   (a) For ---------- 2010 [ ]
   (b) As ---- 2010 [ ]
   (c) For year ended ----- 2010 [ ]
   (d) As at 2010 [ ]

9. The excess of current assets over current liabilities is?
   (a) Fixed capital [ ]
   (b) Paid up capital [ ]
   (c) Working capital [ ]
   (d) Nominal capital [ ]

10. Which of the following is an asset?
   (a) Provision for debt [ ]
   (b) Rent in arrears [ ]
   (c) Insurance paid [ ]
   (d) Accrued wages [ ]

11. Income received in advance is shown in the balance sheet as?
   (a) Tangible assets [ ]
   (b) Intangible asset [ ]
   (c) Current asset [ ]
   (d) Tangible asset [ ]

12. Debenture is a?
   (a) Current asset [ ]
   (b) Current liability [ ]
   (c) Fixed asset [ ]
   (d) Tangible asset [ ]

13. Expenses incurred but not yet paid is?
   (a) Contingent liability [ ]
   (b) Current liability [ ]
   (c) Current asset [ ]
   (d) Fixed asset [ ]

14. Which of the following assets is not depreciable?:
    (a) Building [ ]
    (b) Land [ ]
    (c) Furniture [ ]
    (d) Tools [ ]

15. Prepayment is shown in the balance sheet as?
    (a) Liability [ ]
    (b) Current asset [ ]
    (c) Capital [ ]
    (d) Fixed asset [ ]

Use the following information to answer questions 16 – 20

**AKIN'S ENTERPRISES**
**BALANCE SHEET AS AT 31ST DECEMBER, 2011**

| | N | N | | N |
|---|---|---|---|---|
| Capital | 84,000 | | Land and building | 45,000 |
| Add net profit | 15,000 | 99,000 | Furniture | 34,000 |
| Less drawing | | 9000 | Stock | 28,000 |
| | | 90,000 | Debtors | 22,000 |
| Creditors | | 25,000 | Cash | 1,000 |
| Accruals | | 15,000 | | |
| | | 130,000 | | 130,000 |

16. Current assets amounts to?
    (a) N51,000 [ ]
    (b) N22,000 [ ]
    (c) N11,000 [ ]
    (d) N50,000 [ ]

17. Fixed assets amounts to?
    (a) N97,000 [ ]
    (b) N28,000 [ ]
    (c) N34,000 [ ]
    (d) N45,000 [ ]

18. Current liabilities amounts to?
    (a) N40,000 [ ]
    (b) N15,000 [ ]
    (c) N25,000 [ ]
    (d) N90,000 [ ]

19. Capital employed amounts to?
    (a) N84,000 [ ]
    (b) N99,000 [ ]
    (c) N115,000 [ ]
    (d) N30,000 [ ]

20. Working capital amounts to?
    (a) N11,000 [ ]
    (b) N23,000 [ ]
    (c) N50,000 [ ]
    (d) N51,000 [ ]

**POST-TEST THEORY QUESTIONS**

Instruction: Answer all questions

Section B [Theory]

JIDE is a trader. The following balances were extracted from his books on 31st Dec 2011

| | ₦ |
|---|---|
| Sales | 307,442 |
| Stock in trade 1/2/2012 | 21,488 |
| Traveller's expenses | 16,198 |
| Salaries | 10,432 |
| Subscription | 104 |
| Repairs | 884 |
| Rent paid | 3040 |
| Printing expenses | 1578 |
| Petty cash in hand | 32 |
| Equipment and furniture | 2916 |
| Lighting | 924 |
| Insurance | 504 |
| Miscellaneous expenses | 3046 |
| Drawings | 7054 |
| Discount allowed | 770 |
| Discount received | 1452 |
| Cash at bank | 8464 |
| Capital account balance | 36,814 |
| Bad and doubtful debt | 1064 |
| Provision – account charges | 462 |
| Debtors | 324 |
| Creditors | 14,460 |
| Stock at 31st July 2011 | 19,112 |
| Depreciation | 324 |
| Purchases | 253,066 |

You are required to prepare a Trading, Profit and Loss Account for the year ended, and a Balance Sheet as at 31st December 2011.

## APPENDIX V
## ANSWERS TO THE POST-TEST QUESTIONS (SECTION A)

| | | | |
|---|---|---|---|
| 1. | D | - | Capital |
| 2. | D | - | Capital account |
| 3 | D | - | Debit side of the trading account |
| 4. | D | - | Current asset in the balance sheet |
| 5 | D | - | Profit and loss account |
| 6 | C | - | Liability of a business to its proprietors |
| 7 | C | - | Goods for production |
| 8 | C | - | For the year ended --- 2010 |
| 9 | C | - | Working capital |
| 10 | C | - | Insurance paid |
| 11 | B | - | Current asset |
| 12 | B | - | Current liability |
| 13 | B | - | Current liability |
| 14 | B | - | Land |
| 15 | B | - | Current asset |
| 16 | A | - | N51,000 |
| 17 | A | - | N79,000 |
| 18 | A | - | N45,000 |
| 19 | A | - | N84,000 |
| 20 | A | - | N11,000 |

EACH QUESTION CARRIES THREE MARKS FOR A TOTAL OF SIXTY MARKS.

**(SECTION B)**
**ANSWERS TO POST-TEST ESSAY QUESTIONS**
**JIDES TRADING AND PROFIT AND LOSS ACCOUNT FOR THE YEAR ENDED 31ST DECEMBER, 2011.**

| DR. | | | | | CR. |
|---|---|---|---|---|---|
| | | N | | | N |
| | Opening stock | 21,488 | Sales | | 307,442 |
| | Purchases | 253,066 | | | |
| | | 274,554 | | | |
| | Less closing stock | 19,112 | | | |
| | Cost of goods sold | 255,442 | | | |
| | Gross profit paid | 52,040 | | | |
| | | 307,442 | | | 307,442 |
| | Printing expenses | 1,578 | Gross profitable paid | | 52,000 |
| | Rent | 3040 | Discount received | | 12,452 |
| | Salaries | 10,432 | | | |
| | Subscription | 104 | | | |
| | Repairs | 884 | | | |
| | Travellers' expenses | 16,198 | | | |
| | Lighting | 924 | | | |
| | Insurance | 504 | | | |
| | Miscellaneous expenses | 3046 | | | |
| | Discount allowed | 770 | | | |
| | Bad and doubtful debt | 1064 | | | |
| | Provision account charges | 462 | | | |
| | Depreciation | 324 | | | |
| | | 39,330 | | | |
| | Net profit c/d | 14,122 | | | |
| | | 53,452 | | | 53,452 |

**JIDE'S**
**BALANCE SHEET AS AT 31ST DECEMBER 2011**

| Financed by | N | N | Fixed assets | N |
|---|---|---|---|---|
| Capital | | 36,814 | Equipment & furniture | 2916 |
| Add net profit | | 14,122 | | |
| | | 50,936 | | |
| Less drawing | | 7054 | Current assets | |
| | | 43,882 | Stock | 19,112 |
| Current liabilities | | | Debtors | 28,280 |
| Creditors | 14,460 | | Cash at bank | 8464 |
| Provision account charges | 462 | 14,922 | Petty cash | 32 |
| | | 58,804 | | 58,804 |

EACH CORRECT ENTRY CARRIES ONE MARK, AND EACH CORRECT BALANCE CARRIES HALF MARK, FOR A TOTAL OF FORTY MARKS.

## APPENDIX VI

## STUDENT'S POST-TEST SCORES

| S/NO | GUIDED-DISCOVERY TEACHING METHOD | S/NO | DEMONSTRATION TEACHING METHOD | S/NO | LECTIRE TEACHING METHOD |
|---|---|---|---|---|---|
| MALE(7) | | MALE(8) | | MALE(6) | |
| 1 | 77 | 1 | 93 | 1 | 52 |
| 2 | 69 | 2 | 98 | 2 | 35 |
| 3 | 52 | 3 | 86 | 3 | 48 |
| 4 | 70 | 4 | 75 | 4 | 28 |
| 5 | 62 | 5 | 50 | 5 | 36 |
| 6 | 88 | 6 | 58 | 6 | 43 |
| 7 | 92 | 7 | 52 | | -- |
| 8 | -- | 8 | 75 | | -- |
| | **510** | | **587** | | **242** |
| FEMALE(9) | | FEMALE(8) | | FEMALE(10) | |
| 1 | 81 | 1 | 95 | 1 | 23 |
| 2 | 89 | 2 | 63 | 2 | 30 |
| 3 | 63 | 3 | 52 | 3 | 21 |
| 4 | 92 | 4 | 58 | 4 | 50 |
| 5 | 85 | 5 | 56 | 5 | 25 |
| 6 | 71 | 6 | 54 | 6 | 42 |
| 7 | 65 | 7 | 41 | 7 | 35 |
| 8 | 68 | 8 | 65 | 8 | 48 |
| 9 | 88 | | -- | 9 | 43 |
| | -- | | -- | 10 | 24 |
| | **702** | | **484** | | **341** |
| **TOTAL** | **1,212** | | **1,071** | | **583** |

## APPENDIX VII

**SUMMARY OF NECO RESULTS FOR ACCOUNTING FROM 2007-2012 IN KADUNA STATE.**

| YEAR | NO. OF STUDENTS | NO. WITH DISTINCTIONS | NO. OF STUDENTS WITH CREDIT | NO. OF STUDENTS WITH PASSES | NO. OF STUDENTS WHO FAILED | % PASSED | % FAILED |
|---|---|---|---|---|---|---|---|
| 2007 | 597 | 0 | 45 | 94 | 597 | 23.28 | 76.72 |
| 2008 | 532 | 0 | 55 | 68 | 532 | 23.12 | 76.12 |
| 2009 | 624 | 0 | 28 | 85 | 624 | 18.11 | 81.89 |
| 2010 | 965 | 0 | 41 | 89 | 965 | 13.47 | 86.53 |
| 2011 | 815 | 0 | 38 | 65 | 815 | 12.28 | 87.72 |
| 2012 | 805 | 0 | 35 | 62 | 805 | 12.08 | 87.92 |

SOURCE: MINISTRY OF EDUCATION, KADUNA STATE, (2012).

## APPENDIX VIII

## LESSON PLAN

### LESSON ONE (USING GUIDED-DISCOVRY TEACHING METHOD)

School: Federal Government College, Kaduna State.

Level: Senior Secondary One. (SS1)

Date: 2nd September, 2013

Day: Monday

Duration: Forty-five Minutes.

Gender: Male and Female.

No, of Students: Sixteen Students.

Group: Experimental Group one.

Subject: Financial Accounting.

Topic: Final Accounts of a Sole Trader

Instructional materials: WAEC and NECO past examination questions from 2005 to 2010.

STEP ONE: Introduction, familiarization and creating rapour.

STEP TWO: The researcher will administer the pre-test instrument to all students in this group.

### LESSON TWO (USING DEMONSTRATION TEACHING METHOD)

School: Federal Government College, Kaduna State.

Level: Senior Secondary One. (SS1)

Date: 3rd September, 2013

Day: Tuesday

Duration: Forty-five Minutes.

Gender: Male and Female.

No, of Students: Sixteen Students.

Group: Experimental Group two.

Subject: Financial Accounting.

Topic: Final Accounts of a Sole Trader

Instructional materials: WAEC and NECO past examination questions from 2005 to 2010.

STEP ONE: Introduction, familiarization and creating rapour.

STEP TWO: The researcher will administer the pre-test instrument to all students in this group.

**LESSON THREE (USING LECTURE TEACHING METHOD)**

School: Federal Government College, Kaduna State.

Level: Senior Secondary One. (SS1)

Date: 4th September, 2013

Day: Wednesday

Duration: Forty-five Minutes.

Gender: Male and Female.

No, of Students: Sixteen Students.

Group: Control Group.

Subject: Financial Accounting.

Topic: Final Accounts of a Sole Trader

Instructional materials: WAEC and NECO past examination questions from 2005 to 2010.

STEP ONE: Introduction, familiarization and creating rapour.

STEP TWO: The researcher will administer the pre-test instrument to all students in this group.

**LESSON FOUR (USING GUIDED-DISCOVERY TEACHING METHOD)**

| | |
|---|---|
| School: | Federal Government College, Kaduna State. |
| Duration: | Forty-five Minutes. |
| Gender: | Male and Female. |
| Date: | 9th September, 2013 |
| Day: | Monday |
| No, of Students: | Sixteen Students. |
| Group: | Experimental group one. |
| Subject: | Financial Accounting. |
| Topic: | Final Accounts of a Sole Trader. |
| Instructional materials: | Frank Woods Business Accounting 1 |

Behavioral Objective: At the end of the lesson, students should be able to pass entries to the ledger account, balance the accounts and extract a trial balance.

STEP ONE: after the administration of the pre-test, the researcher will educate students on the objectives of Guided-discovery.

STEP TWO: the researcher will introduce the topic by starting with an activity to gauge student's pre-conceived notion of double entry system and trial balance. This activity will include helping students memorize that every entry in the double entry system requires

two accounts, debit and credit accounts, therefore debit the giver and credit the receiver in other to draw up a trial balance.

STEP THREE: the researcher will conclude the lesson by asking all students to identify debit entries and credit entries, and finally post entries based on their own understanding. The researcher will then observe them closely as they post entries on their own, and motivate them to explore their inner knowledge.

**LESSON FIVE (USING DEMONSTRATION TEACHING METHOD)**

| | |
|---|---|
| School: | Federal Government College, Kaduna State. |
| Duration: | Forty-five Minutes. |
| Date: | 10th September, 2013 |
| Day: | Tuesday |
| Gender: | Male and Female. |
| No, of Students: | Sixteen Students. |
| Group: | Experimental group Two. |
| Subject: | Financial Accounting. |
| Topic: | Final Accounts of a Sole Trader. |
| Sub topic: | Trading, profit and loss account. |
| Instructional materials: | Frank Woods Business Accounting 1 |

Behavioral Objective: At the end of the lesson, students should be able to draw up a trading, profit and loss account.

STEP ONE: after the administration of the pre-test, the researcher will educate students on the objectives of demonstration teaching method.

STEP TWO: the researcher will introduce trading, profit and loss account by drawing the format on the board. The researcher will then demonstrate how entries are being posted, by saying that since he is facing them, all debit entries belong to the right side of the board and all credit entries belong to the left side of the board. He will go ahead to post entries on the board with step by step explanation of how entries will be arrived at in trading, profit and loss account.

STEP THREE: the teacher will conclude the lesson by asking two students male and female to come out and demonstrate how trading, profit and loss account is derived.

**LESSON SIX (USING LECTURE TEACHING METHOD)**

| | |
|---|---|
| School: | Federal Government College, Kaduna State. |
| Duration: | Forty-five Minutes. |
| Gender: | Male and Female. |
| No, of Students: | Sixteen Students. |
| Date: | 11th September, 2013 |
| Day: | Wednesday |
| Group: | Control Group. |
| Subject: | Financial Accounting. |
| Topic: | Final Accounts of a Sole Trader. |
| Sub topic: | Trading Profit and Loss Account. |
| Instructional materials: | Frank Woods Business Accounting 1. |

Behavioral Objective: At the end of the lesson, students should be able to draw up a trading, profit and loss account.

STEP ONE: after the administration of the pre-test, the researcher will educate students on the objectives of lecture teaching method.

STEP TWO: the researcher will introduce trading, profit and loss account by starting with a brief story on debit and credit, to keep students on alert. The teacher will then share copies of illustration on trading, profit and loss account to the students, then the researcher will go ahead to provide solution to the illustration by posting the entries to the relevant accounts.

STEP THREE: the teacher concludes the lesson by asking students to copy the solution on the board in their note book

**LESSON SEVEN (USING GUIDED-DISCOVERY TEACHING METHOD)**

| | |
|---|---|
| School: | Federal Government College, Kaduna State. |
| Duration: | Forty-five Minutes. |
| Date: | 16th September, 2013 |
| Day: | Monday |
| Gender: | Male and Female. |
| No, of Students: | Sixteen Students. |
| Group: | Experimental Group one. |
| Subject: | Financial Accounting. |
| Topic: | Final Accounts of a Sole Trader. |
| Sub-topic: | Balance Sheet. |
| Instructional materials: | Frank Woods Business Accounting 1 |

Behavioral Objective: At the end of the lesson, students should be able balance accounts in the balance sheet.

STEP ONE: the researcher will educate students on what the balance sheet entails.

STEP TWO: the researcher will use open-ended questions to see how much of the previous lesson the students remember, because their experience in the previous lesson should be related to their present experience. After the question an answer session, the researcher therefore generate and model students idea by draw up the format of a balance sheet and explaining how entries are been posted. This will help them build a common knowledge.

STEP THREE: the researcher concludes the lesson by motivating students to share their current observation, think for them selves, and balance the balance sheet.

**LESSON EIGHT (USING DEMONSTRATION TEACHING METHOD)**

| | |
|---|---|
| School: | Federal Government College, Kaduna State. |
| Duration: | Forty-five Minutes. |
| Date: | 17th September, 2013 |
| Day: | Tuesday. |
| Gender: | Male and Female. |
| No, of Students: | Sixteen Students. |
| Group: | Experimental Group Two. |
| Subject: | Financial Accounting. |
| Topic: | Final Accounts of a Sole Trader. |
| Sub-topic: | Balance Sheet. |
| Instructional materials: | Frank Woods Business Accounting 1 |

Behavioral Objective: At the end of the lesson, students should be able balance accounts in the balance sheet.

STEP ONE: the researcher will give a description of what the balance sheet entails.

STEP TWO: the researcher will draw the format of a balance sheet, and then demonstrate how entries are been posted by performing a drag and drop exercise to capture students attention. Therefore some items will be dragged to assets account while others to the liability account.

STEP THREE: the researcher will conclude the lesson by giving each student an opportunity to ask questions based on the researchers demonstration.

**LESSON NINE (USING LECTURE TEACHING METHOD)**

School: Federal Government College, Kaduna State.

Level: Senior Secondary One. (SS1)

Date: 18th September, 2013

Day: Wednesday

Duration: Forty-five Minutes.

Gender: Male and Female.

No, of Students: Sixteen Students.

Group: Control Group.

Subject: Financial Accounting.

Topic: Final Accounts of a Sole Trader.

Sub-topic: Balance Sheet.

Instructional materials: Frank Woods Business Accounting 1.

Behavioral Objective: At the end of the lesson, students should be able balance accounts in the balance sheet.

STEP ONE: the researcher will educate students on what the balance sheet entails.

STEP TWO: the teacher will draw up the format of the balance sheet and post entries to the format in other to give students an insight on how they can post entries.

STEP THREE: the researcher will conclude the lesson by asking students to take notes.

**LESSON TEN (USING GUIDED-DISCOVERY TEACHING METHOD)**

School: Federal Government College, Kaduna State.

Level: Senior Secondary One. (SS1)

Date: 23rd September, 2013

Day: Monday.

Duration: Forty-five Minutes.

Gender: Male and Female.

No, of Students: Sixteen Students.

Group: Experimental Group One.

Subject: Financial Accounting.

Topic: Final Accounts of a Sole Trader.

Instructional materials: WAEC and NECO past examination questions from 2005 to 2010.

STEP ONE: the researcher will administer the post-test instrument to all students in this group.

**LESSON ELEVEN (USING DEMONSTRATION TEACHING METHOD)**

School: Federal Government College, Kaduna State.

Level: Senior Secondary One. (SS1)

Date: 24th September, 2013

Day: Tuesday

Duration: Forty-five Minutes.

Gender: Male and Female.

No, of Students: Sixteen Students.

Group: Experimental Group Two.

Subject: Financial Accounting.

Topic: Final Accounts of a Sole Trader

Instructional materials: WAEC and NECO past examination questions from 2005 to 2010.

STEP ONE: the researcher will administer the post-test instrument to all students in this group.

**LESSON TWELVE (USING LECTURE TEACHING METHOD)**

School: Federal Government College, Kaduna State.

Level: Senior Secondary One. (SS1)

Date: 25th September, 2013

Day: Tuesday

Duration: Forty-five Minutes.

Gender: Male and Female.

No, of Students: Sixteen Students.

Group: Control Group.

Subject: Financial Accounting.

Topic: Final Accounts of a Sole Trader

Instructional materials: WAEC and NECO past examination questions from 2005 to 2010.

STEP ONE: the researcher will administer the post-test instrument to all students in this group