CHAPTER ONE
INTRODUCTION

Background to the Study

Financial Accounting is one of the vocational subjects taught in senior secondary schools. Financial Accounting is systematic act of reading, classifying, selecting, measuring and interpreting financial data which enables the users to make decision. The aim is to provide appropriate knowledge, skills, abilities and competencies necessary for students to study higher and or live in, and contribute meaningfully to the development of the nation and dynamic business environment. The Federal Republic of Nigeria (2011) stated that the broad goal of secondary school education (also referred to as post basic education)is to prepare individuals for useful living within the society and higher education. To achieve this objective, at the Junior Secondary School, Bookkeeping (Pre-vocational subject) is taught as a component of Business Studies to prepare the students towards the choice of any of the business components including Financial Accounting at the senior secondary level.

The Post Basic Education (senior secondary school) in Nigeria prepares the students for higher education either in polytechnics, monotechnics, colleges of education, innovative enterprise institutions or universities for specialized skills development in various fields including Financial Accounting. The objectives of Financial Accounting as contained in the West African Senior School Certificate Syllabus (2011) are to: enable candidates appreciate the rules and functions of accounting; lay a sound foundation for further study of Accounting at higher level; and assess candidates' knowledge of basic accounting principles and their application to modern business activities.

The dynamism of the society and business activities cannot be overstressed. Nigeria in the 21st century presents a radically different economy and a society which

poses profound implications on financial accounting education. The globalization of trade and commerce, rapid technological changes, information and communication technology revolution, sustainable development and the emergence of knowledge economy all pose new challenges around the world and Nigeria in particular (Akpan, Akpan & Inyang 2011).

The sole aim of any instruction is to evoke learning. It is observed that not all instructional efforts result to learning. Some teaching efforts are counterproductive as they result in adverse behavioural patterns. Instructional delivery constitutes the highest level of implementation of policies and the most problematic area of curriculum. It is the activity centre of education, that is, the whole process through which character is formed and personality developed. It involves teachers, learners and environment. The modern approach to teaching and learning is making a greater demand upon financial accounting teachers and educators (Ukegbu & Anuonye, 2012). The main objective of teaching Financial Accounting is to equip students with intellectual and professional skills. In order to achieve this, new concepts, strategies and methodologies (innovation) have to be introduced in the teaching of accounting. Despite the importance of financial accounting to the individual and national development, over the years, the secondary school students ’achievement in this subject is far from impressive, this has been observed in the poor achievements of students in 2015, with 48% pass level, in 2016 46% pass level and in 2017 46.7% pass level. While the failure level in the said subject for 2015, 2016 and 2017 recorded 52%, 54% and 53.3% respectively.

Achievement is recorded when the skills taught are successful and objectives realized on the part of the teacher and the students in the teaching and learning process in the classroom. Internal and external examinations/tests, transfer of learning as well as a

permanent change in behaviour of the students consequent upon the learning process form the yardstick of achievement. The level of achievement of secondary school students is, to a great extent, influenced by individual learning and teaching strategies (Felder, 2014). Hazikiel (2012) asserted that the interest and achievement which students show in subjects such as financial accounting, and the mastery they demonstrate on completion of a course of study depend, to a large extent, on the teaching methods. Other factors may include student factors, societal factors, home factors, government factor, language problem and instructional strategy employed by the teacher (Ali, 2011; Chacko, 2013& Felder, 2014).

The teacher is the fulcrum in conceptualizing, developing, designing and utilizing appropriate instructional models in the teaching-learning process for desirable outcome. Okoro (2015) observed that not all the teaching strategies applied by teachers to effects learning are appropriate in every situation adding that appropriate teaching strategy to a given situation provides better learning outcome. One of the characteristics of a competent teacher is that he is conversant with a wide variety of instructional strategies and materials in order to select the one that best accomplishes a particular goal. Some of these instructional models include guided inquiry/discovery, demonstration, discussion, expository, collaborative, simulation, role play, jigsaw, concept mapping and time lines among others.

There is seemingly no one exclusive teaching method that is perfectly indispensable of others in getting students to overcome their poor perception of difficult accounting concepts. The level of study, core-curriculum objectives of the subject and student characteristics dictate which method is appropriate to adopt at any given time or situation. This was why Eze (2011) posited that there is no unanimity among researchers

on the best technique or model of teaching Financial Accounting, Okoro (2015) asserted that uniform treatment of learners at any level in any subject area is erroneous because the same learning activity, subject matter or teaching strategy will not evoke the same achievement or responses from different learners at any given time. Similarly, a particular teaching model that enhances learning on male students may not have a corresponding effect on female students and vice versa.

The predominant method used in teaching Financial Accounting in the senior secondary schools continue to be the age long expository method which is the text-board-talk and chalk. The researcher has been in the teaching profession for twenty years and has observed that, despite various changes and reforms in accounting curriculum contents and needs, most teachers are not sensitive to the changes refusing in their instructional techniques and continue to use the expository method even when the topic requires different methods for better understanding. This seems to result in students not achieving the expected learning outcome in Financial Accounting.

The text-board-talk and chalk (the expository method) is a teacher centred approach employed by accounting teachers to instruction. The teacher dominates the learning process using a textbook and chalk-board as well as talking and writing notes for students to copy. According to Obasi (2011), Tochonites (2012), Ukoha and Eneogwe (2012) and Udoidiong (2011), expository method involves only the teacher talking while most of the students remain passive listeners. These authors contended that using the method in teaching accounting in senior secondary schools failed to produce students with needed employable skills and eligibility for further education. It is imperative that innovative instructional models such as jigsaw and guided inquiry be introduced in the teaching of financial accounting.

Jig-saw is one of the cooperative learning strategies which allow students to take responsibility for teaching each other to achieve certain objectives. Aronson (2002) posits that jigsaw cooperative learning strategy enables students of a "home" group to specialize in one aspect of learning unit. Jimoh (2016) proposed that in using jig-saw, the teacher divides the students into four to five jigsaw groups, divide the lesson into expert areas and assigns brilliant students to each expert area'. Experts from different groups meet together at a round table to discuss their content giving each expert opportunity to learn the whole content and then experts return to their jigsaw groups to teach members the whole unit of work. Jigsaw cooperative learning strategy can be used to teach or learn in secondary and higher institutions (Mbacho, 2013). The main purpose of jigsaw is to develop teamwork and cooperative learning skills among students. These skills are necessary for financial accounting students as it will better enable them to transfer of what they leant from the school to the work environment.

Guided discovery is an inquiry-based, student centered and an activity-oriented teaching strategy which allows financial accounting teacher to use varieties of instructional materials and probing questions, to enable students discover answers to accounting problems. According to Ekhasemomhe (2010), this strategy places the teacher as the overseer and facilitator of learning, and as the mediator between the students and the instructional materials for the lesson. Discovery learning takes place in problem-solving situations where the learners use their own experiences and prior knowledge to discover the truths that are to be learned. Discovery learning is a strategy through which students interact with materials by exploring and battling with probing questions or performing experiments to discover more knowledge (Olorode & Jimoh, 2016). It is

believed that students are likely to remember concepts they discover on their own than those they are taught.

Gender is the grouping of people into feminine and masculine through interaction with caretaker and socialization in childhood (Ezenwosu & Nworgu, 2013).There is a general belief in Nigeria that males are superior to females in terms of physical fitness, cognition, logical reasoning and even academic achievement. According to Ezenwosu and Nworgu, male students perform better in practical oriented subjects like physics, mathematics, statistics and accounting. William in Turned (2014) reported that academic achievement differs between boys and girls in basic subjects both at primary and secondary school levels. According to William, to disentangle gender influence on academic achievement is a complex task.

However, it is widely believed that using appropriate teaching methods will improve the academic achievement of senior secondary school students in Financial Accounting and other subjects. Hence this study is considered imperative as it will highlight the effects of different teaching methods as the academic achievement of senior secondary students in Akwa Ibom State in Financial Accounting.

Statement of the Problem

Trends in students' achievement and choice of Financial Accounting as a career subject at the senior secondary school level have been quite discouraging. Students conceive financial accounting erroneously to be a very difficult subject in concepts and application. As a result the number of students offering the subject has continued to dwindle and the academic achievements of those that offer it have been persistently low. This is evidenced in the West African Senior School Certificate Examination (WASSCE) results in Financial Accounting from 2013 – 2017(see Appendix A at page 108). The

analysis shows that percentage of students that passed at credit level pass ranged between 41 and 48 percent while those with ordinary pass and failure grades ranged between 52 and 59 percent.

A number of factors have been identified to be contributory to students' poor academic achievements in Financial Accounting. Yalams and Fatokin in Eze (2014) identified some of these factors to include students' study habits, school environment, lack of facilities and inappropriate teaching methods. Supporting the above stance, Agboh (2015) attributed poor academic achievement of students to deficiency in teaching methods adopted by Financial Accounting teachers which invariably do not encourage students' active participation in the instructional process. In fact, the role of the teachers in Nigerian secondary schools does not give students the opportunity of being involved in their own learning. The chalk and talks (lecture method) practice prevalent in Nigerian secondary schools have made the role of the students a passive one. The student is regarded as the recipient of learning while the teacher is the giver. Onukaogu and Arua in Agboh (2015) saw the student in this regard, as one who sits and swallows what the teacher has to give in terms of narration, exposition, instruction, classification, definition, and so on. The resultant effect of this has always being poor academic achievements of students.

In view of the above, there is the need to conduct a study on an innovative and participatory teaching method where students could become active participants in the learning process. One of such teaching method is the use of jigsaw and guided inquiry instructional models. Though, jigsaw and guided inquiry models as teaching methods may be known by Financial Accounting teachers and students in secondary schools, but its effect on the academic achievements of students is not clearly known. Therefore, the

problem of this study is: Will theuse of jigsaw and guided inquiry instructional models improve the academic achievement of secondary school students in Financial Accounting in AkwaIbom State?

Purpose of the Study

The purpose of this study is to determine the effects of jigsaw and guided inquiry models on senior secondary school students' academic achievement in Financial Accounting in Akwa Ibom State. Specifically, the study sought to determine the:

1. The effect of teaching Financial Accounting with the Jigsaw and expository models on senior secondary school students' achievement in Financial Accounting Achievement test.
2. The effect of teaching Financial Accounting with the guided inquiry and expository models on senior secondary school students' achievement in Financial Accounting Achievement test.
3. The effect of teaching Financial Accounting with the Jigsaw and guided inquiry on senior secondary school students' achievement in Financial Accounting Achievement test.
4. The effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models on senior secondary school students' achievement in Financial Accounting Achievement test.
5. The effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models on the gender of senior secondary school students' achievement in Financial Accounting Achievement test.

6. Determine the effects of instructional methods (jigsaw, guided enquiry, and expository models on students academic achievement in financial accounting in senior secondary schools.

Significance of the Study

The findings of this study would be of benefit to the Financial Accounting students and teachers, Accounting lecturers and students in tertiary institution, curriculum planners, school administrators, employers of labour, future researchers and the government.

The students would benefit from the findings of the study as they would be exposed to instructional approaches that would enhance motivation for greater academic achievement in Financial Accounting and related subjects. They would have thorough appreciation of accounting concepts, conventions, principles, techniques, procedures and application in various contexts. Students would also be repositioned with confidence for further studies in business disciplines to meet the changing and challenging needs of modern society.

The findings of this study would be of great benefit to teachers and lecturers in tertiary levels in adopting the most effective method for teaching Financial Accounting. The method when adopted would help to improve their students' achievement. It is also hoped the massive and consistent failure in financial accounting among the secondary school students may be reduced and their grade in the subject be improved.

The findings of the study when published would serve as resource material for curriculum planners, developers and implementers for the need to produce and use financial accounting curriculum that does not only aim at developing knowledge and skills in students, but also provide a vehicle for the development of students' sound moral character, enhance their generic skills and make them life-long learners.

The findings would be of significance to the educational administrators and Ministry of Education if published as a guide for policy formulation, planning, implementation and supervision of instructional methods in financial accounting for students and teachers in senior secondary schools.

The findings equally would let the policy maker to determine the necessary and appropriate resources materials in financial accounting to provide to schools on time. The employers of labour would equally benefit from the findings of the study as those students exposed to innovative instructional models will provide for dependable and sustainable workforce in the organizations.

Finally, the researchers would benefit from the findings of the study as a major contribution to knowledge with particular interest in financial accounting theory and practice which had suffered a great deal of instructional approach defects. The findings would also serve as a spring board for further studies in instructional approaches that can enhance learning in accounting education.

Scope of the Study

This study is focussed on the effects of jigsaw and guided inquiry models on senior secondary school students' academic achievement in Financial Accounting in Akwa Ibom State. It was delimited to public senior secondary school students offering Financial Accounting in the area of study. There are many topics in the curriculum of Financial Accounting but the content scope of this study was delimited to Accounting concepts and conventions, departmental accounts, fixed instalment and diminishing balance methods of depreciation, trading, profit and loss accounts selected from SS 2 scheme of work. Gender was the only variable of interest in the study.

Research Questions

The following research questions guided the study.

1. What is the effect of teaching Financial Accounting with the Jigsaw and expository models on senior secondary school students' achievement in Financial Accounting Achievement test?
2. What is the effect of teaching Financial Accounting with the guided inquiry and expository models on senior secondary school students' achievement in Financial Accounting Achievement test?
3. What is the effect of teaching Financial Accounting with the Jigsaw and guided inquiry on senior secondary school students' achievement in Financial Accounting Achievement test?
4. What is the effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models on senior secondary school students' achievement in Financial Accounting Achievement test?
5. What is the effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models on the gender of senior secondary school students' achievement in Financial Accounting Achievement test?
6. Which of the instructional models (jigsaw, guided enquiry, and expository model) used, most enhances, students academic achievement in financial accounting in senior secondary schools?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance:

1. The effect of teaching Financial Accounting with the Jigsaw and expository models on senior secondary school students achievement in Financial Accounting Achievement test is not significant.

2. The effect of teaching Financial Accounting with the guided inquiry and expository models on senior secondary school students' achievement in Financial Accounting Achievement test is not significant.
3. The effect of teaching Financial Accounting with the Jigsaw and guided inquiry on senior secondary school students' achievement in Financial Accounting Achievement test is not significant.
4. The effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models on senior secondary school students' achievement in Financial Accounting Achievement test is not significant.
5. The effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models on the gender of senior secondary school students' achievement in Financial Accounting Achievement test is not significant.
6. There is no significant difference on the effect of instructional models (jigsaw, guided enquiry, and expository models) on students academic achievement in financial accounting in senior secondary schools.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The literature related to this study was discussed under the following sub headings:

Conceptual Framework

Jigsaw Model

Guided Inquiry (GIN) Model

Academic Achievement

Financial Accounting

Theoretical Framework

Social Learning Theory

Constructivism Learning Theory

Theoretical Studies

Relevance of Financial Accounting in Business and Governance

Components of Financial Accounting

Teaching of Financial Accounting in Nigerian Secondary Schools

History of Instructional Models

Benefits of Instruction Models in Teaching and Learning

Empirical Studies

Effect of Teaching Financial Accounting with Jigsaw Model

Effect of Teaching Financial Accounting with Guided Inquiry Model

Effect of Teaching Financial Accounting with Expository Method

Interaction effects of gender and teaching methods on students' achievement

Summary of Review of Related Literature

Conceptual Framework

Relevant concepts in the title of the study are reviewed as follows:

Jigsaw

Jigsaw model is a student-centred and cooperative strategy of teaching/learning which provides an efficient way to learn course material or lesson to increase educational outcomes. The name Jigsaw is derived from the fact that each student creates a piece of puzzle to make a jigsaw of understanding about a topic. Each student is an important part of the puzzle that completes the final jigsaw product. Each team or group has a piece of the information to be learned by all students, and each student is responsible for teaching a section to the other students in the team. When all the pieces of the puzzles are put together, the students should have the whole picture, hence the name "Jigsaw" (Ledlow, 2012).

According to Mengduo and Xiaolong (2011), jigsaw is a cooperative learning technique, an effective way to promote students participation and enthusiasm as well as a useful technique for language learners to accomplish learning tasks (achievement). The jigsaw strategy or model is used to develop the skills and expertise needed to participate effectively in group activities. It focuses on listening, speaking, cooperation, reflective and creative thinking, and problem solving skills which are expected of students of financial accounting to acquire and transfer them accordingly. According to Bradley and Green (2011), the jigsaw encourages students to become engaged in their learning. It motivates students to learn a lot of material quickly and inspires them to share information with peers. Bradley and Green stated that the technique minimizes listening time, and makes students responsible for their own learning. Given that each group needs its members to perform well in order for the whole group to succeed, this model

maximizes interaction and establishes an atmosphere of cooperation and respect for other students.

The jigsaw model requires students to think through and discover or construct (rather than simply being told) effective ways of teaching their segment of the course content to the other group members. The process of teaching then reinforces the students instruction own learning and they develop a deeper knowledge of their material than that typically afforded by passively listening to a lecture. Students who do not like to participate in a traditional classroom setting generally feel more comfortable speaking up in the small groups found in jigsaw classrooms. The jigsaw teaching model is appropriate for use across various curriculum areas, with any class size (large or small) and at any student level. Group member must work together as a team to accomplish a common goal. No student can succeed completely unless everyone works together as a team this "cooperation by design" facilitates interaction among all students in the class, leading them to value each other as contributors to their common task (Berg, 2013).

In the context of this study, jigsaw model is an instructional approach in which learners work in small learning groups to address problems and other learning objectives while the teacher acts as a facilitator. It is the approach that allows students to work together to attain their learning objectives. Moreover, the jigsaw model enables students to derive their own patterns of thoughts and meaning from the learning materials through interaction with peers which led to a better understanding of the accounting concepts and conventions.

Guided Inquiry Model

Guided inquiry is a model of teaching and learning whereby the teacher directs, guides and facilitates the learners to acquire knowledge and skills through process of

inquiry. It is a student-centred and a problem solving approaches that are real and relevant to the learner. Edet (2013) defined guided inquiry as a student centred activity and oriented teaching activity in which the teacher directs students through problem-solving approach to discover answers. Siddiqui (2011) opined that inquiry-based learning requires that students play a major role in the teaching learning process.

According to Siddiqui(2011(, inquiry is a natural way that human beings learn about their environment. Uwameji and Titilayo (2014) observed that guided inquiry model is an approach where the learner or student generates his or her own form of information, characterized by learner-centered, leader-facilitated, learner-active and learning process emphasis. The teacher here is released from the role of authority and knowledge giver to become a facilitator and fellow investigator who is not a reservoir of knowledge and a solution to all learning problems.

According to King (2014), guided inquiry (instruction) is a style of teaching in which the task acts as the context and a driving force for the learning.

Guided inquiry encourage deep rather than surface learning and understanding, student however make use of the material by interpreting new knowledge with prior knowledge through the experience of solving problems using a wide range of critical, cognitive and transferable skills. In the context of this study, guided inquiry is a range of activities aimed at assisting the learner to acquire knowledge, attitude, value, habits and skills on his own under the guidance of the teacher.

Academic Achievement

Amatefe and Amatefe (2013) defined academic achievement as a social construct that establishes and differentiates status and are rewarded by the economy as the productive agent. Omatseye (2014) in Anaibor (2012) saw academic achievement “as the

sense of being high". While Awopegba (2012) on the other hand defined academic achievement as a concept, condition, a category, an adjective and a component. Most times, when the word "academic" is used, people immediately suppose that, that reference is being made to the higher calibre of the student performance (Ainabor, Ainabor and Ehimi, 2012). Academic achievement is a system of roles and relationships between men and women that are not determined by nature but by sound economic and political constructs. Thus, Maduewesi (2013) argued that academic achievement are biologically different, but all cultures interpret and elaborate these inherent biological differences into a set of social expectations about what behaviours and activities are appropriate for them, and what rights, resources and even power they posses. Esiobu (2010) is a broad analytical and dynamic concept which draws out the role and responsibilities in relation to those who have access or opportunities to ensuring non-discriminatory education exposure for them in school and guaranteeing them an equitable chance of success in teaching-learning.

Academic achievement is the outcome of education, that is, the extent to which a student, teacher or institution has achieved their educational goals. According to Jimoh, Idris and Olatunji (2016), academic achievement is the degree of success attained by students after being exposed to one form of learning or the other. Jimoh (2014) corroborates that academic achievement is the level of success attained by students in school subjects. It can be used to indicate students' level of success in a particular task previously exposed to and it can also be used as indices for determining students' ability to effectively undertake another task. Ezenwosu and Nworgu (2013) noted that academic achievement is commonly measured using classroom exercise, assignment and continuous assessment as well as internal and external examination.

In the context of this study, academic achievement of a student could be defined as the learning outcomes of the student. This includes the knowledge, skills and ideas, acquired and obtained through their course of study within and outside the classroom situation. Academic achievement also refers to excellence in all academic discipline, in a class as well as extracurricular activities. It includes excellence in sporting behaviour, confidence, communication skills, and others. To assist secondary students attain academic success in financial accounting, teachers need to adopt certain method and strategies in instructional delivery.

Financial Accounting

Financial Accounting is the process of collecting, recording, presenting and analyzing/interpreting financial information for the user of financial statements (Igben, 2013). Bookkeeping is the recording phase and an integral part of accounting kept systematically so that the financial position of a business can be readily ascertained at any given time. It is kept or recorded by the application of double entry system. Accounting data are processed into accounting information through the use of accounting concepts, principles and conventions. The accounting principles according to Yusuf (2015) are the basic fundamental which guides accountants in recording, appreciating and assessing accounting information as well as the preparation and interpretation of financial statements. These principles are widely adopted and globally used.

Accounting may be defined as being concerned with the recording, classifying, creating, summarizing and communicating of financial information to interested parties and interpreting to help in making specific business decisions (Longe, 2010). According to Longe, it include the design of the financial information system, preparation of financial statements, development of forecast and their analysis and interpretation of

accounting information to assist decision-makers in making informed decisions. Wood and Sangster (2013) and Longe and Kazeem (2010) viewed accounting as the process of identifying, measuring and communicating economic information to permit informed judgements and decisions by users of the information. Here, accounting involves deciding what amount of money are, were, or will be involved in transactions (often buying and selling transactions) and their organizing the information obtained and presenting it in a way that is useful for decision making.

Essien (2014) defined accounting as the process of measurement, analysis and classification of financial transactions, computation of suns and ratios, presentation and communication of the information obtained in a appropriate form to the groups, for the purpose of financial decision making.

Jat & Jugu in Olorode and Jimoh (2016) defined financial accounting as a service activity which provides social communication through which changes and improvements in business activities are communicated to various users in order to allow them make informed decision. Akinbuli (2006) stressed that financial accounting is a branch of accounting that enables business managers to report their stewardship, keep records of all financial transactions, provides records for tax assessment, planning and decision making. Financial accounting is the process of identifying, measuring, and communicating economic and financial information to permit informed judgments and decision by the users of the information (Okwoli, 2006).

In the context of this study, Financial Accounting is a systematic recording of business transactions, analyzing, classifying, measuring and communicating accounting information to the end users for decision making. It is an academic course that equips students with relevant skills and knowledge needed for occupation in accounting field.

The major objective of offering financial accounting in secondary school is to impart the necessary skills and knowledge for performing financial duties in any business organization and provide students with technical and professional skills needed to handle financial accounting subject in both secondary and tertiary institutions including colleges of education.

Theoretical Framework

Theories that have relevance to this study are reviewed in this section as follows:

Social Cognitive Theory

Social cognitive theory was formally called social learning theory and it was propounded by Canadian psychology Albert Bandura in 1962. It is a learning theory that is based on the idea that people learn by watching others do. The theory states that learning occurs through observation and that environment, behaviour and cognition are all chief factors that influence development. The major assumptions of social cognitive theory include that: People can learn by watching others that is learning occurs when people watch others doing the task; Learning is an internal process that may or may not change or affect behaviour; reinforcement and punishment have direct as well as indirect effect on learning.

Social cognitive theory relates to cooperative learning in that it posit that the most effective means of learning is through observation that is (by watching others). Jigsaw cooperative learning strategy also results in observational learning by which collaborative efforts help group members to discover facts and explain it to others. For instance, in a jigsaw technique where expert meet to discuss view about a concept while other members of the group observe. It is obvious that those watching will gain and learn from the exercise being illustrated during interactive section. Therefore the use of cooperative learning method leads to improved learning and retention from social cognitive theoretical perspective.

Constructivism Theory

Constructivism theory was propounded by Burner in 1966. The theory states that learners have the ability to draw or infer ideas based on their past and present knowledge or experience. The learners through their ideas build cognitive ability which allows them to arrive at new concepts from the past knowledge gained. The theory insists that the method of instruction should be focused on motivation, encouragement, helping and allowing students to discover new ideas, principles and facts on their own through guided means. The theory encourages learners' inquisitiveness, exploration, innovation and initiation. The guiding principles of constructivism are:

1. Knowledge is constructed and no transmitted.
2. Prior knowledge (schema) impacts the learning process.
3. Initial understanding is local not global
4. Building useful knowledge structures require effortful and purposeful activity.

Constructivism theory stated that knowledge cannot be passively "copies" from teacher or textbook, but be actively constructed by the learner. Constructivist theories are based on the belief that knowledge is acquired by learners as they attempt to manipulate their experience. Learners are not empty vessels waiting to be filled, but they are active organism seeking relevance with their experience. Constructivist approach encourage teachers to provide student centred instruction in a complex learning environment with formats appropriate to learner's current state of understanding that incorporates authentic activities. Constructivism place more emphasis than other cognitive theories on learners constructing their own understanding. Constructivist view of learning encourages the learner as an active participant to construct knowledge in making sense of his real world experiences. Constructivist instructional models include Jigsaw and guided inquiry,

concept mapping, timelines, problem based, field trip, modelling coaching and scaffolding among others.

One of the primary goals of using constructivist teaching is that students learn how to learn by giving them the training to take initiative for their own learning experiences. The main characteristics of a constructivist classroom are that the learners are activity involved, the environment is democratic and the activities are interactive and student-centred while the teacher facilitates a process of learning which students are encouraged to be responsible and autonomous.

The constructivism teaching/learning theory relates significantly to this study as it emphasizes student centeredness based on interactions among learners and the learning environment which is the major characteristic of cooperative learning models such as jigsaw and guided inquiry. These learning provide an avenue for student to discover ideas, facts, principles and knowledge content on their own with little guidance from the teacher. Also, financial accounting offered in colleges of education aimed at building better understanding of what the students have learnt in secondary schools and self discovery of financial accounting concepts and principles is possible through guided discovery strategy.

Theoretical Studies

Relevance of Financial Accounting in Business and Governance

Financial Accounting, which some call "the language of business," is important to companies of any size. For small-business owners, the importance of financial accounting sometimes is overlooked. By understanding how useful financial accounting can be to the success of a small business, you can focus on the qualities that can take your business the furthest.

A major use of Financial Accounting is for the recording of transactions. This function of accounting is also known as bookkeeping. Small-business owners use Financial Accounting to record business activity in the company's ledger. Because Financial Accounting uses the double-entry system, each transaction affects two accounts, representing the two sides to a transaction. For example, if a business owner purchases land for cash, he would record a debit to the land account to represent the receipt of land, and a credit to the cash account to represent the outflow of cash. This use of accounting is important to small-business owners because it provides a methodological approach to describing the activities of business.

Small-business owners use Financial Accounting to communicate information to external parties. People and organizations that use the financial information of a company, but are not part of the company, are known as external users of financial statements. Owners communicate the financial health and well-being of a company to external users through the financial statements, which are the end result of recording financial accounting transactions. External users will examine the financial statements and compare the results to their own expectations, forming an assessment of the company. Common external users include banks, suppliers and leasing companies.

While managerial accounting is more geared towards internal users, Financial Accounting is also used for internal information communication. Internal users of Financial accounting information include the finance team and employees who may be interested in profit-sharing or stock-based compensation agreements. Small-business owners can use financial accounting information to share company strengths and weaknesses with employees. For small public companies, a common metric is the

company's share price. Owners may tie bonus and compensation amounts to share price and encourage employee productivity accordingly.

Small-business owners may use financial accounting information to analyze competitors and evaluate investment opportunities. Because financial accounting is governed by generally accepted accounting principles, the financial statements of different companies are comparable to one another. This basis for comparability provides a standard method of analysis. Small-business owners can compute financial ratios using the company's financial statements, and compare the ratios to benchmarks or other competitors. While financial statements are comparable, small-business owners should exercise some caution, as non-financial measures can provide insight into a company's health as well.

Through accounting, corporations can keep track of their expenditures and income and establish an accurate picture of their overall financial status. Ultimately, accounting helps corporations run smoothly on a practical, ethical and legal basis, establishing a foundation for continued growth and success (Bushman and Smith, 2001).

Accounting is useful on a practical level as a tool of corporate governance. Through accurate, thorough and honest accounting, corporations can make beneficial decisions about investment, growth and operations. As a simple example, accounting might show that a foreign venture was twice as expensive and half as profitable as originally estimated. On the basis of this information, corporate decision makers are able to draft new plans and take corrective action. On the most fundamental level, accounting makes it possible for managers to expand on plans that get good results and to eliminate programs that impede success.

Corporations are accountable to the public in a variety of ways. Proper accounting helps corporations meet their obligations, including their obligation to pay taxes. The public decides whether or not to invest in a corporation based on accounting reports, and investors depend on proper accounting to make sure the company doesn't engage in unsavory practices that could misrepresent the value of their investments. Accounting gives consumers the power to articulate demands, forcing management to address their needs when making decisions. Corporate policies are revealed in accounting records, which are crucial to public perception of a corporation.

Corporations are most accountable to shareholders, who are part owners of the organization. Corporations are legally required to give shareholders detailed financial information. This allows shareholders the right to make informed decisions. For example, if shareholders feel that money is being wasted in bonuses or elsewhere, they are free to withdraw their investment or vote to formulate a new policy. Accounting gives shareholders the information they need to make informed decisions and to have their legal say in the policies of the corporation. This accountability is generally good for profits, since shareholders have an interest in the success of the corporation.

While accounting aids long-term corporate planning, it is also vital for making short-term decisions. Accounting helps company leaders manage money, prioritize and take concrete financial action. Through accounting, managers can see what they have available to spend and where it should go. Decisions about equipment, supplies and labor are made as a result of accounting figures. Accounting also helps corporations manage lines of credit and take stock of all their short-term financial resources. This helps them avoid unnecessary debt.

Components of Financial Accounting

Financial Accounting in Senior Secondary Schools

Financial Accounting is one of the relevant subjects for senior secondary school (Business) category or stream. Accounting curriculum has been experiencing constant review and amendment from time to time since 1985 when the senior secondary education came into being in Nigeria. This review calumniated into changes of the subject titles and assumed various descriptions such as Accounts, Principles of Accounts, Bookkeeping, Bookkeeping and Accounts Financial Accounting, and Accounting as it is known presently. According to Federal Ministry of Education (2011), the need for constant review of accounting curriculum emanated from the fact that since the staid 1985, Nigerian has experiencing a lot reforms and adjustment, in are economic and financial system. Such reform according to NERDC include Structural Adjustment Programme (SAP) vision 2010, National economic empowerment and development strategies (NEED) news partnership for African development (NEPAD), financial accounting strategy, Nigerian vision 2020, among others. And accounting being the language and sail of business its curriculum needs to respond to every change in economics and financial system of the country the student who are the feature leaders should be properly coined along to suit their needs and that of the society.

The various themes of the new curriculum which have been arranged in accordance with the principle of "moving from to unknown have fifteen main of major theme with related topics – these are introduction and historical Development of Bookkeeping and Accounting, principles and concepts Accounting, journal, and cash Accounts classes of account and final Account of sole proprietor, control Account Depreciation of Assets manufacturing Account partnership Account, Account of non-

profit making organizations, special accounts formation of a company and Nigeria financial system company Account and the regulation of the Nigeria Capital Market, Commercial Accounting Department and Branch Accounts and Government Accounts the importance strong point of the new curriculum is that it is properly inculcated into the student, a lot of them would have been properly grounded and prepared to becoming professionally qualified accountant (FME, 2010).

The main aims of objective of financial accounting according to National Examination Council (NECO) and the West Africa Examination Council (WACE) 2012:2010 respective are to:

1. Enable the senior secondary school candidate appreciate the basic function, and principles of accounting.
2. Lay proper foundation for further study of accounting and allied course at high level and
3. Assess candidate knowledge of basic accounting principle and practice, as well as their application of modern business activities.

Considering the aims of new curriculum and of the examination bodies the teaching of financial accounting in senior secondary school has been limited to the use of traditional or conventional text board-talk and chalk base model. This is why the student's achievement rate is poor and low over the years WAEC (2010) analysis of percentage performance of candles in twenty popular subject in West Africa senior school certificate examination for 1988, 1999 and 2000 revalue 52.48% and 59.21% percentages failure in financial accounting it is assumed that between 1998 and now the situation would have changed. Chief Examiner's Reports on West Africa Senior School Certificate Examination May/June (2004) observed candidates' weaknesses in poor understanding of

theory of Financial Accounting as a result of which they could not answer questions from that section, inability to prepare accounts necessary to record deprecation of assets, among others. Most candidates scored very low Marks in this area.

Akpan (2014), asserted that the number of register for WASSC examination keeps increasing every year while the number that pass keeps decreasing every year. The failure story is not different in order external examination such as Unified Territory Matriculation, Examinations, National Business and Technical Examinations, and National Examinations Council (NECO). For instance, NECO Registrar and Chief Executive Officer, Prof. Promise Okpula announcing the November/December 2014 NECO result in the 25 subject on which candidates where examined indicated that only 19,578 representing 37.7 percent of 42.984 that sat for Financial Accounting made credited pass (The Nation Newspaper, Thursday March 31, 2011, P 4), Akintlure (2010) blamed the problem of accounting teachers in sensitivity to the nature of the subject when planning instructional activities in the classroom.

This expository teaching model in senior secondary Financial Accounting is at variance with individual instruction, cooperative learning, use of effective learning/teaching strategies other methods of such as jigsaw and guided inquiry for improved student's academic achievement. Research findings by Ekpo 2014, Ibe and Bassey, 2014 and Majoka, Dad & Mahmood, 2010 supported and advocated alternative teaching strategies. Jigsaw and guided inquiry are such strategies that should be employed by accounting teachers for improved student academic achievement in both internal and external examinations. To achieve the objectives of financial accounting, teachers employ various instructional models in the classroom. Cantrell, 2010, Raymond and Ogunbameru

(2010) asserted that teaching method are in a continuum, ranging from exposition to inquiry.

Essien (2014) defined accounting as the process of measurement, analysis and classification of financial transactions, computation of suns and ratios, presentation and communication of the information obtained in a appropriate form to the groups, for the purpose of financial decision making. Financial Accounting is the process of collecting, recording, presenting and analyzing/interpreting financial information for the user of financial statements (Igben, 2013). Bookkeeping is the recording phase and an integral part of accounting kept systematically so that the financial position of a business can be readily ascertained at any given time. It is kept or recorded by the application of double entry system. Accounting data are processed into accounting information through the use of accounting concepts, principles and conventions. The accounting principles according to Yusuf (2015), are the basic fundamentals which guides accountants in recording, appreciating and assessing accounting information as well as the preparation and interpretation of financial statements. These principles are widely adopted and globally used.

Accounting Concepts

These are the fundamental accounting policies generally accepted as principles, bases, rules and practices, assumptions, and applied in the preparation and presentation of income and financial statements of relevant accounting entries. They are guides in recording appreciating, preparing, interpreting and communicating financial statements to users of accounting information. The concepts are:

1. **Going Concern Concept:** This concept assumes that the business once established will continue to operate for an indefinitely long period of time or for the foreseeable future. Eko and Udofia (2013).
2. **Business Entity Concept:** This is the assumption that business enterprise should be treated as a separate entity from the owner(s). Hence, only the transactions that affect the firm, and not the owner's private transactions, will be recorded.
3. **Cost Concept:** This concept assumes that the value of an asset or expenses of the business be recorded in the books of accounts at its actual cost at which it was bought or paid and not by the value of returns expected to earned.
4. **Money Measurement Concept:** This is the principle of recording only transactions that can be expressed in monetary terms and not management techniques or staff morale. Adeleke and Binuomote (2013).
5. **Dual Aspect (Double Entry) Concept:** This is the principle that every transaction or financial event is required to have two entries – one on the debit entry and another on the credit entry. That is; a transaction must be recorded twice (debit and credit respectively) in the books of accounts.
6. **Accrual Concept:** This assumes that revenues and expenses are recognized as they are earned or incurred and not when money is received or paid. Further here, the difference between revenues and expenses will show the profit or loss of the business during the accounting period.
7. **Realization Concept:** This concept establishes that the profit on a given transaction is recognized immediately when the goods is sold, and included same in the accounts of the business period to which the sale relates, and not until the cash is received or realized. Eze (2011).

8. **Matching Concept:** The concept holds that for a given accounting period, all earned revenue and all the expenditures incurred to generate the revenue be matched against each other to determine net profit or loss, and reported same for the period. It is an essential principle of accrual accounting which adjustments are imperative in final accounts.
9. **Objectivity Concept:** This concept holds that financial statements prepared for a given business should not be influenced or biased by the person or accountant preparing it. This requires independent judgement for fairness in its preparation.
10. **Periodicity Concept:** This demands that the business be divided into accounting or financial period which the business prepares its account. For example; Trading, Profit and Loss Account for the year ended 31st December, 2012. Or, Balance sheet as at 31st December, 2012. Whatever changes should be measured over the period.

Accounting Convention

These are the generally accepted approaches to the application of the accounting concepts explained earlier. These conventions are:

1. **Materiality Convention:** The principles hold that only items of material values are accorded their strict accounting treatment. However, items such as staples, paper-clip, a ruler cannot be considered materials and capitalized as assets, rather, they are expenses to be charged as such in the final account; profit and loss.
2. **Consistency Convention:** This holds that any method of accounting adopted by a business should be continuously applied from one period to another so that a comparison of accounting figures over time is meaningful.

3. **Prudence/Conservatism Convention:** This principle demands great care to be exercised in the recognition of profits while all known losses are adequately provided for during the accounting period. Here, income should not be anticipated. Profits and gains which will understate rather than overstate for the period should be considered and figure that will cause capital of the business to be shown at a lower amount rather than a higher amount should be chosen, if need be. Hanze and Berger (2010).

Departmental Accounts

These are the final accounts of an organization with two or more departments, prepared in a columnar, analytical or vertical order to show the performance or results of operation of each department during the business or accounting period. Mishra (2011).

Need (Reasons) for Departmental Accounts

1. To determine or ascertain the result of each departments
2. To determine the aggregate profits of all departments
3. To compare the results of the different departments
4. To know which department or line of goods or service to concentrate at the expense of less profitable ones.
5. To use the information in formulating policy or decision making
6. To simplify entries so as to save cost in recruiting clerical assistants or more accounts clerks for all departments.
7. To monitor the progress of each department. Ukoha, and Enogwe (2012).

Basis for allocation/apportionment of Income and Expenses

In order to ascertain the net profit or loss of each department, it is necessary to allocate or apportion the incomes and expenses for the accounting period on the following basis:

1. **In the ratio of purchases:** Carriage inwards, custom duties, warehouse wages, goods insurance, discounts received.
2. **In the ratio of floor space:** Rents and rates, repairs, maintenance and insurance.
3. **In the ratio of sales or turnover:** Carriage outwards, salesmen's commissions and salaries, discounts allowed, bad debts, packaging, advertising, and all sales related expenses/incomes. Ukoha, and Enogwe (2012).
4. **In the ratio of number of employees:** Salaries and wages, canteen rates and rents, staff welfare, staff uniform and insurance, medical expenses and staff related expenses.
5. **In the proportion to the volume of space occupied or number of electrical points:** Heating and lighting, electricity and power. Or, a separate metre is given to each department to ascertain its consumption rate.
6. **On equal basis:** Director's salaries, advertising, general expenses/insurance, depreciation of office equipment, etc. or where no basis of apportionment exists, the expenses can be apportioned equally.
7. **Income or expenses:** Specifically earned or incurred by a department should be allocated (credited or debited) to the affected department.

It should be noted that the application of the basis of allocation and apportionment of income and expenses is subject to the specific instructions of the examiner.

Methods of Depreciation

There are various methods of charging depreciation depending on the types of assets, time and management decision. The methods include fixed instalment, diminishing balance, sum of the years' digits, revaluation, market value, annuity, sinking fund, unit of output, depletion and insurance policy. Only the first two methods are considered here for the purpose of this research work. Raymond and Ogumbameru (2012).

Fixed Instalment Method

This is a method of charging depreciation which allows for an equal, or a fixed amount to be charged as depreciation yearly throughout the life of the asset. This fixed amount (depreciation) is debited to profit and loss account and credited to provision for depreciation account in each accounting period. It is otherwise called straight-line or equal instalment method.

Formula: $\frac{\text{Cost} - \text{Salvage value}}{\text{Estimated useful life}} =$ Annual Depreciation charge

Illustration: A motorcycle was bought on 1st January, 2010, for N50,000 with estimated life span of 4 years; at the end of which the motorcycle was expected to have a residual value of N10,000. Show the accountings using straight-line method.

Annual depreciation charge $= \frac{₦50,000 - 10,000}{4} = \frac{40,000}{4}$

$= ₦10,000$

The following accounts in this regards should be prepared:

a) Asset Account

b) Provision for Depreciation Account

c) Profit and Loss Account

d) Balance Sheet

Diminishing Balance Method

This is a method whereby a fixed rate or percentage for depreciation is deducted from the cost in the first year and subsequent years such that different amount will be charged as depreciation each year with higher amount at the early life of the asset. It is also called reducing balance method. Ukoha, and Enogwe (2012).

Where the percentage is not given, the basic formula to find it for application is:

$$r = 1 - \sqrt[n]{s/c}$$

Where r = rate of depreciation to be applied:

n = number of years of useful life of asset

s = scrap, residual, disposable or salvage value

c = cost of the asset.

Illustration: A machine was bought on 1st January 2006 for ₦12,500 with estimated life of 4 year and at the end of which it will be sold as residual value at N5,120. Show the necessary accounts using diminishing balance method. To determine the fixed percentage or rate of depreciation to apply, using the basic formula:

$$r = 1 - \sqrt[n]{s/c} \times \frac{100}{1}$$

$$r = 1 - \sqrt[4]{\frac{5120}{12500}} = 1 - \sqrt[4]{(0.4096)} \times \frac{100}{1}$$

$$= 1 - 0.8 = 0.2 \times \frac{100}{1} = 20\%$$

$$4\sqrt{\frac{5120}{12500}}$$

The ledger entries have the same format with fixed instalment method by preparing:

a) Asset Account

b) Provision for Depreciation Account

c) Profit and Loss Account, and

d) Balance Sheet extract; using the values calculated with diminishing or reducing balance method.

Provision for consumption of tangible assets such as plant and machinery, fixture and fittings, buildings and premises, motor van, etc is Depreciation. The provision for the consumption of intangible and pre-determined useful life assets such as goodwill, leases, patents, and copyrights, etc is called Amortisation. Here, cost of intangible asset is divided by established period of benefit. Okebukola (2000) While provision for the consumption of assets of wasting character such as natural resources (mines, quarries oil wells, timber, etc is known as Depletion. The amount of depreciation in this case (depletion method) in a year is a function of the quantity extracted in the year compared to the total resources.

Trading, Profit and Loss Accounts

There are the final accounts prepared during the end of accounting period based on double entry principle, to determine the gross and not profits or losses respectively of the business for the period. They are final accounts prepared before the balance sheet to determine the profit or loss positions of the business organization for a given accounting period. There are two parts of the accounts here joined together.

Trading Account: This is the account prepared to show gross profit or loss of business transactions during the business period. The items of trading account include stocks, purchases, returns outwards, carriage inwards, cost of sales, gross profit on the debit side and sales, returns inwards on the credit side of the account. Sales less cost of sales provide for gross profit. Regeluh (2010).

Profit and Loss Account: This is part of the final account prepared before a balance sheet to determine net profit or loss of a given business transaction during the accounting period. The excess of gross profit over administrative, selling and distribution expenses, financial charges, ascertains net profit while reverse is net loss. The items of profit and loss account include expenses such as rent, rates, insurance, repairs, sundry or general expenses, carriage outwards, advertising, salaries and wages, bad debts, discounts allowed, bank charges depreciation, etc on the debit side; and gross profit from trading account section, interest received, rent received, commission received, discount received, decrease in provision for bad and doubtful debts, etc on the credit side.

The form of final accounts for an organization varies according to the nature of activity of the business and the entity accounted for, example sole proprietorship, partnership, Limited Liability Company; be it trading or manufacturing concern (Longe, 2010). To ensure the principles of accrual and matching concepts compliance, all necessary adjustments are effected in the final accounts. These include payment in advance (Pre-paid expenses), accrued or expenses owed, provisions for bad and doubtful debts, depreciations, etc. The format for preparing the trading, profit and loss account can either be "T" or vertical format (method) depending on the choice by an organization.

The following are balance sheet items found in the trial balance and under no circumstance should they be entered in the trading, profit and loss account: capital, motor vehicle, debtors, drawings, creditors, premises, cash in hand, furniture and fittings, and bank deposit. It is only depreciation on assets that is charged to profit and loss account as an expense on the debt side of the account. (See illustration on Trading, Profit and Loss Accounts in Appendix 6).

Profit and Loss Account Ratios

Accounting ratios are the expression of value relationships in percentage, numbers of figures to serve as indications to study, measure, appraise and interpretation business' liquidity, activity, profitability and coverage of obligations, Igben (2013) defined accounting ratio as a proportion or fraction or percentage expressing relationship between one items in a set of financial statements and another in the same financial statement.

Uses of Accounting Ratios

(i) They are used to compare two or more sets of accounts

(ii) Ratios assist management in the formulation of future plans

(iii) Ratios enhance the management to ascertain business trends

(iv) Ratios help in preparation of budgets estimate

(v) They provide the basis for measurement, appraisal and interpretation of accounts for the users of accounting information.

(vi) They are used in preparing industrial averages.

(vii) Ratios help to measure the ability of the entity to meet its short-term objectives.

Classification of Accounting Ratios

Ratios in accounting may be classified into two broad groups – Trading, Profit and Loss Ratios and Balance Sheet Ratios. These two groups are affected by the following types of ratios – profitability and efficiency ratio, liquidity ratio and investment ratio Regeluh, (2010).

(1) **Average stock:** This is opening stock plus closing stock divided by two, i.e. opening stock + closing stock ÷ 2

$$= \frac{28{,}000 + 22{,}000}{2} = \frac{50{,}000}{2}$$

= ₦25,000

(2) **Stock turnover ratio:** This is used to measure the number of times stocks are replaced in a given period. It is cost of sales divided by average stock.

$$\frac{\text{Cost of Sales}}{\text{Average stock}} = \frac{150{,}000}{25{,}000} = 6 \text{ times}$$

(3) **Gross profit to sale ratio:** This ratio shows the average gross profit on goods sold or turnover. It is show profit relative to sales after deducting direct costs.

$$\frac{\text{Gross Profit}}{\text{Sales}} \times \frac{100}{1} = \frac{50{,}000}{200{,}000} \times \frac{100}{1} = 25\%$$

(4) **Net profit to sale ratio:** This ratio expresses the relative profitability of the business after taking into account all incomes and expenses. Here, extra ordinary income and expenses are excluded to avoid distortion.

$$\frac{\text{Net Profit}}{\text{Sales}} \times \frac{100}{1} = \frac{10{,}000}{200{,}000} \times \frac{100}{1} = 5\%$$

The ratio is an indicator of the business' ability to withstand adverse conditions which may arise from falling prices, rising costs and declining sales.

(5) **Expenses ratio:** This ratio shows the relative weigh of each item of expense in relation to total expenses.

$$\frac{\text{Individual expenses}}{\text{Sales}} \times \frac{100}{1} = \frac{15{,}000}{40{,}000} \times \frac{100}{1} = 37.5\%$$

(6) **Expenses to sales ration:** This ratio helps to highlight the sources of the improvement or deterioration in the net profit to sale percentage.

$$\frac{\text{Individual expenses}}{\text{Sales}} \times \frac{100}{1} = \frac{15{,}000}{20{,}000} \times \frac{100}{1} = 7.5\%$$

(7) **Mark-up:** This is a profit expressed as a percentage of cost price.

$$\frac{\text{Profit}}{\text{Cost price}} \times \frac{100}{1}$$

(8) **Margin:** This is a profit expressed as a percentage of selling price

$$\frac{\text{Profit}}{\text{Selling price}} \times \frac{100}{1}$$

(1) **Capital owned:** This is the net worth of the business. It is capital plus net profit less drawings. Or, total asset less total liabilities. Capital owned in the balance sheet is N100,000.

(2) **Capital Employed:** This is the total asset (fixed and current) less current liabilities. In the balance sheet, it is N160,000.

(3) **Working capital:** This is current assets less current liabilities. N50,000 – 25,000, C = N25,000.

(4) **Current or working capital ratio:** This is the ratio of current assets to current liabilities. N50,000: N25,000 = 2:1. Low ratio indicates inadequate working capital while high ratio shows too much working capital. This ratio shows the extent by which a business can meet its current or short-term obligations.

(5) **Acid test, quick or solvency ratio:** This ratio expresses the relative amount of liquid assets that can be easily converted to cash that are available to meet current liabilities stocks deducted from current assets.

$$\frac{\text{Current assets - stock}}{\text{Current liabilities}} \times \frac{50{,}000 - 22{,}000}{25{,}000}$$

Or, Debtors + cash: Current liabilities

= 28,000: 25,000 – 1:0.12

(6) **Return on capital employed ratio:** This is a primary ratio which shows the overall profitability and efficiency of the business in relation to assets utilization.

$$\frac{\text{Profit}}{\text{Capital employed}} \times \frac{100}{1} = 10{,}000 \times \frac{100}{1} = 6.25$$

(7) **Assets turnover ratio:** This measures the turnover (sales) as a result of using the business assets.

$$\frac{\text{Sales}}{\text{Capital employed}} = \frac{200{,}000}{160{,}000} = 1.25$$

(8) **Stock to current assets ratio:** This ratio expresses the stocks as percentage of current assets

$$\frac{\text{Stock}}{\text{Current asset}} \times \frac{100}{1}$$

(9) **Debtors ratio:** This ratio measures the average period of debts collection. It indicates the credit period given to debtors.

$$\frac{\text{Debtors}}{\text{Credit Sales}} \times \frac{365}{1}$$

Long collection dates portrays weak and poor credit control

(10) **Credit ratio:** This ratio shows the average credit period received from suppliers.

$$\frac{\text{Trade creditors}}{\text{Credit purchases}} \times \frac{365 \text{ days}}{1}$$

Control Account

These are accounts in the general or nominal ledger to which items posted separately to individual accounts in a subsidiary ledger are grouped and posted in totals for debtors and credit respectively to reflect each total balance. Igben (2013) defined a control account as an account which contains the summary or total of entries in the individual account in each ledger. Control Accounts is otherwise called memorandum or Total Accounts. They are not necessarily part of the double entry system. They perform the function of a trial balance to a particular ledger (Longe and Kazeem, 2010). These total accounts are summarized into sales and purchases ledger or debtors and creditors control accounts as two main divisions of control accounts.

Sales Ledger or Debtors Control Account: This is the control account for the summary of all debtors which represents all entries posted to sales ledger.

Purchase Ledger or Creditors Control Account: This is the control account for the summary of all creditors which represents all entries posted to purchases or bought ledger.

Uses/Advantages of Control Accounts

1. It helps in the location of errors
2. It acts as deterrent against fraud
3. It assists in the speedy computation of aggregate balance with similar accounts.
4. It ensures division of labour in keeping the accounts to save time, money and labour
5. Control accounts ascertain debtors and creditors balances
6. It facilities the preparation of interim final account

7. Prompt decision making by management is possible as result of speedy information provided by control accounts.
8. It assists in the checking of the ledger clerk's or bookkeeper duties.
9. Debtors' and creditors' balances are easily and carefully calculated such that missing figures can be detected.
10. There is possibility in control accounts for contra entries or set-off against each other as a result of inter-indebtedness.
11. A control account, like trial balance serves as a check on the accuracy of the entries in the ledger to which it relates.

Principles of Control Accounts

If opening balance is given, total of entries that goes to increase the balance will be added while total of entries that goes to reduce the balance will be subtracted to have the closing balance of debtors and creditors respectively.

Teaching of Financial Accounting in Nigerian Secondary Schools

Many studies (Raux and Smith, 2007, Bonwell and Eison, 1991, Meyers and Jones, 1993, Raux, 2004, Smith and Meador, 2001) have shown that students retain more information when active learning is utilized in the classroom. Additionally, professional organizations and professional and corporate employers indicate that they prefer to hire students that can learn actively, can think critically, and are adept at the second-level learning skills (critical thinking, communication skills, interpersonal skills, technical skills, and analytical skills).

The Federal Republic of Nigeria (2004) stated the broad goal of the secondary school education is to prepare individuals for: "useful living within the society and higher

education". To achieve this objective, 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 school are in three groups – core subjects, vocational and non-vocational subjects. One of the vocational subjects is Financial Accounting.

According to Asaolu (2002:106), "Financial accounting is the process of recording, classifying, selecting, measuring, interpreting, summarizing and reporting financial data of an organization to the users for objective assessment and decision making." Accounting data are processed into accounting information through the use of accounting principles and conventions. The accounting principles are known as "generally accepted accounting principles." They are the basic fundamentals which guide accountants in recording, appreciating and assessing accounting information as well as the preparation and interpretation of financial statements. The accounting information system is proven, time honored, and its format is universally understood. Books of accounts prepared by accountants in one part of the world are easily understood by their counterparts in other parts of the world because the information system is based on principles that are widely accepted and globally used. According to the National Examination Council (NECO 2004), the objectives of studying financial accounting at senior secondary school are as follows:

1. To enable senior secondary school students appreciate the basic rules, functions and principles of accounting

2. To lay proper foundation for further study of accountancy and allied courses at higher level and
3. To enable the students understand basic accounting principles, practice and their applications to modern Business activities.

To achieve the above stated objectives, financial accounting teachers employ various instructional methods in the classroom. According to Cantrell (2004), teaching methods are in a continuum, ranging from exposition to inquiry.

The exposition method of teaching is conventional and widely used in the classroom. Also, Cantrell (2004) reported the characteristics of exposition method to include the following: leader-centered, leader-active, learner passive and content emphasis. Examples of exposition methods are lecture, discussion, traditional demonstration, guest speaker, panel discussion, storytelling, dramatization, and reading of textbooks, manuals or handouts.

The inquiry method is an approach where the learner generates his/her own form of information. It is characterized by the following features: learner-centered, leader-facilitated, learner-active and learning process emphasis.

In general, exposition is considered to be leader centered with an emphasis on content delivery while inquiry is considered learner centered with the emphasis on the process of learning. In a typical learning situation this suggests that for exposition, the leader is actively involved (for example lecturing, reading aloud, showing a video) and the learner is passively taking in the information (for example listening, reading an overhead, watching a video).

In contrast, learners engaged in inquiry are actively involved (for example: conducting investigations, processing information and data) while the leader's role is to help facilitate the process of learning (Cantrell 2004). Examples of inquiry methods are guided discovery, problem solving and inquiry methods. Guided discovery learning is a method of learning that has the advantage of allowing learners to use process skills to generate content information. It actively engages learners in first hand real world learning. It encourages learners to explore the content through the use of concrete experiences. Teachers are released from the role of authority and giver of knowledge to become facilitator and fellow investigator. This replaces the notion that the teacher must know all the answers.

Graphic representation such as maps, time tables, flow charts which depict the sequencing of learning activities (Advance Organizer) and other such devices are effective way for teachers and text book authors to promote discovery learning.

History of Instructional Model

Instructional models are the planned strategies and methods adopted in the teaching/learning process to enhance students' academic achievements in a particular subject and as well eradicate learning difficulties. Instructional model was propounded by Robert Mills Gagne in the year 1916. Instructional models are the strategies and methods adopted in the teaching-learning process by the teacher and the students that are objective oriented to bring about expected learning goals. These goals may include acquisition of knowledge skills, competencies and the right interests and attitudes towards a particular subject in financial accounting.

Instructional model according to William (2012), has been described as student-centred teaching/learning package where learning experiences involved interpretation of occupational needs to students and assisting students to acquire occupational knowledge and skills. William stated that instructional models have the following twin objectives:

1. Integrating academic and skill learning by employing vocational preparation as the principal vehicle for the inculcation of basis learning skills. In this way learning could be made more palatable to many students who otherwise have difficulties in seeing the value of general education.
2. Exposing the students to an understanding of the real would, through series of experiences which capitalize on the universal desire of youths to investigate for themselves. The objectives are what jigsaw and guided inquiry models drive to achieve as against the conventional expository model.

According to Ukegbu and Anuonye (2012), the emergence of communication revolution and its effective application in classroom setting has added a lot of value to teaching-learning process. The traditionally conservative "talk-chalk method is now giving way to a more flexible and creative formats for teacher-student interaction. Ike and Iwu (2012) cited in Ukegbu and Anuonye (2012) felt that to improve teacher-student relationship, teaching procedure should be varies from the traditional method towards techniques to generate motivation, interest and involvement, especially where the learner is expected to master concepts or problem-solving skills. This is applicable to teaching of financial accounting using innovative instructional models to achieve the said aim. He further added that the appropriate application of the new communication media and allied technologies will make the most dramatic changes in the pre-primary, primary, post-primary and tertiary institutions. With jigsaw models, the application of new

communication media and allied technologies is made easier. The board objective of innovative techniques or models such as jigsaw and guided inquiry, according to Ike and Iwu (2011) in Ukegbu and Anuonye (2012), is to enhance effectiveness and efficiency of the education in its entirety, specifically, reasons adduced by them include:

(1) Equipping teachers with the skills, competences and knowledge needed for improving performance.

(2) Providing interactive and other form of participatory learning

(3) Providing education that is appropriate to the needs of and demands of the society in which the teaching-learning takes place.

(4) Providing alternative modes of instruction.

(5) Making learning fun, provocative, exciting and interesting.

(6) Motivating learners to learn more and providing ways for the evaluation of new instructional or educational system.

There are many instructional models that are in used in the Schools cutting across all the levels of teacher education and aimed at improving effectiveness and efficiency in instrumental processes. These include guided inquiry model, demonstration and activity models, discussion and lecture models, team teaching and micro-teaching models, jigsaw concept mapping, time lines modes, individual and group instruction models, role and simulation models, discovery model, cooperative and participatory learning models, scaffolding model, information processing model, etc. Marzono (2012) identified eight instructional models, designed to help students learn content and develop thinking skills. These are integrative model, social interaction model, direct instruction model and lecturer-discussion model. All the models used are classified by many researchers into

two groups-teacher-centred approach and student-centred approach (Akpan, 2011; Ibe, 2011; Edet, 2013; Ntuk, 2014 &Nsa, 2015).

The teacher-centred approach is the age-long conventional and widely used methods in the classroom. The researcher referred to it as "text-board-talk and chalk". The characteristics of this approach according to Yusuf (2015), include the following; teacher-centred, teacher-active, learner-passive and content emphasis. Yusuf described the teacher-centred, as expository methods which are lecture, discussion, traditional demonstration, guest speaker, panel discussion, storytelling, dramatization and reading of textbook manuals and handouts. However, Yusuf observed that this teacher-centred approach should be replaced by learner or student-centre, learner-facilitated, learner-active, and learning process not content emphasis. In the new approach, the student-centred, employs guided inquiry, feedback and remediation which the teacher is looked upon as facilitator and mainly provides his service in form of guidance to students (Jayaprakash, 2011).

This modern paradigm shift from conventional approach to modern approach (student centred), allows room for students to develop accounting skills at their own pace and seek information as much as required, thus providing opportunities for self development. Accounting education incurred rapid changes during the 1990s and all level of education constantly adopted their course materials to suit the workforce and external environment in which one lives (Jayaprakash, 2012 in Sampsell, 2013). To incorporate broader based skills and competencies with technical knowledge which include, critical thinking, communicated team work, ethical awareness, technological competence and independent learning, accounting education curriculum is constantly facing a lot of changes and innovations, these change can be noticed in the subject title from Accounts.

Principles of Accounts, Bookkeeping and Accounts to the present financial Accounting by various examination bodies such as West African Examination Council (WAEC), National Examination Council (NECO), National Business and Technical Examination Board (NABTEB) same changes are applicable to the curriculum contents of the subject.

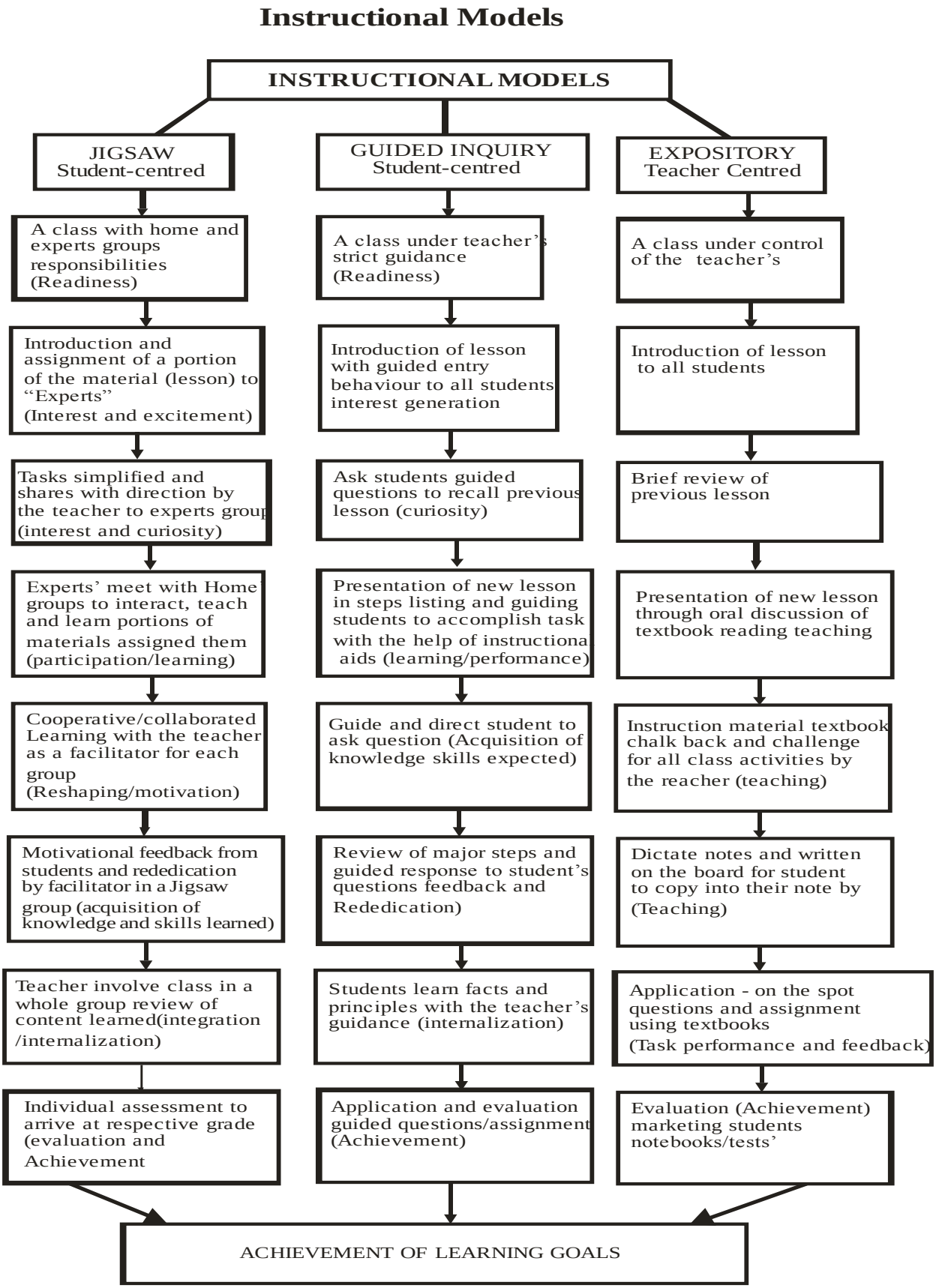

Fig. 1: Schematic diagram of jigsaw, guided inquiry as against expository instructional model

Source: State Secondary Education Board, Uyo (2014)

Jigsaw Model

In the late 1950s, America was going through desegregation of public schools. In 1954, *The Brown v. Board of Education decision of the Supreme Court of the United States* created a legal requirement of integration of public schools by ruling that separating schools made them inherently unequal. Actual integration was a painful process, taking years.

Schools were plagued with fights, discrimination, and hate crimes. White supremacist groups and hateful white students terrorized new students. This prevented students from feeling safe in their schools and harmed all their learning abilities. Students often could hardly sit in the same together without incident, much less work together. This created a problem for teachers, students, parents, communities, and the country alike, as an entire generation of students were distracted from learning by rampant hatred and discrimination.

It was this time that psychologist were pulled in to advise schools on what to correct this problem. In 1971, Dr. Elliot Aronsons was hired to advise an Austin, Texas school district on how to defuse the problems of hostile classrooms and distrust between the students. Aronson was a psychologist at the University of Texas at Austin at the time, and took a psychological approach to help fix the problems in the classrooms. Competition among students had become extremely high. It was quickly realized that the competitive nature of the classroom encouraged students to taunt each other and discriminate against those different than them, so that they might vault themselves higher in status. In order to counter this problem, students were placed in diversified groups so that they would be required to work together and reduce the competitive atmosphere. Atmosphere for increased collaboration and reduction of the resistance to work with one

another. Aronson attention and obtain much information from other group members. This allows for each members of the group to add a small piece of the larger picture so that they are all important to the group. This teaches the students to rely on each other and reduces their competitive attitudes toward each other because they need everyone in their group to do well because their grade depends on the other student.

Professor Elliot Aronson a social psychologist developed and applied jigsaw technique in 1971 at Austin, Texas; as he was confronted with a problem. Student's competition became high and lows abolishing desegregation had just been passed. This event did not occur without turmoil. Students were having difficulty or abusing to the mixing of ethnicity in the classroom. In Austin, for example, prior to 1954, the law of the land was "separate but equal". Unfortunately, there was plenty of separation, but very little equality that is, schools in the neighbour hoods that housed most ethnic minorities was not providing the same quality of education that was being offered in most middle-class white neighbourhoods. Consequently, just before the bussing programme", the knowledge, reading skills, intellectual curiosity, and ability to compete in cognitive skills of most minority-group youngsters was inferior to that of their more privilege counterparts. According to Aronson and Patnoe (2011), this inequality still exists.

Arongon developed an idea to create an atmosphere for increased collaboration and reduction of the resistance to work with one another. Aronson created assignments that made every members of the group equally important. The students had to pay attention and obtain information from other group members. The diversity made it hard at first, but each student's grade depends on their ability to work with others (Lestik and Pious, 2012). Aronson and his colleagues changed the basis structure of one expert (the teacher) and thirty listeners. This according to Aronson was accomplished by placing the

students in small groups of five or six students each. The role of the teacher was changed so that he or she was no longer the major resource for each of the learning groups by creating a process that make it imperative than the students treat each other as resources. This according to Aronson was achieved in three ways:

(1) The learning process was structured so that individual competitiveness was incompatible with success.

(2) It was certain that success could occur only after cooperative behaviour exist among the students in a group.

(3) Each student (no matter her prior status in the classroom) was in a position to bring to her group-mates a unique gift of knowledge (i.e. a piece of vital knowledge that was not readily available except from that student).

From an account of Aronson he and his colleagues observed that the students worked individual and competed against each other for grades. Here is a description of a typical fifth grade classroom they observed; the teacher stood in front of the class, asked a question, and waited for the children so that they know the answer. Most often six to ten youngsters raised their hands, lifted themselves off their chairs and stretched their hands as high as they could in an effort to attract the teacher's attention. Several other students sat quietly with their eyes averted, hoping the teacher did not call on them. When the teacher called on one of them eager students, there were looks of disappointment on the faces of other students who had tried to get the teacher's attention. If the selected student came up with the right answer, the teacher smiled, nodded approvingly, and went on to the next question. In the mean time, the students who did not know the answer breath a sign of relief they had escaped being humiliated this time. It took only a few days of observation and interviews for Aronson and his colleagues to see what was going on in

this classroom. They realized that they needed to shift the emphasis from a relentlessly competitive atmosphere to a more cooperative one. It was in this context that Aronson and his colleagues invented jigsaw strategy. The first intervention was with the fifth graders. The success of jigsaw was obvious in many schools (Lestik and Pious, 2012).

According to Mengduo and Xiaoling (2010), jigsaw is a cooperative learning technique that has been studied in various ways by a number of researchers and teachers in classes of different levels and subjects. These researchers found out in their studies and drawn conclusion that jigsaw technique is an effective way to promote students participation and enthusiasm as well as a useful technique for language learners to accomplish learning tasks (achievement) in the English language classroom.

Aronson (2011) provided ten easy steps to follow to a jigsaw model by the teacher:

1. Divide students into 5, 6, or 10-person jigsaw groups depending on the size of the class. The group should be diverse interms of gender, ethnicity, race and ability.
2. Appoint one student from each group as the leader, initially this person should be the most mature student in the group.
3. Divide the days lesson into the number of jigsaw groups.
4. Assign each student to learn one segment, making sure students have direct access only to their own segment.
5. Give students time to read over their segment at least twice and become familiar with it.
6. Form temporary “expert” group by having one student from each jigsaw group join other students assigned to them to the same segment. Give students in these

expert groups time to discuss the main points of their segment and to rehearse he presentations they will make to their jigsaw or home group.

7. Bring the students back into the jigsaw groups.
8. Ask each student to present his or her segment to the group. Encourage others in the group to ask questions for classification. Float from group to group, observing the process. If any group in having troubled (e.g. a members is dominating or disruptive), make an appropriate intervention eventually, it is best for the group leader to handle this task. The leaders can be instructed on how to intervene.
9. At the end of the sessions, give a quiz on the material or lesson so that students quickly come to realize that these sessions are not just fun and games but really count (Aronson, 2011).

Millis and Cottell (2011) opined that the jigsaw structure promotes positive interdependence and also provides a simple method to ensure individual accountability. Millis and Cottel illustrated jigsaw structure with four collaborative groups, each with four students thus:

Group A: Student 1A, 2A, 3A, 4A.

Group B: Student 1B, 2B, 3B, 4B.

Group C: Student 1C, 2C, 3C, 4C

Group D: Student 1D, 2D, 3D, 4D.

All the students with number 1 form focus group one and are given the same concepts or sub-topic to master. While students with number 2 form focus group two and are given a different concept or sub-topic to master, and so on. These temporary focus groups become experts in the section given them and develop a strategy to explain their understanding to their original group member when the focus groups are through with

their assigned work; the original collaborative learning groups (group A) re-assemble. The students then teach and interact with one another the sections they have worked on. It ensure individual accountability, the students can be evaluated on all sections of the task (Millis and Cottel, 2012).

Clark (2011) presented the jigsaw structure in stages and discusses several variations of the jigsaw structure including different group sizes and different state implementation. These stages can be summarized as;

Stage 1: Introduction of the topic to the class as a whole.

Stage 2: Focused first struggles with the section. They have been assigned.

Stage 3: Reporting and shaping: the student return to their original groups and instruct their teammate base on their findings from the focus groups.

Stage 4: Integration and evaluation: the team connects the various pieces generates by individual members, addresses new problems posed by the teacher (facilitators) or evaluates the groups product. Johnson, Johnson and Hombee (2014) put forward five principles for jigsaw strategy:

(a) **Positive interdependence:** Each group member's efforts are required and indispensable for the group success.

(b) **Face-to-face promotive interaction:** Group members have to orally explain how to solve problems, teach one's knowledge to others, check for understanding discuss concepts being learned and associate the present learning with the past one.

(c) **Individual and group accountability:** Based on the size of the groups, the teacher is expected to give an individual test to each student, randomly examine students by asking one student to present his or her group's work orally to the

teacher (in the presence of the group) or to the entire class, observe each group and record the frequency with which each member contribute to give an individual test, to each student, randomly examine students by asking one student to present his or her group's work orally to the teacher (in the presence of the group) or to the entire class, observe each group and record the frequency with which reach member contributes to the groups work, appoint one student in each group as the leader, who is responsible for asking other group members to explain the rationale underlying the group answers, and monitor students to teach what they have learned to others.

(d) **Interpersonal skills:** Social skills are a necessity for the success of jigsaw learning in class. Social skills include leadership, decision making, trust-building, communication, conflict management skills, and so on.

(e) **Group processing:** Group members discuss how well they are achieving their goals and maintaining effective working relationships, describe what member actions are helpful and what are not, and make decision about what behaviours to continue or change. According to Mengduo and Xiaoling (2010), studies showed that it was only under certain conditions that cooperative efforts may be expected to be more productive than competitive and individualistic efforts.

Guided Inquiry Model

Guided learning was developed by Joseph Schwab in 1960. It is a based learning primarily pedagogical method, developing during the discovery learning movement of the 1960s as a response to traditional forms of instruction – where people were required to memorize information from instructional materials. In the 1960s Joseph Schwab called

for inquiry to be divided into four distinct levels. This was later formalized by Marshall Herron in 1971, which developed the Herron Scale to evaluate the amount of inquiry within a particular lab exercise. The philosophy of inquiry based learning finds its antecedents in constructivist learning theories, such as the work of Piaget, Dewey, Uygotsky, and Freire among others, and can be considered a constructivist philosophy. Generating information and making meaning of it based on personal or societal experience is referred to as constructivism. Dewey's experiential learning pedagogy (that is, learning through experiences) comprises the learner actively participating in personal or authentic experiences to make meaning from it. Inquiry can be conducted through experiential learning because inquiry values the same concepts, which include engaging with the content/material in questioning, as well as investigating and collaborating to make meaning. Vygotsky approached constructivism as learning from an experience that is influence by society and the facilitator. The meaning constructed from an experience can be concluded as an individual or within a group.

According to Ugwuanyi in Akpan (2014) inquiry is a successful experience that reinforces the appropriate attitude and value. A learner is active in inquiry learning to be self-sequenced, goal directed with goal perceived and the pace self-determined while Nwagbo (2012) citing Akpan explained that inquiry learning mode which is an approach to enquiry on the other hand, the teacher provides illustrative materials for student to study on their own. Leading questions are then asked by the teacher to enable students think and provide conclusion the adoption of the processes of sciences. Nwagbo as cited in Akpan believed that if the learner is allowed to discover relationships and method of solutions by himself through inquiry, make his own generalizations and draw conclusion

from them, such a learner will be better prepared to make wide applications of material learned and remain active in the transfer of learning when the need arises.

Inquiry based models provide concrete active learning experiences, they also give students the opportunity to develop the initiative problem solving , decision –makings and research skills needed to become life-long learners. When students are provided with appropriate experiences they can use these skills and habits of minds to construct their own knowledge bases (Siddiqui, 2011).

Expository Method

The history of expository was developed by Werner Liepolt, Barbars Szepesi and Jack (1941) in a school where a large number of students in the fourth grade performed poorly on the writing portion of a new state exam. The writing portion of the exam tested expository writing skills. In the elementary writing program, however, the teachers had focused mainly on fiction story-writing skills, and they had not provided instruction in expository wiring. Samples of the students' responses questions that asked for them to "explain" or "show" frequently started with phrase, "Once upon a time." Working with a curriculum coordinator, the teachers worked to incorporate expository writing into the second, third, and fourth grades.

Each student was required by the teacher to produce a piece of expository wiring based on observation and questioning of a docent at a local historical society. The teacher asked each student to research and write about a specific historical artefact, working from a list provided by the historical society. Using the school's digital camera, the teacher took a picture of each artefact and handed out printed pictures to the students. These pictures were later displayed alongside the final essays.

This assignment was a direct response to students' poor performance on the state test. It was also designed to serve as a practice arena for future, on-demand performance testing. Using the Mid-Continent Research for Education and Learning Database, the teacher found that her performance assessment met several additional standards.

The students demonstrate competence in the general skills and strategies of the writing process. Students write expository compositions (example identifies and stays on the topic; develops the topic with simple facts, details, examples, and explanations; excludes extraneous and inappropriate information). The structure of an expository lesson helps students to stay focused on the topic at hand. Often times, when students are discovering information on their own, they can get distracted and confused by unnecessary information and have difficulty determining what's important. This is why expository instruction is one of the most common instructional strategies. Expository teaching is a teaching strategy where the teacher presents students with the subject matter rules and provides examples that illustrate the rules. Examples include pictorial relationships, application of the rules, context through historical information, and prerequisite information.

In expository method, most of the instruction is under the direct guidance of the instructor, much of it is more or less independent effort of the student. This traditional method of instruction view students as empty vessels into which the teacher can pour information that the students will immediately understand, remember, and be able to apply to novel situation (Siddiqui, 2010). Examples of expository models are lecture discussion, traditional demonstration, quest speaker, panel discussion, story-telling, dramatization, and reading of textbooks, manuals or handouts (Cantrell, 2012 cited in Raymond and Ogunbameru, 2013).

This approach is referred to as the “talk and chalk” (text-board-talk and chalk) method that can only lead to easy converge of school syllabus without considering learners’ characteristics. The teacher stand most of the time verbal explanations in the form of talk and chalk while students listen and write notes from chalkboard (Yusuf, 2011, Akpan, 2012).

In the teaching of financial accounting, the researcher describes the methods a “text-board-talk and chalk” the regular practice of the accounting teachers using accounting textbook, writing on the board, talking to the students and asking the accounting students to write dictation or copy the notes from the board. These predominant teaching models are inadequate, less desirable, outdated, and are in vogue, a situation where the teacher uses a lesson to direct the students through given sequence of lectures and other verbal explanations and demonstration (Ezeani, 2013, Akpan, 2014) Ntekin, 2013, Ibe, 2014, Kavanagh and Drennan (2011) stated that current teaching models place little emphasis on development of students’ professional accounting competencies.

Benefits of Instructional Models in Teaching and Learning Jigsaw

The following are some of the benefits of the jigsaw strategy according to Bafile (2012).

1. Students are eager participants in the learning process and are responsible for the work and achievement while being held accountable by their peers.
2. Students have more chance to appreciate differences and share experience through individual participation and instruction.
3. The jigsaw classroom stimulates students’ motivation and increases enjoyment of the learning experience and promotes a greater deal of negotiation for meaning.

4. The jigsaw classroom reduces students' relevance and anxiety to participate in the classroom activities while increasing self-esteem and self-confidence.
5. Jigsaw is an effective strategy to integrate various learning skills with the teacher no longer the sole provider of knowledge.
6. When it is well designed, jigsaw tasks are challenging and engaging while students enjoy wrapping their minds around a problem with the help of their peers.
7. Jigsaw provides timely feedback and remediation in the learning process.
8. It is possible to integrate other instructional strategies with the jigsaw model for possible learning outcome to be achieved.

A jigsaw teachers goal is having students regard each other as learning resources rather than depend solely on instructor and leader, in a jigsaw situation, teaching can be an exciting change of pace four a student. It frees a student from being a more or less passive reacceptance of information and allows the students opportunity to try a new skill. The learning, in addition to producing psychological benefits, is frequently more thorough (Clark, 2013).

Jigsaw is a well-established method of encouraging group sharing and learning of specific content. This technique can be used as an instructional activity across several days and is best to use when there is a large amount of content to teach. Jigsaw helps students learn cooperation as group members share responsibility for each other's learning by using critical thinking and social skills to complete the assignment. Subsequently, this strategy helps to improve listening, communication, and problem solving skills.

Monitoring each student's participation within the groups provides teachers with information about how much the students already know about the topic. This allows teachers to tailor instruction accordingly. Generally, Jigsaw has the following benefits:

1. Equipping teachers with the skills, competences and knowledge needed for improving performance, Bafile (2011).
2. Providing interactive and other form of participatory learning, Sims (2012)
3. Providing education that is appropriate to the needs and demands of the society, Udoudom and Umoh (2014).
4. Providing alternative modes of instruction, Clark (2014).
5. Making learning fun, provocative, exciting and interesting, Arinson (2013).
6. Motivating learners to learn more and providing ways for the evaluation of new instructional or educational system, Millis and Cottles (2015).

Guided Inquiry

Guided inquiry as a method or instructional delivery has the following benefits to both the teacher and the students. Guided inquiry learning as posited by Omwirhiren (2012) has the following benefit of increasing student ability to organizing and classifies information as follows:

1. Encouraging curiosity, presenting a problem or puzzling event situation which stimulate interest, Nwagbo as cited in Akpan (2014).
2. Helping students understand the structure of the new information by checking with the student to ensure that they understand the problem, event of situation, Siddiqui (2010).
3. Structuring of the lesson to develop specific predetermined generalization, thereby limiting the number of generalizations developed (Guided inquiry), Akpan (2014).

4. Identifying general problems of questions but not specific generalization to be developed, thereby allowing on unlimited numbers of generalization (unguided inquiry), King cited in Edet (2013).
5. Providing and structuring appropriate materials, equipment, data, classroom environment etc. French and Coppage (2011).
6. Assigning activities that are problem oriented and providing introduction about whether student work individually or in group, Sang and Osman (2009).
7. Either acting as class leader throughout the lesson and asking only initial questions and suggesting activities which will lead student describe generalization (guided inquiry) or asking only initial questions, student interact with material and each other without further teacher's guidance (unguided inquiry), Alberechi and Sack (2011).
8. Eliciting observations and generalizations in the whole class discussions or encouraging individual or small group sharing, Ogwo (2015).
9. Observing and listening to student throughout the lesson, noting student activities, questions, hypotheses and processes which lead student to specific conclusions, Ugwuanyi (2012) and
10. Fostering intuitions thinking in the classroom, Muagra (2011).

According to Omwirhiren (2013), information imbibed through discovery becomes firmly embedded in the cognitive structures of the learners thereby facilitating retrieval. While Bastick (2013) observed that in guided inquiry approach teaching is effective as the approach maximizes student academic attainment as well as the teachers; and student subject satisfaction.

Many teachers continue to adopt the conventional models of teaching despite the attendant benefits and recommendation of guided inquiry. Reasons are not far-fetched. According to Siddiqui (2011) the teacher education, coupled with the fact that many of them are exposed to implement inquiry. Come teacher expressed concern that inquiry does not work for some students. The latter claimed that inquiry was not effective with bright students at the expense of lower ability students. Siddiqui however concluded that in-spite of these problems the evidence is that inquiry models of teaching are viable approaches to teaching and should be part of the teacher's repertoire. This therefore should be a fundamental part of teaching financial accounting in senior secondary schools for improved learners' performance and achievement (Alberecht and Sack, 2011).

Expository Method

Expository is an old method of instructional delivery used by teachers in imparting knowledge to the students. It is teachers centered content with the following benefits:

1. The models encourage the art of note taking which the student will find very useful when they start independents studies and research at the higher level, Jackling (2010).
2. The models encourage the student to read widely since they cannot possibly write down all that the teacher says and so would have many gaps to fill up through extra reading, Raymond and Ogunbameru (2012).
3. The models can be used to teach large classes, Mishra (2011).
4. There is economy of time and effort on the part of the teacher to cover the syllabus before external examination, Yusuf (2015).
5. The models supplements and enrich materials found in student's text books, Nsa (2012).

6. The models are effective methods for creating interest and appreciation, having a high inspirational and motivational value (Akpan (2011).

Empirical Studies

Empirical studies that are closely related to this study are reviewed in this section as follows:

Effect of Teaching Financial Accounting with Jigsaw Model

Umar and Abdulmutallib (2017) examined the effects of cooperative learning and guided discovery approaches on financial accounting achievement among secondary school students in Gombe state, Nigeria. A pre-test-post-test-control group design was adopted. One hundred and eighty students that participated in the study were selected randomly from nine schools. The students were divided into three equal groups, viz. cooperative, guided discovery (experimental groups) and conventional approach (control group), all at random. A Financial Accounting Achievement Test (FAAT) was used as an instrument for data collection. At the pre-test stage, the study found that there was no statistically significant difference in the achievement of students who were assigned to the cooperative, guided discovery and conventional teaching approach, the results suggested that at the start of the experiment the students were equal in terms of their achievements. However, at the post-test stage, the financial accounting achievement of students who were exposed to the cooperative approach was significantly better than the financial accounting achievement of students who were exposed to the guided discovery and conventional teaching approach. The finding suggested cooperative approach as an effective approach to enhance the financial accounting achievement of the secondary school students. It is, therefore, recommended that government should encourage both curriculum planners and secondary schools' teachers to adopt cooperative approach as an

instructional approach for teaching financial accounting in secondary schools to improve students' achievement in the subject.

Umar and Abdulmutallib's study is related to the present study because both focused on the effects of cooperative and guided discovery among secondary school students' achievement in Financial Accounting. Both studies differed significantly in geographical location. While Umar and Abdulmutallib's study focused on the effects of cooperative learning and guided discovery approaches on Financial Accounting achievement among secondary school students in Gombe state, Nigeria, the present study focused on the effects of Jigsaw method on achievement of senior secondary students in Financial Accounting in Akwa Ibom State.

Jimoh, Idris and Olatunji (2016) examined the effect of jigsaw cooperative learning strategy and gender on academic achievement of students' in cost accounting in colleges of education in Ogun State. The study adopted a 2X2 factorial design comprising of two groups (control and experimental) in their intact classes. Two research questions and three hypotheses, tested at 0.05 level of significance, were formulated to guide the study. The study population comprised 405 final year cost accounting students drawn from two colleges of education in Ogun State. Cost accounting achievement test (CAAT) is the instrument used for data collection. The CAAT and the lesson plans for both control and experimental groups were all validated by three experts. The reliability coefficient of the instrument was computed using cronbach alpha and was found to be 0.97. Mean was used to answer the research questions while Analysis of Covariance (ANCOVA) was employed to test the hypotheses. The results showed that cooperative learning method is more effective than the traditional lecture in the teaching of cost accounting. The study also revealed that gender did not contribute significantly to varying students' achievement

scores. The study recommends the adoption of jigsaw cooperative learning strategy in teaching cost accounting among other courses in colleges of education.

Jimoh, Idris and Olatunji's study is related to the present study because both focused on the effect of jigsaw instructional model on students' achievement. However, both studies differ in location. While Jimoh, Idris and Olatunji's study focused on the effect of jigsaw cooperative learning strategy and gender on academic achievement of students' in cost accounting in colleges of education in Ogun State, the present study focused on the effects of Jigsaw method on achievement of senior secondary students in Financial Accounting in Akwa Ibom State.

Effect of Teaching Financial Accounting with Guided Inquiry Model

Olorode and Jimoh (2016) examined the effectiveness of guided discovery learning strategy and gender sensitivity on students' academic achievement in Financial Accounting in colleges of education in Ogun State. The study adopted a quasi-experimental research design, specifically, non-randomized pre-test-post-test control group design comprising of two instructional strategies (guided discovery learning strategy and lecture method). Three specific purposes, two research questions and three null hypotheses, tested at 0.05 level of significance, were formulated to guide the study. The population for the study was all 466 200-level business education students drawn from two colleges of education in Ogun State. Financial accounting achievement test (FAAT) is the instrument used for data collection. The FAAT and the lesson plans for instruction in the two groups were all validated by three accounting education experts. The reliability coefficient of the instrument was computed using split-half reliability technique and it yielded a coefficient of 0.76. Mean was used to answer the research questions while Analysis of Covariance (ANCOVA) was employed to test the null

hypotheses. It was found that guided discovery learning strategy is more effective than the traditional lecture method in the teaching and learning of financial accounting in tertiary institution. The study also revealed that significant difference exist between the academic achievement of male and female students, taught financial accounting using guided discovery learning strategy. The study recommends among other things, the adoption of guided discovery learning strategy in the teaching and learning of financial accounting in tertiary institutions especially colleges of education.

Olorode and Jimoh's (2016) study is related to the present study because both focused on the effects on guided inquiry on students' achievement in Financial Accounting. The two studies differ in geographical location and type of institution. While Olorode and Jimoh's study focused on the effectiveness of guided discovery learning strategy and gender sensitivity on students' academic achievement in financial accounting in colleges of education in Ogun State, the present study focused on the effects of guided inquiry model on achievement of senior secondary students in Financial Accounting in Akwa Ibom State.

Eke, Mumuni and Nwanekezi (2016) investigated the effects of guided inquiry instructional and cooperative instructional strategies on SS1 students' academic achievement in conceptual understanding of Photosynthesis in Port Harcourt Education Zone of Rivers State, Nigeria. 186 students used for the study were obtained by purposive sampling based on the availability of science laboratory and biology teacher with not less than five years teaching experience. One class of Senior Secondary One (SS1) students from three Co-educational Senior Secondary Schools was randomly assigned to experiment and control groups. The instrument titled for Biology Achievement Test on Photosynthesis (BATOP) was developed, validated and used for data collection. The

research questions were answered with Mean and Standard Deviation; while the hypotheses were tested with ANOVA and ANCOVA. Result revealed that 5E guided inquiry instructional strategy proved to be more effective in the teaching and understanding of concepts of Photosynthesis than Cooperative Instructional Strategy and the conventional lecture method; Mean difference between GIIS and CIS= 4.016; GIIS and LM = 19.410. It was recommended that 5E Guided Instructional Strategy should be used to teach the concepts of Photosynthesis so as to improve male and female academic achievement in both internal and external examinations.

Eke, Mumuni and Nwanekezi's study is related to the present study because both focused on the effects of guided inquiry model on students' achievement. However, both studies differ in location. While Eke, Mumuni and Nwanekezi's study focused on the effects of guided inquiry instructional and cooperative instructional strategies on SS1 students' academic achievement in conceptual understanding of Photosynthesis in Port Harcourt Education Zone of Rivers State, Nigeria, the present study focused on the effects of guided inquiry model on achievement of senior secondary students in Financial Accounting in Akwa Ibom State.

Raymond and Ogubameru (2015) studied the effects of comparative analysis of two methods of teaching the subject-guided discovery and conventional (expository) methods. The population of the study comprised 820 senior secondary two (SS 2) financial accounting students in all the twenty two Senior Secondary Schools in Okitipupa Local Government Education Area of Ondo State in Nigeria. Purposive sampling technique was adopted and used in schools that have at least a stream of financial accounting SS 2 students with a least a graduate financial accounting educator. Chosen schools were randomly assigned to experimental and control groups while

students in the sample schools remained in their in-tact classes. Two types of instruments that were employed for data collection in the study were: Instructional Package for Financial Account (IPFA) and Financial Accounting Achievement Test (FAAT). Findings of the study indicated a difference in pre-test and post-test mean performance scores of students in control and experimental groups; and mean performance score of students taught with guided discovery method and those taught with expository method in financial accounting achievement post-test scores in favour of guided discovery method. The study also revealed no difference in the mean performance scores of male and female students taught with guided discovery and conventional methods of teaching respectively.

Raymond and Ogubameru's study is related to the present study because both focused on the effects of guided inquiry on students' academic achievement. Both studies differ in location. While Raymond and Ogubameru's study focused on the effects of comparative analysis of two methods of teaching the subject-guided discovery and conventional (expository) methods on secondary school students' achievement in financial accounting in Ondo State, Nigeria, the present study focused on the effects of guided inquiry model on achievement of senior secondary students in Financial Accounting in Akwa Ibom State.

Okoli and Nwosu (2011) conducted a study on the effects of the integrated instructional model on students' achievement in advanced financial accounting in Nigeria Universities employed a non-equivalent control group quasi-experimental design. The sample for the study comprised 537 final year students drawn from four universities in the South-East geopolitical zone of Nigeria through a simple random sampling technique. Three research questions and three null hypotheses tested at 0.05 level of significance guided the study. Accounting Achievement Test (AAT) was used to collect data while the

data were analysed using mean, standard deviation and analysis of co-variance (ANCOVA). The result showed that the Integrated Instructional Model (IIM) is superior to the conventional teaching method in enhancing achievement in advanced financial accounting. The study also revealed that IIM has no significant differential effect on the mean achievement scores of male and female accounting students. The test of interaction revealed that gender has no significant interaction with teaching methods on students' achievement in advanced financial accounting.

Okoli and Nwosu's study is related to the present study because both focused on the effects of guided inquiry model on students' academic achievement. However, the two studies differ in location. While Okoli and Nwosu's study focused on the effects of the integrated instructional model on students' achievement in advanced financial accounting in Nigeria Universities, the present study focused on the effects of guided inquiry model on achievement of senior secondary students in Financial Accounting in Akwa Ibom State.

Effect of Teaching Financial Accounting with Expository Method

Byme, Flood and Willis (2010) examined whether relationship exists between accounting student's approach to learning and their learning outcomes. The researchers used 95 first year management accounting students at the University of Dublin. The Approaches and Study Skills Inventory for Students (ASSIS) was used to measure the approaches to learning adopted by the sampled students. Students' learning outcomes were represented by their achievement in the various assessment components of that model. The analysis revealed that for the full group of ninety-five students tested, the deep and strategic approaches were positively associated with high academic achievement and the instrumental (surface) approach was identified with poor performance. However,

there was a significant positive relationship between the deep and strategic approach and the total assessment mark. The study found out that the academic achievement of experimental group before treatment differed from its academic achievement after treatment. And that the academic achievement of the student taught through routine method differed significantly with that of students in cooperating learning group.

Byme, Flood and Willis's study is related to the present study because both focused in the effect of guided discovery and expository method on students' achievement. Both studies differ in location. While Byme, Flood and Willis's study focused on relationship that exists between accounting student's approach to learning and their learning outcomes at the University of Dublin, the present study focused on the effects of guided inquiry model on achievement of senior secondary students in Financial Accounting in Akwa Ibom State.

Nsa (2012) carried out a study on instructional strategies and students' skill acquisition in vegetable crop production to determine the effects of discovery-learning, guided demonstration and expository instructional strategies. The population of the study consisted of 1500 Senior Secondary two (SS2) Agricultural Science students in fourteen public secondary schools. A sample size of 150 SS2 Agricultural science students formed three intact classes in three schools selected through criterion sampling technique. A non-randomized pre-test, post-test and control group design was used in the study. Three instruments were developed and used for data collection. While ANOVA, Scheffe's test, ANCOVA and Multiple Classification Analysis at 0.05 level of significance were used to analyze data obtained. The results revealed that instructional strategies had significant effects on students' skill acquisition in vegetable crop production (garden layout and sowing skills). The findings also showed that guided demonstration was the most

effective method, followed by discovery learning, while expository was found to be less effective in enhancing skill acquisition. Gender and attitudes of students as a result of teaching strategies were not found to have significant influence on skill acquisition.

Nsa's study is related to the present study because both focused on the effects of guided inquiry and expository instructional strategies on students' achievement. Both studies differ in the type of institution and location. While Nsa's study focused on instructional strategies and students' skill acquisition in vegetable crop production to determine the effects of discovery-learning, guided demonstration and expository instructional strategies, the present study focused on the effects of guided inquiry model on achievement of senior secondary students in Financial Accounting in Akwa Ibom State.

Interaction Effects of Gender and Teaching Methods on Students' Achievement

There is empirical evidence that students' academic achievements are not influenced by gender. However, groups (treatment) did interact significantly with gender to influence students' academic achievement. Gender (male/female) had no significant effect on students' achievement. It can therefore be concluded that gender of students whether male or female, does not seem to have any influence on the effectiveness of any of the treatment employed in the study. This is an indication that if both treatment/strategies are used effectively for male and female they are likely to produce the same result. Gender difference may exist but a good method should be capable of neutralizing the difference (Akinsola, 2002).

Summary of Review of Related Literature

The review of related literature was organized under conceptual framework, theoretical framework, theoretical studies and empirical studies. Under the conceptual the concepts of jigsaw model, guided inquiry model, academic achievement and Financial Accounting were reviewed. Jigsaw is a cooperative learning strategy that enables each student in a group to specialize in one aspect of a learning unit thereby promoting interdependency and development of skills. Guided inquiry is a student-centred activity and oriented teaching activity in which the teacher directs students through problem-solving approach to discover solutions to instructional topic at hand.

Under the theoretical framework, the theories of social learning and constructivism were reviewed. These theories are related to the study since they focused on students' learning. Under the theoretical studies, relevance of Financial Accounting, Components of Financial Accounting, teaching of Financial Accounting in Nigerian secondary schools, history of instructional models and benefits of instructional models in teaching and learning were reviewed.

Literature reviewed showed that Financial Accounting has greatly suffered set-backs following continued adoption of expository models of teaching in senior secondary schools. This is why alternative, functional and innovative instructional models are advocated to enhance students' achievement in Financial Accounting. Teachers are therefore entrusted with the task of selecting suitable and innovation instructional strategies that will bring about learning outcomes. No one teaching model can be regarded as the best for all teaching situations particularly in financial accounting that should be taught to produce lifelong and independent learners with critical thinking skills.

The review of empirical studies related to the present study showed that some studies have been carried out on the effects of jigsaw and guided inquiry models on students' achievement in Financial Accounting and other subjects at different levels of education and states. However, no study has been carried out on the effects of jigsaw and guided inquiry models on senior secondary students' achievement in Financial Accounting in Akwa Ibom State. This has created a gap in the body of knowledge which this study has filled.

CHAPTER THREE

METHOD

This chapter presents the procedure adopted in carrying out the study. It covered research design, area of the study, population of the study, sample and sampling technique, instrument for data collection, validation of the instrument, reliability of the instrument, research procedure, data collection technique, method of data collection, experimental procedure and method of data analysis.

Research Design

The study adopted a quasi experimental pre-test, post test and control group design. According to Gall and Borg, quasi experimental design can be used when it is not possible for the researcher to randomly sample the subject and assign them to treatment groups without disrupting the academic programmes of the schools involved in the study

This design was considered appropriate because intact classes of Senior Secondary two (SS2) financial accounting students were studied while the independent variables, instructional models; jigsaw, guided inquiry as against expository were manipulated. The use of intact classes did not disrupt the usual class and time-table arrangement in the schools and students did not have the pre-knowledge of being studied. The structure of the design is presented as follows"

O_1	X_1	O_2	(E_1)
O_3	X_2	O_4	(E_2)
O_5	-	O_6	(C)

Where O_1 = pre-test score of the first experimental group

O_2 = Post test score of the first experiments group

O_3 = pre-test scores of the second experimental group

O_4 = Post test scores of the second experiments group

O_6 = Post test scores of the control group

X_1 and X_2 = Treatments (jigsaw and guided inquiry models)

The instructional models in the study consisted of three teaching strategies or approaches that were used as treatment. These were Jigsaw and Guided Inquiry (GN), and expository (Exp) teaching approaches with gender as secondary independent variables. The first and second experimental groups were taught with Jigsaw.

Area of the Study

This study was carried out in Akwa Ibom State Nigeria. The State how relevant is situated within the tropical rainforest zone of the Niger Delta region and has common boundaries with Abia State to the north, Cross River State to the east, the Bight of Bonny to the south, and River State to the west. The state lies between latitude $4^{o}33'$ and $5^{o}33'$ North and longitude $7^{o}35'$ and $8^{o}25'$ East with a population of 8.9 million people. Akwa Ibom State has 31 Local Government Areas. Akwa Ibom State occupies a land mass of 7,081 square kilometre with Uyo as the state capital. The major ethnic groups are Ibibio, Annang and Oron based on variations in the language but the common language spoken and understood by all ethnic blocs is Ibibio. The people are mainly civil servants while some engage in commerce, fishing and with few industrialists.

There were 233 public secondary schools with 25 local education committees (LECs) to supervise and monitor the schools under the coordination and control of State Secondary Education Board (SSEB, Uyo, 2017) (See Appendices 1, 2, and 3 page 123, 124 and 125). There are also numerous privately owned secondary schools in the state. The choice of Akwa Ibom State as area of the study was informed by the fact that the state has so many secondary schools offering Financial Accounting and research of this kind has not been undertaken in the area to the best of the researcher's knowledge. Also the researcher lived and has taught Financial Accounting for more than twenty years in many of the secondary schools in the state, and could indentify educational problems associated with teaching and learning in the area.

Population of the Study

The population of the study consists of 4,016 senior secondary two students offering Financial Accounting in 233 public secondary schools in Akwa Ibom State. Information and population was obtained from Akwa Ibom State Education Management Board. The population distribution by Education Zones, Local Government Areas and schools is shown as Appendix on page 196.

The choice of SS2 students was based on the fact that they are offering Financial Accounting as a subject for external examination such as West African Senior School Certificate Examination (WASSCE) and National Examination Council (NECO) Senior School Certificate Examination (SSCE) respectively. Moreover, they have been exposed to aspects of this subject as a component of Business Studies from the junior secondary (Basic Education) classes up to the senior secondary (Post Basic) levels and are conversant with concepts associated with Financial Accounting. The senior secondary one (SS1) students are new at this level preparing to choose subjects at the end of their SS1 class while senior secondary three (SS3) students are final year students preparing for their external examinations and need no distraction.

Sample and Sampling Techniques

Sample sizes of 150 students (59 males and 91 females) from three intact classes of students offering Financial Accounting were used for the study. Three secondary schools were selected through purposive sampling techniques. The criteria used in selecting the sampled schools were:

1. Schools that are co-educational with 50 financial accounting students in an arm of the SS2 class.
2. Schools that are currently presenting candidates for the West African Senior School Certificate Examination (SSCE) in financial Accounting.

3. Schools that have graduate of financial accounting teacher with a minimum of at least five years of teaching experience at the post basic level.
4. Schools in which financial accounting theory and practice have been taught already.

Out of the three schools that met the criteria two were assigned treatment groups 1 and 2 while one was assigned control group.

The sample distribution by schools is attached as Appendix 9, on page 208.

Instrument for Data Collection

A researcher developed instrument titled "Financial Accounting Students Achievement Test" (FASAT) was used to collect data for the study. The instrument was developed based on accounting concepts and conventions covered in the study as prescribed in WAEC and NECO Syllabus (2015). FASAT has 50 objectives test items with four options each (see Appendix 6 on pages 200-213). It has two sections, Section A, which has one item on gender of the subjects and Section B containing 50 multiple choice test items (see Appendix 6, page 213).The instrument covered the 50 content areas as prescribed by WAEC and NECO syllabus (2015).

Validation of the Instrument

The instrument, Financial Accounting Students Achievement Test (FASAT) and lesson notes together with the title of the study, purpose, research questions and hypotheses were given to three experts for the validation exercise. Two of the experts are in business education from the Department of Vocational Education, Nnamdi Azikiwe University Awka and one in measurement and evaluation from the Department of Measurement and Evaluation, University of Uyo. The experts were requested to check whether the test items were relevant, adequately covered the contents, whether

instructions were clear, language unambiguous and difficulty level of the items are acceptable with no form of repetition. Their criticism, suggestion and recommendation were effected in the instrument.

Reliability of the Instrument

The reliability of the test instrument was determined by administering FASAT to the same level of students in a school within the same population area. The school selected for this purpose met all the requirements which qualify the original three schools chosen for the study. The test was administered to an intact class of thirty students two weeks interval after treatment. The result obtain from the test was subjected to Kuder-Richardson's Formular 21 (KR-21). On the basis of a high reliability index r = 0.86, the instrument was deemed suited to be used in conducting the research.

Method for Data Collection

The researcher handed over to the cooperating teachers the instructional packages developed for the three groups with notes relative to groups in their schools for the exercise. The instrument was administered to each of the three groups before the treatment as pre-test and at the end of the treatment as post-test. The test scripts were collected and handed over to the researcher by the research assistants for scoring and analysis. Each item on the instrument carries 2 marks to make a total of 100 marks which was converted to percentage equivalent.

Experimental Procedure

The procedure that was adopted in carrying out the study is outlined below:

Permission to use the schools for the study

The researcher personally presented letter of introduction to the principal of each of the schools, and explained the aim of his visit. The research, seeks for permission to

conduct an experiment using the school. The researcher, in the process also seeks the principal's permission to interact with the Financial Accounting teachers (subject teachers) in each school with the principal's permission, the researcher briefed the teachers and gave relevant materials to those who accepts to cooperate with him.

Duration of Treatment

Teaching was done for 3 weeks according to the scheme of work and school's time table. This reduced the incidence of history, maturation and mortality but still allowed enough time for the treatment to make an impact and avoid creating study awareness on the part of the subjects under study.

Teaching of the Lesson

The class teacher of the control group teaches the students in the school while students in the experimental group was regrouped into five (5) experts with five (5) of the students forming a sub-group. The teaching in experimental group was by the students after they have been trained on how to carry out the task of teaching by the researcher and the teacher.

Administration of Test Instrument

The test instrument was administered to both experimental and control groups in the first week before treatment and the test lasted for 40 minutes. The pre-test scores were recorded by the researcher and kept for analysis while actual treatment commenced in the following week. The test items were reshuffled before the administration of post-test to both experiment and control groups after the treatment which would last for 40 minutes. The post-test scores were recorded by the researcher for analysis.

Control of Extraneous Variable Non Randomization Effect

It is possible that the students in the three schools used for the study may be at varying levels in Financial Accounting as they are not randomized. To reduce the initial differences, analysis of covariance (ANCOVA) was used in analyzing the result of the study.

Experimental Bias

In order to reduce experimental bias, the researcher worked with the class teacher of the experimental group so as to reduce the teacher effect.

Novelty Effect

To reduce or minimize novelty effect in the context of human performance which results from non familiarity of the researcher to the students, the researcher visited the experimental group schools several times before the start of the experiment. The class teacher was used in creating the necessary rapport. The novelty effect do not exist in the control group since the group members were already used to their teacher.

Hawthorne Effect

To reduce this effect, the teaching periods for the study were within the schools' normal timetable in order to avoid disruption of the school calendar or timetable.

Class Size

This study used three intact of 50 students per class amounting to 150 students for the study.

Pre-Test and Post-test

The use of pre-test enables the researcher to determine the level of students understanding on the subjects matter before the start of experiment while post-test was used to check students' level of understanding and performance after the experiment.

Control Group

The use of control group for history, testing and instrumentation, testing was controlled here because of pre-testing leads to high post –test scores, the advantages was equal for both experimental and control groups.

Method of Data Analysis

The data collected were analysed using descriptive statistic – mean, to answer research questions. While inferential statistic – Analysis of Covariance (ANCOVA) with pre-test scores as covariates and the Post Hoc Test (Least Significance) analysis were used to test hypotheses and comparing differential effects of instructional models respectively, ANCOVA ensures comparability and equality of groups before treatment. All hypotheses were tested at .05 alpha levels.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

This chapter presents the analysis of data collected according to the research questions and null hypotheses in tables while analysis of demographic data of the respondents was presented. See Appendix E on pages.

Research Question 1

What is the effect of teaching Financial Accounting with the Jigsaw and expository models on senior secondary school students' achievement in Financial Accounting Achievement test?

Table 1
Pre-test and post-test mean achievement scores and standard deviation of students taught Financial Accounting with the Jigsaw and expository models on senior secondary school students' achievement in Financial Accounting Achievement test.

Teaching Approach		Pre-test		Post test		Gain
	N	Mean	SD	Mean	SD	score
Jigsaw	50	33.88	6.18	46.44	5.11	12.56
Expository	50	35.88	4.8	42	3.31	6.12

Table 1 shows the pre-test and post-test mean achievement scores of students taught Financial Accounting using jigsaw to be 33.88 and 46.44 respectively. It also shows the pre-test and post-tests mean achievement scores of students taught Financial Accounting using expository method to be 35.88 and 42.00. The gain scores for Jig-saw model was 12.56 which was more than that of expository model of 0.12. This shows that Jigsaw has a greater effect than expository method on the teaching of financial accounting.

Research Question 2

What is the effect of teaching Financial Accounting with the guided inquiry and expository models on senior secondary school students' achievement in Financial Accounting Achievement test?

Table 2

Pre-test and post-test mean achievement scores and standard deviation of students taught Financial Accounting with the guided inquiry and expository models on senior secondary school students' achievement in Financial Accounting Achievement test

Teaching Approach	N	Pre-test Mean	Pre-test SD	Post test Mean	Post test SD	Gain score
Guided inquiry	50	37.57	3.7	45.02	2.19	7.45
Expository	50	35.88	4.8	42	3.31	6.12

Table 2 shows the pre-test and post-test mean achievement scores of students taught Financial Accounting using guided inquiry model to be 37.57 and 45.02 respectively and the pre-test and post-tests mean achievement scores of students taught Financial Accounting using expository method to be 35.88 and 42.00.The gain score of guided inquiry model was 7.45 which was greater than that of the expository method of 6.12. This shows that guided inquiry has greater effect than expository model in the Teaching of Financial Accounting.

Research Question 3

What is the effect of teaching Financial Accounting with the Jigsaw and guided inquiry on senior secondary school students' achievement in Financial Accounting Achievement test?

Table 3

Pre-test and post-test mean achievement scores and standard deviation of students taught Financial Accounting with the Jigsaw and guided inquiry on senior secondary school students' achievement in Financial Accounting Achievement test

Teaching Approach	N	Pre-test Mean	Pre-test SD	Post test Mean	Post test SD	Gain score
Jigsaw	50	33.88	6.18	46.44	5.11	12.56
Guided Inquiry	50	37.57	3.7	45.02	2.19	7.45

The result in Table 3 shows the pre-test and post-tests mean achievement scores of students taught Financial Accounting using jigsaw to be 33.88 and 46.44 while the mean gain score was 12.56. 5 also shows the pre-test and post-tests mean achievement scores of students taught Financial Accounting using guided inquiry models as 37.57, 45.02 and 7.45. The mean post test score and mean gain score of students taught Financial Accounting using jigsaw were greater than that of students taught using guided inquiry model and expository method. This shows that jigsaw model has a higher positive effect on students' achievement in the subject of Financial Accounting than the other instructional methods.

Research Question 4

What is the effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models of senior secondary school students' achievement in Financial Accounting Achievement test?

Table 4

Pre-test and post-test mean achievement scores and standard deviation of students taught Financial Accounting with the Jigsaw, guided inquiry and expository model on senior secondary school students' achievement in Financial Accounting Achievement test

Teaching		Pre-test		Post test		Gain
Approach	N	Mean	SD	Mean	SD	score
Jigsaw	50	33.88	6.18	46.44	5.11	12.56
Guided Inquiry	50	37.57	3.7	45.02	2.19	7.45
Expository	50	35.88	4.8	42	3.31	6.12

The result in Table 4 shows the pre-test and post-tests mean achievement scores of students taught Financial Accounting using Jigsaw to be 33.88 and 46.44 while the mean gain score was 12.56. Table 4 shows the pre-test and post-tests mean achievement scores

of students taught Financial Accounting using guided inquiry models had 37.57, 45.02 and 7.45 as mean pre-test, post-test and mean gain scores. The result in Table 4 also shows the pre-test and post-tests mean achievement scores of students taught Financial Accounting using expository method had 35.88, 42.00 and 6.12 as mean pre-test, post-test and mean gain scores respectively. The mean post test score and mean gain score of students taught Financial Accounting using jigsaw were greater than that of students taught using guided inquiry model and expository method. This shows that jigsaw model has a higher position effect on students' achievement in the subject of Financial Accounting than the other instructional methods.

Research Question 5

What is the effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models on the gender of senior secondary school students' achievement in Financial Accounting Achievement test?

Table 5
Pre-test and post-test mean achievement scores and standard deviation of male and female students taught Financial Accounting using jigsaw, guided inquiry models and those taught using expository method

Teaching Approach	Gender	Pre-test			Post-test			Mean Gain Score
		N	Mean	SD	N	Mean	SD	
Jigsaw model	Male	29	37.58	5.83	29	44.27	3.57	6.69
	Female	21	38.38	6.44	21	44.95	5.88	6.57
Guided inquiry model	Male	19	34.63	4.24	19	41.10	4.40	6.47
	Female	31	35.96	4.51	31	42.40	2.35	6.44
Expository model	Male	19	35.64	2.95	17	41.24	2.40	5.60
	Female	31	34.41	5.12	31	40.00	2.14	5.59

The result in Table 5 shows the pre-test, post-test mean and mean gain scores of 37.58, 44.27 and 6.69 for male and 38.38, 44.95 and 6.57 for female students taught Financial Accounting using jigsaw. Those taught using guided inquiry models had 34.63, 41.10 and 6.47 as pre-test, post-test mean and mean gain scores for male and 35.96, 42.40 and 6.44 for female. While those taught using expository method had 35.64, 41.24 and 5.60 as pre-test, post-test mean and mean gain scores for male and 34.41, 40.00 and 5.59 for female. This shows that the mean post-test and mean gain scores for male and female students taught Financial Accounting using jigsaw and guided inquiry models were greater than their counterparts taught using expository method.

Hypothesis 1

The effect of teaching Financial Accounting with the Jigsaw and expository models on senior secondary school students' achievement in Financial Accounting Achievement test is not significant.

Table 6

Summary of analysis of covariance of mean achievement scores of students in Financial Accounting using jigsaw and expository method

Source	*SS*	*Df*	*MS*	*F*	*P*
Covariate	3360	1	3360	1.34	.001
Group	30598.34	1	30598.34	12.19	.00
Error	245984;7	98	2510.05		
Total	279943.000	99			

The result in Table 6 shows that there is a statistically significant difference in mean achievement scores of students taught Financial Accounting using jigsaw and

expository method. F (1, 98) = 12.19, *P*<0.05. The null hypothesis of no significant difference between the two groups was therefore rejected.

Hypothesis 2

The effect of teaching Financial Accounting with the guided inquiry and expository models on senior secondary school students' achievement in Financial Accounting Achievement test is not significant.

Table 7

Summary of analysis of covariance of mean achievement scores of students in Financial Accounting using guided inquiry and expository models

Source	*SS*	*Df*	*MS*	*F*	*P*
Covariate	3360	1	3360	2.11	.00
Group	21135.34	1	21135.34	12.48	.00
Error	165894.7	**98**	1692.67		
Total	190390.00	**99**			

The result in Table 7 shows that there is a statistically significant difference in mean achievement scores of students taught Financial Accounting using guided inquiry and expository models, F(1,98) = 12.48, *P*<0.05. The null hypothesis of no significant difference between the guided inquiry and expository models was therefore rejected.

Hypothesis 3

The effect of teaching Financial Accounting with the Jigsaw and guided inquiry on senior secondary school students' achievement in Financial Accounting Achievement test is not significant.

Table 8

Summary of analysis of covariance of mean achievement scores of students in Financial Accounting using jigsaw and guided inquiry models

Source	*SS*	*Df*	*MS*	*F*	*P*
Covariate	3360	1	3360	2.11	.00
Group	21144.34	1	21144.34	13.29	.00
Error	155885.7	**98**	1590.67		
Total	180390.00	**99**			

The result in Table 8 shows that there is a statistically significant difference in mean achievement scores of students taught Financial Accounting using jigsaw and guided inquiry models, F(1,98) = 13.29, $P<0.05$. The null hypothesis of no significant difference between the jigsaw and guided inquiry models was therefore rejected.

Hypothesis 4

The effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models on senior secondary school students' achievement in Financial Accounting Achievement test is not significant.

Table 9

Summary of analysis of covariance of mean achievement scores of students in Financial Accounting using jigsaw, guided inquiry and expository method

Source	*SS*	*Df*	*MS*	*F*	*P*
Covariate	323.33	1	3360	1.32	.00
Group	268.34	2	27982.34	11.03	.00
Error	1775.30	146	2536.80		
Total	279948.00	149			

The result in Table 9 shows that there is a statistically significant difference in mean achievement scores of students taught Financial Accounting using jigsaw and guided inquiry models as against expository method. F (1,146) = 11.03, $P<0.05$. The null hypothesis of no significant difference between the groups was therefore rejected.

Hypothesis 5

The effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models on the gender of senior secondary school students' achievement in Financial Accounting Achievement test is not significant.

Table 10

Summary of analysis of covariance of mean achievement scores of students in Financial Accounting by gender

Source	*SS*	*Df*	*MS*	*F*	*P*
Covariate	561.202	1	561.202	40.581	.00
Gender	110.763	1	110.763	17.78	.00
Error	2032.889	147	13.829		
Total	279948.000	149			

The result in Table 10 shows that there is a statistically significant difference in mean achievement scores of male and female students taught Financial Accounting using jigsaw and guided inquiry models as against expository method. F (1,147) = 17.78, $P<0.05$. The null hypothesis of no significant difference between the two groups was therefore rejected.

Hypothesis 6

There is no significant interaction between the effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models on the gender of senior secondary school students' achievement in Financial Accounting Achievement test is not significant.

Table 11

Summary of analysis of covariance of interaction between the effect of teaching Financial Accounting with the Jigsaw, guided inquiry and expository models on the gender of senior secondary school students' achievement in Financial Accounting Achievement test is not significant

Source	*SS*	*Df*	*MS*	*F*	*P*
Covariate	561.202	1	561.202	40.581	.00
Gender	110.763	1	110.763	17.78 38.97	.00
Error	27191.34	2	13595.67		.00
	2032.889	147	13.829		
Total	279948.000	149			

The result in Table 11 shows that there is a statistically significant difference in mean achievement scores of male and female students taught Financial Accounting using jigsaw and guided inquiry models as against expository method. F (1,147) = 38.97, $P<0.05$. The null hypothesis of no significant interaction between the two groups was therefore rejected. There was significant interaction the effect of teaching Financial Accounting using Jigsaw Guided Inquiry and expository Model and gender.

Since the analysis of co-variance or ANCOVA was significance it was necessary to conduct a post hoc test on the data in order to obtain more information about the subject. Sheffes Test was used for this and the result presented on table 12.

Hypothesis 7

There is no significant difference in the performance of male and female students taught Financial Accounting with Jigsaw in Financial Accounting achievement test.

Table 12: The Scheffes Post Hoc Test on Male and Female Student Achievement taught with the Jigsaw, Guided Inquiry and Expository Model

			Jigsaw		Guided Inquiry		Expository		Total	
			M	F	M	F	M	F	M	F
			42.14	52.38	63.74	33.55	47.37	35.48	49.75	39.04
Jigsaw	Male	42.14	0							
	Female	52.38	-10.24**	0						
Guided Inquiry	Male	63.74	-21.60**	11.36**	0					
	Female	33.55	8.59**	18.83**	30.19**	0				
Expository	Male	47.37	-5.23**	5.01**	16.37**	-13.82**	0			
	Female	35.48	6.65**	16.90**	28.25**	-1.94*	11.88**	0		
	Male Total	49.75	-7.61**	2.63*	13.99**	33.55**	-2.38*	-14.26**	0	
	Female	39.04	3.10*	13.34**	24.70**	-5.49**	8.33**	-3.55*	10.71**	0

Scheffes Critical differenced = 4.14

From table 12 the mean difference between the male and female who were taught Financial Accounting with Jigsaw model was 10.24 which was greater than the critical value of 4.14 hence there is significance difference between male and female students taught Financial Accounting with jigsaw model. From table 12 the mean difference between the male and female who were taught with guided inquiry model was 30.19 which was greater than the critical value of 4.14 hence there s significance difference between male and female students taught Financial Accounting with guided inquiry model.

Hypothesis 8

There is no significance differences between the performance of male and female students taught Financial Accounting with Guided Inquiry model in the Financial Accounting Achievement Test.

Hypothesis 9

There is no significant difference between the performance of male and female students taught Finance Accounting with expository model in the Financial Accounting Achievement Test.

From table 12 the mean difference between the male and female who were thought with expository was 11.88 which was greater than the critical value of 4.14 hence there is significance difference between male and female students taught with Jigsaw.

Summary of Findings

Based on the data analysis, the findings of this study are as follows:

1. The findings revealed that Financial Accounting students performed better with these instructional models jigsaw and guided inquiry.
2. There was a significant difference in the pre-test and post-test mean achievement scores of students taught Financial Accounting using jigsaw and guided inquiry instructional models.
3. There was a significant effect in the pre-test and post-test mean achievement scores of students taught Financial Accounting using jigsaw and expository method.
4. There was a significant effect between the post-test mean achievement scores of students taught Financial Accounting using jigsaw and guided inquiry instructional models and those taught using expository method.
5. There was a significant effect in the post-test mean achievement scores of male and female students taught Financial Accounting using jigsaw and guided inquiry instructional models as against expository method.

6. Jigsaw (experimental group 1) achieved the highest mean gain score in Financial Accounting than guided inquiry (experimental group 2) and expository (control group).
7. Male and female students taught Jigsaw and inquiry models had greater post-test mean and mean gain scores than their counterparts taught using expository method, and it was significant.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

This chapter discusses the findings of the study, draws conclusion and makes recommendations and suggestions for further studies.

Discussion of Findings

The findings of this study are organized and discussed based on the research questions guiding the study as well as the hypotheses tested. The discussions are done under the following headings:

Jigsaw and Guided Instructional Model

Results of the study revealed that Financial Accounting students performed better with these instructional models, jigsaw and guided inquiry. Though there was a better mean score of the performance of students taught Financial Accounting in favour of jigsaw instructional model compared to those students taught with guided inquiry instructional models. The findings of the study supported the assertion of Bafile (2011) that with jigsaw, students are eager to participate in the learning process and are responsible for the work and achievement while being held accountable by their peers. The findings also corroborates with that of Umar and Abdulmutallib (2017) who observed that the financial accounting achievement of students who were exposed to the jigsaw approach was significantly better than the financial accounting achievement of students who were exposed to the guided discovery. The finding suggested jigsaw approach as an effective approach to enhance the financial accounting achievement of the secondary school students.

Furthermore, the findings indicated that there was a significant difference in the pre-test and post-test mean achievement scores of students taught Financial Accounting using jigsaw and guided inquiry instructional models. This agrees with the findings of Umar and Abdulmutallib (2017) who stated that there was a significant difference between students taught Financial Accounting with jigsaw and guided inquiry models.

Jigsaw, Guided Inquiry and Expository instructional models on students achievement in Financial Accounting

Results of the study indicated that jigsaw (experimental group 1) achieve the highest mean gain score than guided inquiry (experimental group 2) and expository (control group) respectively when students in each group was taught Financial Accounting. This is similar with the findings of Umar and Abdulmutallib (2017) who observed that the Financial Accounting achievement of students who were exposed to the jigsaw model was significantly better than the Financial Accounting achievement of students who were exposed to the guided inquiry and expository (conventional) method. Conversely, the achievement of guided inquiry students was significantly better than that of the conventional method.

This finding suggests that cooperative approach which provides a supportive and highly interactive learning environment that allows students to share their ideas with one another, brainstormed responses and worked together in addressing the problems, deliberated and explained their viewpoints was found to be the most effective approach for teaching financial accounting in secondary schools. In support of this, Jimoh (2014) corroborated that cooperative learning emphasizes students' active involvement in learning process and gives them opportunity to communicate, reason and develop self-confidence to solve academic problems.Therefore, students' poor achievement in

Financial Accounting, particularly in their final examination could be addressed using cooperative instructional approach.

Also Raymond and Ogubameru (2015) in their study indicated a difference in pre-test and post-test mean performance scores of students in control and experimental groups; and mean performance score of students taught with guided discovery method and those taught with expository method in financial accounting achievement post-test scores in favour of guided discovery method. Similarly, Olorode (2016) affirm that guided discovery strategy is an instructional method that emphasizes students' active involvement in the learning process through peer work and enable students to think together with a view to discovering knowledge under the guidance of the teacher especially in calculation subjects like financial accounting.

The test of the hypothesis revealed that there was a significant difference between the post-test mean achievement scores of students taught Financial Accounting using jigsaw and guided inquiry instructional models than those taught using expository method. It followed therefore that the null hypothesis of no significant difference was not accepted. The findings agrees with the findings of Umar and Abdulmutallib (2017) and Eke, Mumuni and Nwanekezi (2016) who found out significant difference in students' academic performance between jigsaw, guided inquiry and expository method.

Jigsaw, Guided Inquiry as against Expository Method on male and female students' academic achievement in Financial Accounting.

Results of the study indicated that the mean post-test and mean gain scores for male and female students taught Financial Accounting using jigsaw and inquiry models were greater than their counterparts taught using expository method. Similarly, male and female students taught using guided inquiry instructional model had the higher mean to

outperform male and female taught using expository method. This expository teaching model in senior secondary financial accounting is at variance with individual instruction, cooperative learning, use of effective learning/teaching strategies other methods of such as jigsaw and guided inquiry for improved student's academic achievement. This showed superiority of jigsaw and guided inquiry instructional models in enhancing academic achievement to Financial Accounting students as against the expository method. Jigsaw and guided inquiry are such strategies that should be employed by accounting teachers for improved student academic achievement in both internal and external examinations. To achieve the objectives of Financial Accounting, teachers employ various instructional models in the classroom. Raymond and Ogunbameru (2010) asserted that teaching method are in a continuum, ranging from exposition to inquiry.

The test of the hypothesis indicated that there was a significant difference in the post-test mean achievement scores of male and female students taught Financial Accounting using jigsaw and guided inquiry instructional models as against expository method. Therefore, the null hypothesis of no significant difference was not upheld. This implies that gender statistically affect the achievement of male and female students in financial accounting using jigsaw and guided inquiry instructional models. This agrees with the findings of Umar and Abdulmutallib (2017), Olorode and Jimoh (2016) and Raymond and Ogubameru (2015) that a significant difference exists in the post-test mean achievement scores of male and female students taught Financial Accounting using jigsaw and guided inquiry as against expository method.

Conclusion

The study proves that the Financial Accounting achievement of students who were exposed to the jigsaw and guided inquiry models were significantly better than the

financial accounting achievement of students exposed to the expository teaching method. This implies that effective teaching/learning of Financial Accounting is factored on the ability of the subject teacher to select and use the most appropriate instructional models. Based on the findings of the study, it was concluded that jigsaw and guided inquiry instructional models are the more effective in enhancing students' academic achievement in Financial Accounting than the expository method.

Implications of the Study

The findings of the study have far reaching educational implications for accounting education teachers and students. The findings of this study brought to limelight the fact that the recurring poor academic achievement in Financial Accounting by students is majorly attributed to the teachers' use of the expository (text-board-talk and chalk) instructional method, the constantly use of this approach instead of improving performance causes abysmal academic performance with declining interest in the students' choice of the subject as a professional or career course. The findings of this study indicated that jigsaw and guided inquiry instructional models enhanced students' academic achievement in Financial Accounting.

With jigsaw and guided inquiry instructional models, students in financial accounting can think through and find out (rather than simply being told) effective ways of teaching a segment of the course content to other group members. The process of teaching others then reinforces the students' own learning and they develop a deeper knowledge of their materials rather than passively listening to a teacher through expository method. Another educational implication of the study is that students learn best when the right and appropriate instructional model is used in the teaching and learning process. It also implies that good and effective teaching demands the

competency of a teacher in the selection and utilization of the instructional models to achieve the desired objectives. The study therefore, has revealed that developing and utilizing jigsaw and guided instructional models in the classroom, the prospective accountants can be equipped with a lot of skills and knowledge to fulfil the requirement of a dynamic and complex business environment.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Jigsaw instructional model should be used by Financial Accounting teachers in senior secondary schools in order to develop competency with leadership skills, solve problems and develop their own expertise with learning accountability.
2. Teachers of Financial Accounting should change their mind set in the continued use of conventional 'Text-Board-Talk and Chalk' only for content coverage. Rather, they should ensure the use of specific techniques as presented in jigsaw and guided inquiry instructional models to facilitate students' cognitive and practical ability to perform better in internal and external examinations as well as transfer such skills to the workplace.
3. Curriculum planners and developers should introduce Jigsaw and Guided Inquiry techniques into the curriculum to assist the facilitators (teachers) in the grouping of students and allocation of a sub-task per group to achieve behavioural, instructional or performance objectives in financial Accounting.
4. Training and retraining of Financial Accounting teachers on various innovative instructional techniques for enhanced Achievement. The use of modern data processing techniques with spreadsheets through in service training, seminars,

workshops, symposia in educational institutions and professional bodies should be the priority of all educational agencies of both the state and federal governments.

Suggestions for Further Research

Based on the finding and conclusion, the following topics are suggested for further studies ;

1. Effects of instructional models and teachers variables on students' academic achievement in teaching of business education in tertiary institutions in South East Nigeria.
2. Effectiveness of innovative instructional models on students' achievement in Financial Accounting in senior secondary schools in Akwa-Ibom State .
3. Effects of jigsaw and guided inquiry methods in senior secondary schools students' achievement in Financial Accounting in South East Nigeria.

REFERENCES

Adeleke, M. S., Binuomote, M. O., & Adeyinka, M. (2013). Determinants of students' academic performance in financial accounting among senior secondary school leavers in Oyo State. *International Journal of Business and Management Invention, 2*(5), 48-59.

Adewuyi, J. O., & Araromi, M. A, (2010). Relative effects of feedback and remediation on students' cognitive achievement in secondary school Economics. *Nigerian Journal of Professional Teachers, 3*, 11-20.

Ahmad, F. N. S., & Gao, S. S. (2010). The changes, problems and challenges of Accounting Education in Libya, Accounting Education: *An International Journal, 13(3),* 365-90.

Ainabor, A. E. (2012). The challenges of gender imbalance in Nigeria's educational development. In: Illputaife, E. C., Maduewesi, B. U. and Igbo, R. O. (Eds). *Issues and challenges in Nigerian Education in the 21st century*. Onitsha: West and Solomon Publishing Company Ltd.

Ainabor, A. E., Amabor, S. A., & Ehimi, O. C. (2012). Gender equality: A panacea for good governance and socio-economic development in Nigeria. A Paper Presented at the 8th National Conference of Nationals Association for Research Development (nard).Auchi Polytechnic, Auchi, 5th 9th October, 2009.

Akinsola, M. K. (2002). Instructional Methods Employed by Mathematics Teacher. A Managerial Approach. *African Journal of Educational Planning and Policy Studies*. 3(1), pp. 25-32.

Akintelure, S. L. (2010). *Comprehensive Book-keeping and Accounts for senior secondary school: Sure-bet for WASCE*. Lagos: Johnson Publishing Ltd.

Akpan, E. D. (2011). Computer-based instruction and students' academic performance in Physic lesson on electricity. Unpublished Thesis Submitted to University of Uyo, Uyo.

Akpan, G. A., Akpan, N. A., & Inyang, I. U. (2011). Industrializing Nigeria for employment generation through functional Technical and Vocational Education. *Journal of Education.* 4 (1) 104-113. Faculty of Education, University of Uyo, Uyo.

Akwa Ibom State Ministry of Education- AKS MOE. (2012). *Information on schools.* Uyo; Government Printer, 6.

Ali, A. A. (2011).performance of Nigerian secondary school 'O' level students on Mathematics test essential in secondary school. *JSTAN 24 1&2* 134-142.

Amatefe, G. T. D., & Ametefe, M. D. (2013). Re-position women education for national development in the 21st Century. *Journal of Research Development, 8(5), 68.*

Amelsuoot, M. A. (2013). How Diagrams Support Collaborative Argumentation-based Learning. *http://igitur-archieve.library.Un.nl/dissertatio.*

Anyanwu, T. C. (2010). Innovative instructional strategies. *Nigeria Association for Educational Media and Technology (NAEMT) Journal;* 1(67-72).

Aronson, E. (2008). *History of Jigsaw*. Retrieved from http://www.jigsaw.org/history.htm.

Aronson, E. (n.d) Jigsaw Basics. *Retrieved December 5, 2012 from jigsaw.org*

Aronson, E., & Patnoe, S. (2013). Cooperation in the classroom: The jigsaw methods (3rded). London: Printer & Martin Ltd.

Aronson, J. (2002). *Improving academic achievement: Impact on psychological factors on education*. New York: Elsevier Inc.

Asaolu, A. (2002). Modern book–keeping and accounts. Ibadan: Calabeks publishers. p.106.

Awopegba, P. O. (2012). The Catalytic role of women in the national development. In Belo, L. B. and Obadan, M. I. (Eds). *Democratic governance and development management in Nigeria's Fourth Republic,* 1999 2003. Ibadan: Centre for Local Government and Rural Development Studies.

Awotua-Efebo, E. B. (2011). *Effective teaching*: *Principles and practice*. Port Harcourt: Jeson Services. 99-112.

Azih, N., & Nwosu, B. O. (2011). Effects of instructional scaffolding on the achievement of male and female students in Financial Accounting in secondary schools in Abadilike Urban of Ebonyi State. *Current Research Journal of Social Sciences* 3(2) 66-70.

Bafile, C. (2011). The jigsaw approach bring lessons to life. http://www.education-world.com/a-urr/curr324shtml.retrieved. *January*, 2012.

Banerof, B. L. (2010). Enhancing students' achievement through cooperative learning at the elementary level. An unpublished Masters Dissertation, Maryland University.

Bastick, T. (2013). 3 AF: The three ability framework for assessment in tertiary education. Paper Presented at the 8th International Conference on Assessing Quality in Higher Education, Finland Albrecht, W.S. and Sack, R. J. (2001). *The perilous Future of Accounting Education. CPA Journal*. 71(3) 17-24.

Bello, O. O. (2010). Problem-solving instructional strategies and students learning outcomes in secondary school Chemistry. Unpublished Ph.D. Thesis, University of Ibadan, Ibadan.

Berg, M. D. (2013). *Exploration on jigsaw strategy in college classroom.* New York: Longman.

Bonwell, C. C. and Eison, J. A., "Active Learning: Creating excitement in the classroom", ASHE-ERIC Higher Education Report No. 1, Washington D.C.: The George Washington University, School of Education and Human Development, 1991.

Bradley, C., & Green, E. (2011). Jigsaw teaching and learning strategy. *Teaching Tip of the Week Journal.10(2)* 124-128.

Bushman, R. and Smith, A. (2001). Financial Accounting Information and Corporate Governance. JAE Rochester Conference April 2000.

Byme, M. Flood, B., & Willis, P. (2010). The relation between learning approaches and learning outcomes: A study or Irish Accounting Students. *Accounting Education 11(1),* 27-42.

Cantrell, D. (2004).Using a variety of teaching methods and strategies: recovered from online. Goggle search.

Chacko, I. (2013). The relationship between teacher variables and students' cognitive effective outcomes in Mathematics. A*bacus Journal of Mathematics Association of Nigeria, 15,* 19-32.

Chong, V. K. (2012). The role of feedback and use of lecture activities on students' academic performance. Cowan University. Retrieved 2010.

Clark, J. (2011). Pieces of the puzzle: The jigsaw methods. In Sharan, S. (Ed), *Handbook of Cooperative Learning Methods,* Greenwood Press.

Duke, N. K., Caughlan, S., Juzwik, M. M., & Martin, N. M. (2012). Teaching genre with purpose. *Educational Leadership, 69 (6),* 34-39.

Edet, A. A. (2010). Effects of guided instruction, demonstration and expository teaching students' acquisition of practical skills in Introductory Technology in Uyo Local Government area. Unpublished M.Sc. (Ed) Dissertation. University of Uyo, Uyo.

Edet, U. B. (2012). Effect of learning styles and teaching strategies on students' achievement/retention in Biology in secondary schools in Akwa Ibom State. Unpublished Ph.D. Thesis. University of Uyo, Uyo.

Eke, E. M., Mumuni, A. A., & Nwanekezi, A. U. (2016). Effects of guided inquiry and cooperative instructional strategies on SS1 students' academic achievement in conceptual understanding of Photosynthesis. *International Organization of Scientific Research, 6*(8), 1-11.

Ekhasemomhe, J. (2010). Effect of guided discovery learning on student achievement in final account in financial accounting in colleges of education in Edo state. Unpublished M.Ed Thesis.Department of Vocational Teacher Education, University of Nigeria

Eko, M. I., & Udofia, A. E. (2013). Cooperative and individualistic laboratory interactions and students' acquisition of skills in technical colleges. *International Journal of Education Development.* 10(1). Sept 2007.

Ekpo, C. M. (2014). An assessment of instructional strategies adopted by secondary school teachers in *Nigeria. JEMT, 5(1)*: 132-140.

Essien, P. B. (2014). *Accounting foundation.* Lagos: Cherublon Limited.

Eze, A. E. (2011). Effect on guided-discovery mode of instruction on secondary school Financial Accounting learning. *Journal of the Science Teacher's Association of Nigeria.* 21(1): 147-154.

Ezeagba, C. (2014). The problems in the teaching and learning of Accounting as a vocational subject in Nigeria secondary schools. *AFRREV STECH: An International Journal ofScience and Technology*, *3*(2), 208-226.

Ezeani, L. U. (2014). *Principles and method of teaching* (2nd Ed). Onitsha: West and Solomon Publishing Company Ltd.

Ezema, A. O. (2012). Effects of laboratory instructions on students' achievement in chemistry. *Unpublished M.Ed. Thesis.* University of Nigeria, Nsukka.

Federal Ministry of Education. (2011). Senior secondary school curriculum Financial Accounting for SS 1-3. Abuja; Nigerian Educational Research and Development Council (NERDC).

Federal Republic of Nigeria (2011). *National policy on education.* Lagos: NERDC Press.

Felder, R. M. (2014). Learning and teaching styles of Engineering education. *Journal of College Science Teaching,* 78(7), 674-681.

French, G. R., & Coppage, R. E. (2011). Educational issues challenging the future of the Accounting profession. *The Ohio CPA Journal,* 59(3) 69.

Hanze, M., & Berger, R. (2010). Cooperative learning motivation effects and students characteristics: An experimental study comparing jigsaw and direct instruction in 12th grade Physic classes. *Learning and Instruction, 17, 19-41.*

Ibe, V. S. O. (2010). Instructional strategies and senior secondary students' academic performance and retention in Agricultural Science. Unpublished Ph. D Thesis, University of Uyo, Uyo.

Ibe-Bassey, G. S. (2011). *Principles and practice of instructional communication (3rdEd).* Uyo: Dorand Publishers.

Igben, R. O. (2013). Financial Accounting made Simple (1,3rd Ed). Lagos; ROI Publishers.

Jackling, B. (2010). Perceptions of the learning context and learning approaches: Implications for quality learning outcomes in Accounting. *Accounting EducationJournal,* 18(4), 369-358.

Jayaprakash, J. C. M. (2012). Strategies in teaching Accounting in higher education. (Verified 30 Jan 2008).

Jimoh, A. G., Idris, L. O., & Olatunji, B. A. (2016). Effects of jigsaw cooperative learning strategy and gender on students' academic achievement in Cost Accounting in colleges of education in Ogun State, Nigeria. *International Journal of Academic Research in Education and Review, 4(5),* 150-157.

Kavanagh, M., & Drennan, L. (2012). Graduate attributes and skills: Are we as Accounting academics delivering the goods? Paper Presented to Accounting & Finance Association of Australia and New Zealand Conference, Gold Coast, Australia.

King, M. (2014). Lecture Notes. Teaching Science in English. University of Sydney, Australia.

Ledlow, S. (2012). Susan Ledlow's Version of Jigsaw. Retrieve from http://www.public.asu.edu/ledlow/sledlow/jigsaw.htm.Nov.2012.

Lestik, M., & Pious, S. (2012). Jigsaw classroom. *Retrieved October 24, 2012, from jigsaw.org.*

Longe, F. (2010). *Simplified and amplified Financial Accounting for senior secondary schools* 1,2,3, NECO, WAEC, JAMB, ICAN, CIB, Polytechnics and Universities: Agege: Longe Ventures.

Longe, O. A.. & Kazeem, R. A. (2010). *Essential Financial Accounting for senior secondary schools.* Ibafo: Tonad Publishers Limited.

Maduewesi, E. J. (2013). *Benchmarks and global trends in education*, Benin City: Daslva influence enterprises.

Majoka, M. I., Dad, M. H., & Mahmod, T. (2010). Students' team achievement division (STAD) as an active learning strategy: Empirical evidence from Mathematics classroom. *Journal of Education Sociology*. ISSN 2078-632 x Dec 2010.

Mbacho, N. W. (2013). Effect of jigsaw cooperative learning strategy on students' achievement in secondary school mathematics in Laikipia East District, Kenya. Unpublished M.Ed thesis, Egerton University, Kenya

Mengduo, Q., & Xiaoling, J. (2011). Teaching: Focusing on the language learners through jigsaw. *Harbin Institute of Technology Journal 12(14).*

Meyers, C. and Jones T.B.,(1993). Promoting Active Learning: Strategies for the College Classroom, Jossey-Bass Publishers, San Francisco, CA, 1993. Morton, L. P. (2002, Summer). Targeting Generation Y. Public Relations Quarterly 47 (2), 46-48.

Mishra, R. C. (2011). *Teaching styles.* New Delhi: APH Publishing Corporation.

NECO (2002). Regulations and syllabus for senior secondary school certificate examination. Minna: NECO.

NECO, (2014). *Regulations and syllabuses for senior school certificate examination* (SSCE). Minna: NECO.

Nsa, E. O. (2012). Instructional strategies and students' skill acquisition in vegetable crop production. Unpublished Ph.D. Dissertation, University of Uyo, Uyo.

Ntuk, B. E. (2012). Effect of feedback on students' academic performance and retention in Biology in Uyo Urban. Unpublished M.Sc. (Ed) thesis. University of Uyo, Uyo.

Obasi, C. M. (2011). Strategies for improving students interest in Accounting in senior secondary in Imo State. Unpublished Seminar PaperSubmitted to Department of Vocational Education, University of Uyo, Uyo.

Ogwo, B. A. (2012). Preparing instructional materials for multigrade teaching. Paper Presented at Workshops Organized by National Commission for Colleges of Education (NCCE) held at Colleges Education, Oyo, Enugu, and Federal College of Education (Technical), Asaba from 3rd April - 5th May, 2005.

Ogwo, B. A., & Oranu, R. N. (2015). *Methodology in formal and non-formal Technical/Vocational Education.* Nsukka: University of Nigeria Press, 34.

Okoli, B. E., & Nwosu, B. O. (2011). The effects of the integrated instructional model on students' achievement in advanced Financial Accounting in Nigerian universities. *Asian Journal of Business Management*. *2(3)*, 73-67.

Okoro, C. C. (2015). *Basic concepts in educational psychology*. Uyo: Abaam Publishing Company.

Omwirhiren, E. M. (2013). The effect of guided discovery and traditional methods on the achievement of senior secondary certificate examinations. *Journal of Research in Education. 2(1&2): 21-24.*

Overbaugh, R. (2012). Teaching-learning situation. Retrieved on June, 23 2004 from www.library itnkquest.org

Raux, Donald J. and Smith, Walter, "Effectively using active and online learning to help students with weak retention of prerequisite skills succeed in intermediate financial accounting" Review of Business Research, September, 2007

Raux, Donald J., "Implementing Active Learning in College Accounting Classes", Explorations in Teaching and Learning, Vol. 16, No. 1, Winter, 2004.

Raymond, U., & Ogumbameru, M. T. (2012). A comparative analysis of two methods of teaching Financial Accounting at senior secondary school. Retrieved April, 20.2009 from curriculum/nov05_article03.htm.

Rebele, J. (2014). An examination of Accounting student perceptions of the importance of communication skills in public Accounting. *Issues in Accounting Education. 8,* 41-50.

Regeluh, M. D. (2010). Models and theories of instructional design. *Training and Research Journal* (2911), 4-6.

Riccio, E. L. (2015). Teaching-Learning Methods in Accounting Education-An Empirical Research in the Brazilian Sceneario. Retrieved online –e-mail: mcsakata@usp.br.

Saskatchewan Education (2011). *Native studies 30:Canadian studies curriculum guide. Regina,* SK: Saskatchewan Education.

Siddiqui, M. H. (2011). *Models of teaching*. New Delhi: A. P.H Publishing Corporation.

Sims, R. (2012). Interactivity and feedback as determinants of engagement and meaning in e-learning environments. In: S. Naidu (Ed) *Learning and teaching with technology: Principles and practices.* London, UK: Kogan page.

Skinner, B.F. (1858). *Sociology of education*. Uyo: Apex Printing Press, Uyo.

Smith, W. and Meador, A., "Teaching Principles of Accounting to the MTV Generation", The Journal of Accounting and Finance Research, Vol. 9, No. 1, 2001, 16-19.

Stolovitch, H. D., & Keeps, E. J. (2011). *Telling ain't training: Updated, expanded, enhanced* (2 edition). Alexandria, VA: Association for Talent Development.

Timayi, J. M., Bolaji, C., & Kajuru, Y. K. (2015). Effects of jigsaw IV cooperative learning strategy (J4CLS) on academic performance of secondary school students in Geometry. *International Journal of Mathematics Trends and Technology, 28(1),* 12-18.

Tochonites, O.L. (2012). Creating and effective foreign language classroom. Retrieved: ww/wcar.wise.edu/step/ep30/fall2000/tochnites/stucen.htc.on14/4/2009.

Udoidiong, S. J. (2011). Teaching methods and students' performance in Principles of Accounts in secondary schools in Ukanafun Local Government Area. Unpublished M.Sc. (Ed) Dissertation, University of Uyo, Uyo.

Ukegbu, M. N., & Aunonye, C. C. (2012). Innovation instructional strategies as imperatives for improving classroom communication in Nigeria school system. *Nigeria Association for Educational Media and Technology (NAEMT) Journal,* 1, 73-77.

Ukoha, U. A., & Enogwe, N. U. (2012). The instructional process. In: Ogwo, B. A. (Ed). *Curriculum development and educational technology*. Makurdi: Onaivi Printing and Publishing Co.

Umar, I., & Abdulmutallib, U. B. (2017). Effects of cooperative and guided discovery approach on financial accounting achievement among secondary school students. *Journal of Science, Technology and Education (JOTE), 5(2),* 60-70.

State Secondary Education Board (SSEB, Uyo, 2017).

Vygotsky, P. Y. (2011). Instructional models in computer based learning environments. *Educational Media International 30 (15),* 6-10.

WAEC (2011). *Regulations and syllabuses for the West African senior school certificate examination (WASSCE).* Lagos: NSPMC Ltd.

West African Examinations Council (2004). Chief examiners reports: May/June West African Senior School Certificate Examinations. Lagos: WAEC.

West African Examinations Council (2010). Chief examiners reports: May/June West African Senior School Certificate Examinations. Lagos: WAEC.

Wikipedia Encyclopedia (2011). Overview of research findings-redirected from jigsaw classroom. Retrieved from jigsaw.org.

William, P. S. (2012). Instructional models and students' acquisition of psycho productive skills in poultry production. Unpublished Ph.D. Dissertation, University of Uy, Uyo.

Wood, F., & Sangster, A. (2010). *Frank Wood's Business Accounting* 1 (Eleventh Ed). Harlow: Pearson Education Limited.

Yusuf, A. (2015). Book-keeping and Accounting education: General objectives of Book-keeping and Accounting, Retrieved from online. Google Search.

APPENDIX A

Summary of May/June WASSCE Statistics of Result for 2015-2017 Financial Accounting Candidates in Akwa Ibom State, Nigeria

	2015	**2016**	**2017**
Number of candidates entered	5537	5907	6111
A1	191	185	178
B2	189	176	203
B3	827	839	821
C4	383	379	371
C5	329	340	360
C6	740	801	923
Total	2659	2720	2856
%	48	46	46.7
D7	564	580	632
P8	603	715	776
F9	1119	1232	1217
Seized	215	223	241
Absent	377	437	389
Total	2878	3187	3255
%	52	54	53.3

Source: Office of the Senior Deputy Registrar/Head of Research, WAEC, Lagos (2017).

APPENDIX B

DESIGN OF THE STUDY

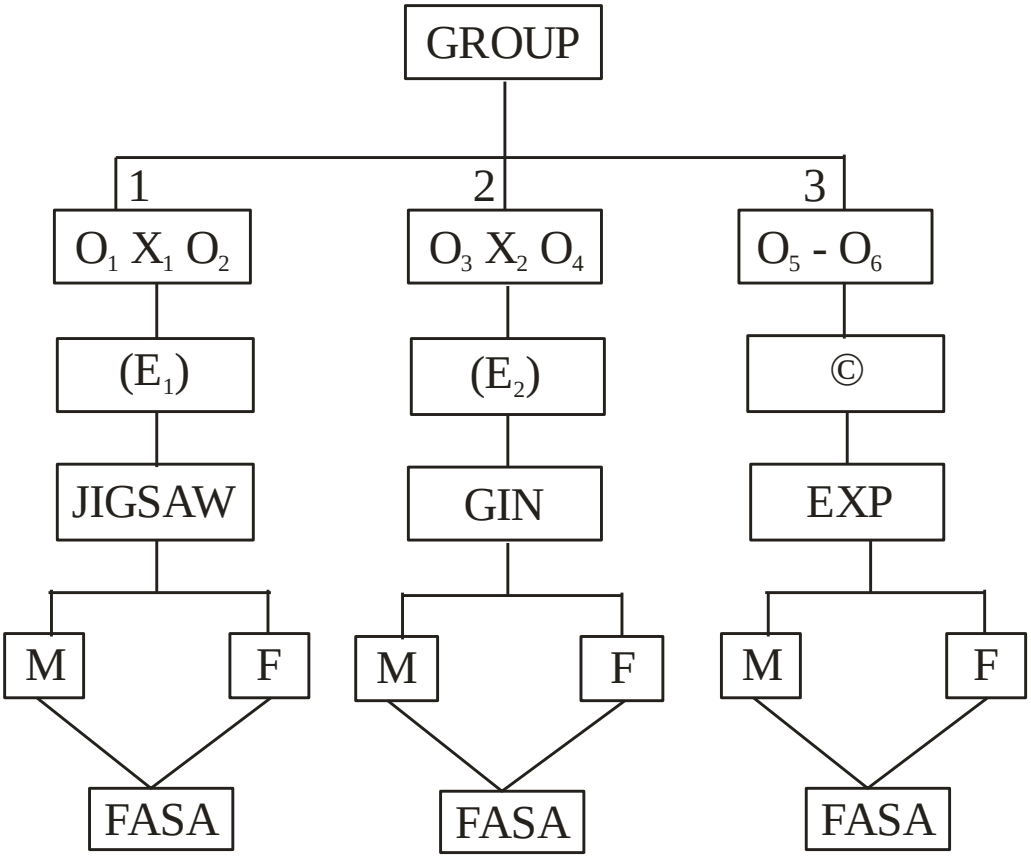

Figure 1: Structural arrangement of the design of the study, instructional models and students achievement in financial accounting

APPENDIX C

JIGSAW INSTRUCTIONAL MODEL LESSON PLAN (EXPERIMENTAL GROUP 1)

LESSON NOTE 1 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Accounting Concepts and Conventions

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14 - 17 years

Date:

Duration: 1 hr. 20 minutes (Double periods)

Class size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define accounting concepts and conventions;

(ii) Name at least 5 accounting concepts;

(iii) Name 3 accounting conventions;

(iv) Explain each of the accounting concepts named;

(v) Explain each of the accounting convention named.

Entry Behaviour: The students had studied and can prepare relevant books of account with double entry principle.

Introduction: The teacher introduces the topic in a nutshell and divides the students and contents based on groupings; with 10 students per group.

INSTRUCTIONAL PROCEDURE FOR JIGSAW LESSON PLAN

Steps	Contents	Teacher's activities	Jigsaw	Student's activities	Skills/knowledge acquisition
1	**Definition of accounting concepts/convention:** These are the fundamental accounting policies generally accepted as principles, bases, rules and practices or assumptions, used in the preparation of accounting entries	Introduces the lesson and divided students into five groups with 10 students in each cell (Home Group). Selects our one students per group and teaches him or her to become an "Expert" for each group	Share contents into five places. Two contents per group of 10 students for them to be objective oriented. Set-induction and achievement of goals	Group themselves as assigned with subtasks or contents take down by each student	Curiosity for teamwork" in each group.
2	Going concern concept Business Entity concept materiality convention.	Lists and explains the two concepts and the convention to Group 1 and supervises the "expert" in the group to teach	Group 1 assigned with the two concepts and one convention making it simplified	"Expert" teaches and interact with the members of Group 1. Each student defines and explains the two concepts and one convention	Explanation of the concepts and a convention
3	Cost concept money measurement concept	Lists and explains the two concepts to Group 2 and supervises the "experts" or group head teaches	Group 2 assigned with two concepts making it manageable	"Expert" teaches and interacts with the members of Group 2. Each student defines and explains the two concepts.	Interdependence and explanation of concepts
4	Dual Aspect (Double Entry) concept Accrual concept consistency convention	Lists and explains the two concepts and one convention to Group 4 and supervises the "expert" or group head teacher	Group 3 assigned with two concepts and one convention making the group focused.	"Expert" teaches and interacts with the members of group 3 each students defines and explains the two concepts and convention	Interdependence and explanation of concepts/convention
5	Realization	Lists and explains	Group 4	"Expert"	Interdependenc

	concept matching concept	the two concepts and one convention to Group 4 and supervises the "expert" or group head teaches	assigned with two concepts to provide clear direction	teaches and interacts with the members of Group 4. Each students defines and explain the concepts	e and explanation of concepts
6	Objectivity concept periodicity concept prudence/conservatism convention	Lists and explains the two concepts and one convention to Group 5 and supervises the "expert" or group head teaches	Group 5 assigned with two concepts and one convention thereby simplifying to achieve the goals	"Expert" teaches and interacts with the members of Group 5. Each students explains the two concepts and one convention	Explanation of concepts and convention
7	**Application/Evaluation:** To assess the student, all groups 1-5 return to "home" or initial group for a review of contents learned for evaluation	Assess the following cognitive questions to determine achievement of instructional objectives: 1. Define Account concepts and Convention 2. Name at least 5 Accounting concepts 3. Name 3 Accounting 4. Explain each of the accounting conventions concepts named 5. Explain each of the accounting conventions named Teacher provides feedback with remediation after students' response	Jigsaw technique motivates every student to participate and collaborate in every learning task and process when they return to initial or home group. (Mastery of concepts learned)	Students respond and supply answers while the teacher provides feedback with remedy	Acquisition of knowledge of accounting concepts and conventions (Explanation)

Chalkboard Summary:

Accountingconcepts and conventions are the underlying assumptions or principles generally accepted as the bases or rules and practices in the preparation of accounting entries. The concepts are: Going concern, Business Entity, Cost, Money Measurement, Dual Aspects (Double Entry), Accrual, Realization, Matching, Objectivity and periodicity concepts. While accounting conventions are materiality, consistency and prudence/conservation convention.

Assignment: Read, list and explain accounting concepts and conventions.

JIGSAW INSTRUCTIONAL MODEL LESSON PLAN
(EXPERIMENTAL GROUP 1)

LESSON NOTE 2 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Departmental Accounts

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14 - 17 years

Date:

Duration: 1 hr. 20 minutes (Double periods)

Class size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define departmental accounts;

(ii) State at least 5 reasons for departmental account;

(iii) Identify expenses and state basis for apportionment;

(iv) Explain inter-departmental transfers;

(v) Prepare departmental accounts with necessary expenses apportionment including inter-departmental transfer.

Instructional Materials: Wall chart showing departmental accounts format, simplified and Amplified Financial Accounting for senior secondary schools 1 – 3 by Femi Longe, and chalkboard.

Entry Behaviour: The students had studied final accounts and can prepare the entries.

Introduction: The teacher introduces the topic and divides the students and contents based on groupings; with 10 students per group.

INSTRUCTIONAL PROCEDURE FOR JIGSAW LESSON PLAN

Steps	Contents	Teacher's activities	Jigsaw	Student's activities	Skills/knowledge acquisition
1	**Definition of Departmental Account:** Departmental Accounts can be defined as the final accounts prepared in an analytical, columnar or vertical order based on departments or line of goods to show the result of operation for a given accounting period	Introduces the lesson and divided students into five groups with 10 students in each cell "home" group. Selects group head as an "expert" per group to teach after instructions and guidelines.	Enhances interdependence and shared knowledge with the whole contents shared into fire sub-tasks.	Each student in the group takes down the group's sub-task after grouping themselves	Explanation with a team spirit definition of Departmental Accounts with excitement
2	Need or Reasons for Department Accounts: (i) To show the result of each department (ii) to determine the aggregate profits (iii) to compare performance of each department (iv) to take decision about each department (v) to apportion expenses on logical basis (vi) to save cost in recruiting more clerical workers (vii) to monitor progress of each department (viii) to know which department requires extra business services or to be discontinued.				
3	**Basis for**	Explains three	Makes each	Each student	Preparation of

	apportionment of income and expenses in Departmental Accounts: (i) Ratio of purchases – Discounts Received Carriage Inwards, custom duties, goods insurance, warehouse wages (ii) Ratio of floor space-Rents and rates, repairs, maintenance and insurance (iii) Ratio of Sales or Turnover – carriage outwards, discounts allowed, bad debts, sales' related expenses/incomes (iv) Ratio of number of employees – salaries/wages, staff welfare canteen rates and rents, staff insurance medical expenses, staff related expenses (v) volume of space occupied or number of electrical points – Heating and lighting, electricity and power. (vi) Equal Basis – Directors' salaries, advertising, general expenses/insurance, depreciation and where no basis is given. (vii) Direct	and four basis of allocation of income and expenses respectively to Group 3 and 4. Directs the heads (experts) to teach and interacts with each group	group focused with responsibility and reduces confusion	in group 3 and 4 listens and states basis for apportionment of incomes and expenses to appropriate ratio and title. Each student identifies common expenses/incomes as they relate to the ratios	Departmental Account

	expenses/income which affect a particular department				
4	**Inter-departmental transfer** This is the removal or transfer of goods from one department to another when need arises. Here, the value of the goods transferred is deducted from such department and added to the department that received.	Explains and allocate inter-department transfer to Group 5. Directs the students to the illustration on the instructional materials format of Departmental Accounts on the chart	Provides clear focus and gives students clear direction to achieve instructional objectives	Students listen and interact with the "expert" or group head	Preparation of Departmental Accounts with appropriate entries
5	**Application/Evaluation:** Groups 1-5 return to "home" group for a review of the contents learned	The teacher asks the following questions to determine the success of lesson delivery: 1. What is departmental accounts? 2. State at least 5 reasons for departmental accounts 3. Name 10 expenses and match each with appropriate basis of apportionment 4. Briefly explain inter departmental transfer	Promotes curiosity and active participation in the learning process	They answer the questions while the teacher provides immediate feedback with remediation	Knowledge to prepare Department Accounts 2

Chalkboard Summary:

Department Accounts are final accounts of an organization with two or more departments, prepared in a columnar, analytical or vertical order to show the results of operation of each department during business or accounting period. Need for departmental accounts include:

- To ascertain the result of each department
- To determine the aggregate profit of all departments
- To compare results of different departments
- To apportion expenses/income in a pre-determined ratio on logical basis
- To use the result in decision making process, etc

Income and expenses can be apportioned on the basis as follows:

(1) In the ratio of purchases (2) In the ratio of floor space (3) In the ratio of sales (4) In the ratio of number of employees (5) In the proportion of volume of space (6) on equal basis, and (7) to the affected department only inter-department transfer of goods affect two departments.

Assignment: Simplified and Amplified Financial Accounting by F. Longe Page 420, Revision Question 2

JIGSAW INSTRUCTIONAL MODEL LESSON PLAN (EXPERIMENTAL GROUP 1)

LESSON NOTE 3 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Depreciation: Fixed Instalment and Diminishing Balance Method

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14 - 17 years

Date:

Duration: 1 hr. 20 minutes (Double periods)

Class size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define depreciation;

(ii) State at least 4 reasons or important depreciation;

(i) Mention and explain 4 causes of depreciation;

(ii) List at least 4 methods of depreciation;

(iii) Explain fixed instalment and diminishing balance methods of depreciations;

(iv) Prepare relevant books of accounts using either method.

Instructional Materials: (i) Wall chart showing the necessary accounts – Asset, provision for depreciation, profit and loss account and balance sheet (ii) essential financial accounting by Longe and Kazeam (iii) chalkboard.

Entry Behaviour: The students had studied assets in business and can prepare journal or real accounts affecting sales or purchase of assets.

Introduction: The teacher introduces the topic and divides the students and contents based on groupings; with 10 students per group.

INSTRUCTIONAL PROCEDURE FOR JIGSAW LESSON PLAN

Steps	Contents	Teacher's activities	Jigsaw	Student's activities	Skills/knowledge acquisition
1	**Depreciation:** depreciation is the gradual reduction or decrease in the value of a fixed or a non-current asset due to various causes such as wear and tear passage of time, obsolescence, inadequacy, constant usage	Introduces the lesson and divides students into five groups with 10 each making "home group". Selects group head and rains as "expert" to teach in each group. Asks students to mention causes of depreciation in group 1	Enhances motivation interest, task simplification and shared responsibility	Share themselves into five groups as directed. Take down sub-task and interact with the group head. Define depreciation and name causes of depreciation	Explanation of depreciation
2	**Reasons for depreciation provision:** (i) Provision for replacement of asset (ii) Tax paid by a business is reduced (iii) Asset is rewarded for its quota towards production. (iv) It ensures the principle of matching concept as the cost of asset is spread over. (v) It represents cost of service provided by the asset concerned (vi) It shows when the asset should be disposed of or replaced. (vii) It is a guide to estimate disposable value	Assigns 4 reasons each to group 2 and 3 respectively. Guides the experts to teach and interact with the students in each group	Promotes cooperation learning with direction to achieve aims of learning	Students listen and interact with their leaders. Ask questions among themselves. Mention and explain reasons for depreciation	Analytical and cognitive skills in preparing depreciation accounts. Communication skills

	(viii) It shows profit or loss when disposed or sold such asset				
3	**Method of Depreciation** Fixed instalment, diminishing balance, sum of the years' digit, revaluation, market value, annuity, sinking fund, unit of output, depletion and insurance policy	The teachers exposes the groups to all methods of depreciation, and assigned the first two-fixed instalment and diminishing balance methods to group 4 and 5 respectively. Facilitates learning process.	Make learning of sub-task focused, realistic and considers every learner important to complete the whole learning process.	Group 4 and 5 heads teach and interact with students in respective groups while the teacher facilitates the learning process.	Preparation of depreciation accounts using either of the methods.
4	**Fixed instalment method:** This is a method of charging depreciation which allows for an equal or a fixed amount to be charged as depreciation yearly throughout the life of the asset. Formula: C – S = Annual depreciation charge Where C = Cost, S = Scrap or Salvage value and n = number of estimated useful life of asset	The teacher gives to group 4 an illustration to prepare using fixed instalment: A motorcycle cost N50,000 with estimated life of 4 years at the end of which residual value is expected to be N10,000. Show annual depreciation charge. Presents the wall chart showing the accounts	Motivates and enhance of learning objectives	Students in group 4 calculate annual depreciation charge using the formula under the control of the group leader and teacher (Task performance) they also prepare: - Asset Account - Provision for depreciation account - Profit and loss account - Balance sheet extract	Preparation of Depreciation Accounts with analytical, interpersonal and leadership skills
5	**Diminishing Balance Method:** This is method whereby a fixed rate or percentage for depreciation is deducted from the cost in the first year and subsequently	The teacher asks the following questions to determine the success of lesson delivery: 1. What is	Promotes curiosity and active participation in the learning process	They answer the questions while the teacher provides immediate feedback with remediation	Knowledge to prepare Department Accounts

	years such that different account will be charged as depreciation each year with higher amount at the early life of the asset. Formula: when the rate is not provided is $R = 1 - \sqrt[n]{s/c}$	departmental accounts? 2. State at least 5 reasons for departmental accounts 3. Name 10 expenses and match each with appropriate basis of apportionment 4. Briefly explain inter departmental transfer			
6	**Application/Evaluation:** Group 1-5 return to home group for a review of the contents learned	Teacher assesses the success of the lesson delivery with following questions: 1. What depreciation ? 2. Mention 4 causes of the depreciation 3. State 5 reasons for depreciation 4. Name 6 methods of depreciation 5. State 3 differences between fixed instalment and diminishing balance method of depreciation	Provides for readiness and promotes active participation	Promotes active participation in the learning process and follow-up. They answer the questions while the teacher provides feedback with remediation.	Preparation of Depreciation Accounts. Analytical, interpersonal and leadership skills.

Chalkboard Summary:

Depreciation is the gradual reduction in the useful life of an asset due to certain causes such as wear and tear, effluxion of time, obsolesces etc.

There are many reasons for charging depreciation. These include provision for replacement of asset, it represents cost of service provided by the asset; and the asset is rewarded for its quota towards production among others. There are many methods of depreciation: These include fixed instalment and diminishing balance methods among others. Fixed instalment allows for equal amount to be charged as depreciation while diminishing balance method makes use of fixed percentage rate for depreciation charge.

Assignment: A machine cost N20,000 with a residual value of N2000 and expected life of 6 years. Prepare relevant accounts using (i) fixed instalment method; and (ii) Diminishing Balance method.

JIGSAW INSTRUCTIONAL MODEL LESSON PLAN
(EXPERIMENTAL GROUP 1)

LESSON NOTE 4 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Trading, Profit and Loss Accounts

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14 - 17 years

Date:

Duration: 1 hr. 20 minutes (Double periods)

Class size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define trading, profit and loss accounts;

(ii) State the heading of trading, profit and loss accounts;

(iii) Identify and explain items of the trading, profit and loss account,;

(iv) Prepare the format of trading, profit and loss accounts;

(v) Prepare and make entries in trading, profit and loss accounts with necessary adjustment;

Instructional Materials: A chart showing trading, profit and loss accounts with items, Frank Wood Business Accounting 1 by J. O. Omuya, Chalkboard.

Entry Behaviour: The students had studied depreciation and accounting concepts and convention. They can prepare subsidiaries or journals and trial balance.

Introduction: The teacher introduces the lesson and divides the students and contents based on groupings; with 10 students in each group.

INSTRUCTIONAL PROCEDURE FOR JIGSAW LESSON PLAN

Steps	Contents	Teacher's activities	Jigsaw	Student's activities	Skills/knowledge acquisition
1	**Definition of Trading, Profit and Loss Account:** This is a final account prepared to show gross profit or loss, and net profit or loss for a given accounting period.	The teacher introduces the lesson and divides students into 5 groups with 10 students in a cell (Home Group). Shares all the contents into the 5 groups and selects our groups heads as 'experts' to lead and teach each of the groups under his guidance and supervision	Provides for clear roles with shared responsibility and interdependency	They group themselves as assigned with subtask to perform in preparing trading, profit and loss accounts.	Interpersonal skills and team work. Define trading profit and loss accounts
2	**Heading of trading, profit and loss account:** The heading is TRADING, PROFIT AND LOSS ACCOUNTS FOR THEY YEAR ENDED – 31ST DECEMBER 2012	Asks the students in each group to state the heading and also presents the chart showing the heading to the students	Enhances motivation and interest to learn	They view the chart and state the heading of trading, profit and loss account	Prepare trading, profit and loss accounts
3	**Items of the trading, profit and loss accounts:** Purchases, returns outwards, sales, returns inwards, carriage inwards, carriage outwards, cost of sales, good available for sales, opening stock, closing stock, gross profit, expenses rent rates, discount allowed, transport, stationery, electricity, sundry expenses, lighting, insurance, etc. Income – discounts received, rents	Shares all the items with 5 groups after explanation. Present the chart showing the format and items of the trading, profit and loss accounts to the students.	Promotes cooperative learning with high interest and reflective thinking. Provides for critical reasoning and immediate feedback.	Each student in a group indicates those items to be entered on the Debit side and that of the credit side respectively. Prepares from the format and make entries in the trading, profit and loss accounts. Balance each segment of the account identifies items not meant for the	Analytical and interpersonal skills to prepare Trading, Profit and Loss Accounts.

	received, dividends received, etc, accrued expenses and prepaid expenses.			accounts to be transferred balance sheet.	
4	**Format of trading, profit and loss account:** The format for preparing the account can either be "T", or Vertical format	The teach displays the two formats with instructional material – charts; and explains them.	Provides for both individual and group interest	Each student views the chart and listens to explanation. Prepares the format in group basis under the directive of expert and teacher.	Preparation of trading, profit and loss account with "T" format.
5	**Application/Evaluation:** All students return to initial or home group for a review of the contents learned and assessment of success of lesson delivery.	The teacher asks the following cognitive questions: (1) what is trading, profit and loss account? (2) State the heading of trading, profit and loss account. (3) Name 4 debit items and 4 credit item of the trading, profit and loss account. (4) How can gross profit and net profit respectively be arrived at?	Makes students focuses with direction. Provides for reflective thinking.	Students respond to the questions while the teacher interacts to provide feedback with remediation	Preparation of trading, profit and loss account with necessary adjustment.

Chalkboard Summary

Trading, profit and loss accounts are final accounts prepared during the end of accounting period bases on double entry principle, to determine gross profit and net profit or losses respectively, of the business. The heading is "Trading, Profit and loss account for the year ended 31st December, 2012; whichever date is applied. Trading account shows gross profit or loss while profit and loss shows net profit loss. The items of the accounts include opening stock, purchases, sales, cost of sales, cost of goods available for sales, gross profit, carriage inwards, carriage outwards, returns inwards, and all forms expenses and income. The accounts can be prepared with either "T" format or "Vertical" format.

Assignment: Read and solve exercises on trading, profit and loss account in Business Accounting (1) By J. O. Omuya

JIGSAW INSTRUCTIONAL MODEL LESSON PLAN (EXPERIMENTAL GROUP 1)

LESSON NOTE 5 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Profit and Loss Accounts Ratios

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14 - 17 years

Date:

Duration: 1 hr. 20 minutes (Double periods)

Class size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define accounting ratios;

(ii) State at least 5 uses of ratios;

(iii) name the two classes of ratios;

(iv) Identify and name, profit and loss account;

(v) Identify and name balance sheet ratios;

(vi) calculate and interprete simple ratios identified

Instructional Materials: A chalkboard, Essential Financial Accounting by Longe and Kazeem.

Entry Behaviour: The students had studied final accounts and can prepare trading profit and loss accounts.

Introduction: The teacher introduces the topic and divides the students and contents based on groupings; with 10 students per group.

INSTRUCTIONAL PROCEDURE FOR JIGSAW LESSON PLAN

Steps	Contents	Teacher's activities	Jigsaw	Student's activities	Skills/knowledge acquisition
1	**Definition of Accounting Ratios:** These are the expression of value relationships in percentage, numbers or figures to serve as indications to study, measure, appraise and interprete business' liquidity, activity, profitability and coverage of obligations.	Introduces the lesson and divides students into five groups; each with a head (expert) to teach respective group under strict control of the teacher. Divides contents into five groups.	Simplifies tasks and creates curiosity to learn	Groups themselves as assigned and take down their sub-task	Teamwork and interpersonal skills
2	**Uses of Ratios:** ⇒ To compare two or more sets of accounts ⇒ Assist management to formulate future plans ⇒ Enhance ascertainment of business trends ⇒ Help in preparing budget ⇒ Basis for measurement and interpretation of accounting ⇒ Preparation of industrial averages ⇒ Measurement of ability of entity	Explains each of the uses and assigned it to Group 1 for the leader or expert to teach them. Directs and monitors the leader's teaching	Creates motivation and high interest	The leader of expert teachers the group. Students interact and state the uses of accounting ratios	Cognitive explanation
3	**Uses of Ratios:** (i) Trading, Profit & Loss Ratios; (ii) Balance sheet ratios. **Identification of the ratios:** Average stock, rate of turnover, gross profit to sales, net profit to sales (GP2)	Explains and illustrates the calculation of each ratio with their formula. Provides the formular to each of the groups on the chalkboard. Shares the ratios to Group 2,3,4 and 5 assists students in each	Gives room for critical thinking on problem-based ratios. Creates senses of belonging to a group and contents	Identify the ratios and use the formula to calculate each ratio and interprete it	Calculation and interpretation of ratios. Problem-solving and teamwork.

	expenses ratios – individual expenses to total expenses ratio, expenses to sales; mark-up, margin (GP3). Capital owned, capital employed, working capital, current ratio, Acid Test ratio (GP4). Return on capital employed, Assets turnover, stock to current assets, debtors ratio, creditors ratio (GP5)	group to interprete each ratio			
4	Formula of some ratios: Average stock = Opening stock plus closing stock divided by 2, stock turnover ratio = cost of sales divided by average stock Gross profit sales = Gross Profit divided by sales times 100. Mark-up = Profit divided by cost price times 100. Margin = Profit divided by selling price times 100; etc	Write out all the ratios' formula on the chalkboard and explains them with appropriate interpretations	Mastery of task is made possible. Internalization is ensured	Copy and apply formula for the calculation of the ratios in each group	Calculation and interpretation of ratios
5	Application/Evaluation: To assess the students, all the groups return to the home group for a review of contents learned.	The teacher asks the following questions to determine the success of lesson delivery: 1. What are accounting ratios? 2. State at least 5 uses of ratios 3. (a) Name two classes or ratios (b) Name 5 trading, profit and loss ratios (c) Name 5 balance sheet ratios. 4. State the formula for calculating the following	Provides collaborative learning with clear focus	Students answer the questions while the teacher provides feedback with remediation.	Identification, preparation, and calculation of accounting ratios

		ratios: ⇒ Average stock ⇒ Rate of turnover ⇒ Working capital ratio ⇒ Markup, and ⇒ Margin			

Chalkboard Summary

Ratios are expression of value relationships in percentage, numbers or figures for possible interpretation of business trends. There are many uses of ratios; such as comparing more sets of accounts, etc. There are trading, profit and loss ratios, and balance sheet ratios. Some of the ratios include, average stock, stock turn ratio, Gross Profit to sales ratio, Acid test ratio, working capital ratio, Debtors and creditors ratios, etc.

Assignment: Read on Accounting Ratios

JIGSAW INSTRUCTIONAL MODEL LESSON PLAN (EXPERIMENTAL GROUP 1)

LESSON NOTE 6 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Control Accounts

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14 - 17 years

Date:

Duration: 1 hr. 20 minutes (Double periods)

Class size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define control accounts;

(ii) Name two divisions of control accounts;

(iii) State principles and uses of control accounts;

(iv) Define and prepare sales ledger control account;

(v) Define and prepare purchases ledger control account;

Instructional Materials: A chalkboard, charts showing sales and purchases ledger control accounts, essential financial accounting by Longe and Kazeem.

Entry Behaviour: The SS2 students can prepare general ledger and post transactions into accounts relating to debtors and creditors respectively.

Introduction: The teacher introduces the lesson and divides the students and contents into five groups.

INSTRUCTIONAL PROCEDURE FOR JIGSAW LESSON PLAN

Steps	Contents	Teacher's activities	Jigsaw	Student's activities	Skills/knowledge acquisition
1	**Definition of control account:** These are accounts in the general or nominal ledger to which items posted separately to individual accounts in a subsidiary ledger are grouped and posted in totals for debtors or creditors respectively to reflect each totals balance. The control accounts is otherwise called "Total" or "memorandum" Accounts. Divisions of control accounts: The two main divisions of control accounts are; (i) Sales ledger (Debtors) control account (ii) Purchases ledger (creditor) control account	The teacher introduces the lesson and divides students, into 5 groups with 10 students is a cell (Home Group). Appoints the heads and trains as expert's for each group. Assigns definition and main divisions of control accounts to Group one.	Make students focused and assigned sub-tasks to be accounted for. Involves students.	They group themselves with the assigned contents per group. Each group defines and names main divisions of control accounts. Group 1 expert teaches and interacts with students under the guidance of the teacher.	Interpersonal role and teamwork Defines control account and state main division.
2	**Principles of control accounts:** If opening balance is given, total entries that goes to increase the balance will be added while total entries that goes to reduce the balance will be deducted to have closing balance of debtors	Group 2 is assigned with principles and uses of control accounts by the teacher. The teacher facilitates their interactions with the group head (expert).	Involves students in their assigned tasks by arousing interest and participation	Expert teaches and interacts with the students in the group under the supervision of the teacher.	Preparation of control accounts

	and creditors respectively Uses/Advantages of control accounts: (i)Location of errors (ii) Deterrent against fraud (iii) speedy computation of aggregate balance (iv) it ensures division of labour (v) ascertain debtors and creditors balances (vi) assist preparation of final account (vii) decision making is rapt (viii) possibility of contra entries. (ix) they check ledger entries as they rate to accuracy				
3	**Sales ledger (Debtors) Control Account:** This is the control account for the summary of all debtors which represents all entries posted to sale ledger. Items of sales ledger Bad debts, Discount allowed, Returns Inwards, cash refund, Dishonoured cheques, credit Sales, Bill receivable, cash from debtors. Preparation of sales ledger control account:	Group 3 is assigned with sales ledger (Debtors) control account. The expert teaches and interacts with the students under the facilitator (teacher). The teacher presents the chart	Provides a task with focus and direction to achieve learning objective	Student interact under the head (expert) and prepare sales ledger control accounts	Preparation of Sales ledger control accounts
4	**Purchases ledger**	Group 4 and 5	Gets	Students	Preparation of

	(creditors) control account: This is the control account for the summary of all creditors which represent all entries posted to purchases or bought ledger. Items of purchases ledger: Returns outwards, discount received, cash or cheque payment to creditor, credit purchases, contra. Preparation of purchases ledger control	assigned with purchases ledger (creditors) control accounts. The experts teach and interacts with the students under the facilitator (teacher). The teacher presents the chart	students involved and accountable for their learning	interacts and learn under the heads (experts) and prepare sales ledger control account	creditors control accounts.
5	**Application/Evaluation:** Group 1 5 return to "home" group for a review of contents learned for evaluation.	To determine the success of lesson delivery, the teacher asks the following questions: 1. What is control account? 2. Name 2 divisions of the account and state principles of control account 3. State at least 5 uses of control account 4. What is sales ledger control account 5. What is creditors control account?	Ensure mastery of concepts and treatment of account	Students answer questions asked while getting feedback and remediation from the teacher	Explanation of concepts and preparation of control accounts.

Chalkboard Summary:

Control Accounts are accounts summarized into sales purchases ledger or debtors and creditors control accounts respectively. The uses of control accounts include: helps to locate errors, acts as deterrent against fraud, helps in speedy computation of aggregate balance, ensures division of labour, etc. In the principles of control accounts if opening balance is determined, total of entries that goes to increase the balance will be added while total of entries that goes to reduce the balance will be subtracted to have the closing balance of debtors and creditors respectively.

Assignment: 1 State the principles of control account

2 Solve exercise 17.2 page 176 Essential Financial Accounting (3^{rd}Ed.) by Longe and Kazeem

APPENDIX D

GUIDED INQUIRY INSTRUCTIONAL MODEL LESSON PLAN (EXPERIMENTAL GROUP 2) LESSON NOTE 1 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Accounting Concepts and Conventions

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14 - 17 years

Date:

Duration: 1 hr. 20 minutes (Double periods)

Class size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define accounting concepts and conventions;

(ii) Name at least 5 accounting concepts;

(iii) Name 3 accounting conventions;

(iv) Explain each of the accounting concept

(v) explain each of the accounting convention named;

(vi) explain each of the accounting convention named

Instructional Materials: Essential financial Accounting by Longe and Kazeem, Chalkboard and Chalk.

Instructional Procedure: Guided Inquiry Model Model/Technique

Entry Behaviour: The students had studied and can prepare relevant books of account with double entry principle.

Introduction: The teacher introduces the topic and informs the student of the behaviour expected from them during and at the end of lesson delivery based on instructional objectives.

INSTRUCTIONAL PROCEDURE FOR GUIDED INQUIRY LESSON PLAN

Steps	Contents	Teacher's activities	Guided inquiry technique	Student's activities	Skills/knowledge acquisition
1	**Definition of Accounting concepts and convention:** These are the fundamental accounting polices generally accepted as principles, bases, rules and practices or assumptions, used in the preparation of accounting entries	Introduces the lesson in steps and directs them on various learning tasks associated with accounting concepts and conventions – Asks students to define the concepts and convention. States the relevance of the concepts in accountings.	Enhances set-induction	Students defined account concepts and convention as put down on the chalkboard. They ask questions the application and relevance of the concepts in accounting.	Definition of accounting concepts and convention.
2	Going concern concept-Business Entity concept – cost concept	Teacher explains each of the concepts as applicable to recordings in the books of accounts. Direct the students attention and asks them to explain same.	Stimulus variation and simple repetition	Students identify going concern, business entitled and cost concepts; and explains each concept as directed and guided by the facilitator. They ask questions for a feedback and remediation.	Critical thinking and construction of knowledge through guidance.
3	Money Measurement concept - Dual Aspect concept	Teacher explains the concepts and asks students guided question based on the explanations.	Enhances students to be focused and proactive	Students identify the concepts, explain each concept as guided and ask questions, either for further explanation or clarifications of the concepts	Explanation of accounting concepts
4	Realization concept matching concept	Explains concepts and asks students guided questions based on the contents taught	Enhance students' interest and motivation	Students identify, explains the concepts and ask questions where necessary	Explanation of accounting concepts

5	Objectivity concept Periodicity concept	Explains and tech concepts Asks guided questions on the explanation of the concepts	Gets Students involved to achieve learning goals	Students identify, explains the concepts and ask for detailed explanation	Explanation of accounting, concepts
6	Materially convention Consistency convention Prudence/conservatism convention	Explains and directs students to identify each convention with explanation. Ask guided questions for remediation. Directs the students to copy notes	Gives the students room for interaction and questioning on accounting concepts and conventions.	Student identify, explains the conventions and ask for detailed clarification. They copy notes as directed by the facilitator on the chalkboard.	Explanation of accounting conventions.
7	Application/Evaluation: The level of understanding the students is assessed through asking questions and assignments.	The teacher asks the following 1. Define accounting concepts and conventions	Enhances cognitive growth of the students and makes learning realistic	Students respond and answer to the questions while the teacher provides for remediation on difficulties	Explanation of accounting concepts and conventions.

Chalkboard Summary

Accounting concepts and conventions are the underlying assumptions or principles generally accepted as the bases or rules and practices in the preparation of accounting entries. The concepts are: Going concern, Business Entity, Cost, Money Measurements, Dual Aspects (Double Entry), Accrual, Realization, Matching, Objectivity and periodicity concepts. While accounting conventions are materiality, consistency and prudence/conservation convention.

Assignment: Read, list and explain accounting concepts and conventions.

GUIDED INQUIRY INSTRUCTIONAL MODEL LESSON PLAN (EXPERIMENTAL GROUP 2)

LESSON NOTE 2 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Departmental Accounts

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14 - 17 years

Date:

Duration: 1 hr. 20 minutes (Double periods)

Class size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define Departmental accounts;

(ii) State at least 5 reasons for departmental account;

(iii) Identify expenses and state basis for apportionment;

(iv) Explain inter-departmental transfers;

(v) Prepare departmental accounts with necessary expenses apportionment including inter-departmental transfer;

Instructional Materials: Wallchart showing departmental accounts format, simplified and Amplified Financial Accounting for senior secondary schools 1-3 by Femi Longe, and chalkboard

Entry Behaviour: The students had studied and can prepare relevant books of account with double entry principle.

Introduction: The teacher introduces the lesson and informs the students what they are expected to perform during and at the end of lesson delivery in line with instructional objectives.

INSTRUCTIONAL PROCEDURE FOR GUIDED INQUIRY LESSON PLAN

Steps	Contents	Teacher's activities	Guided inquiry technique	Student's activities	Skills/knowledge acquisition
1	**Definition of Departmental Account:** Departmental Accounts can be defined as the final accounts prepared in an analytical, columnar or vertical order based on departments or line of goods to show the result of operation for a given accounting period	Teacher introduces lesson in steps, demonstrates and direct the students on various learning tasks associated with Departmental Accounts. Ask students to define departmental accounts	Structuring situation to motivate students act like the teacher with readiness (Set-induction)	Students define departmental accounts and ask questions relating to the introduction	Definition of Department Account
2	Need of Reasons for Department Accounts: (i) To show the result of each department (ii) to determine the aggregate profits (iii) to compare performance of each department (iv) to take decision about each department (v) To apportion expenses on logical basis (vi) to save cost in recruiting more clerical workers (vii) To monitor progress of each department (viii) To know which department requires extra business services or to be discontinued.	Teacher general discussion on need or reasons for departmental accounts. Directs and asks students to state the need on their own	Provides for interaction with curiosity	Students ask the teacher to offer detailed explanation of reasons for departmental accounts. Students listen to explanation. Students state the need or reasons based on the teachers' directives.	Cognitive and affective skills as they state the need or reasons for departmental accounts.
3	Basis for apportionment of income and expenses in departmental Accounts: (i) Ratio of purchases – Discounts received carriage inwards, custom duties, goods insurance, warehouse wages (ii) ratio of floor	Teacher explains the basis of apportionment of income and expenses in departmental accounts teacher classifies all common expenses and income to appropriate ratio basis. Asks and directs students to	Reduces confusion, perplexity and creates learning atmosphere to achieve stated objectives.	Students identify all common income and expenses associated with departmental account. They classify and apportion these expense on appropriate basis. Prepare	Analytical and recording skills

	space – rents and rates, repairs, maintenance and insurance (iii) Ratio of sales or turnover – carriage outwards, discounts related expenses/incomes (iv)Ratio of number of employees – salaries/ways, staff welfare, canteen races and rents, staff related expenses (v) volume of space occupied or number of electrical points- Heating and lighting, electricity and power. (vi) Equal Basis- Directors' salaries, advertising, depreciation and where no basis is given. (vii) Direct expenses/income which affect a particular department.	do same teacher presents the chart to prepare departmental trading profit and loss account on the chalkboard.		the departmental trading profit and loss accounts as directed by the teacher into their notes. They ask questions for clarification where necessary .	
4	Inter-department transfer: This is the removal or transfer of goods from one department to another when need arises. Here, the valve of the goods transferred is deducted from such department and added to the department received.	The teacher explains the inter-departmental transfer and its implication in the affected departments and goods. Directs and asks the students to do same. Makes entries with such transfer in the account.	Improves anxiety to learn with confidence and reflective thinking	Students after due attention explain inter-departmental transfer as directed. Prepare and enter relevant entries in departmental trading, profit and loss accounts including departmental transfer. Ask questions where necessary for remediation.	Inter-personal and analytical skills
5	Application/Evaluation: The level of understanding is assessed through asking questions, demonstration in class and assignments.	The teacher asks the following questions to determine the success of lesson delivery: 1. What is departmental accounts? 2. State at least 5 reasons for departmental	Enhance active participation	Students respond and answer to the questions while the teacher provides immediate feedback with remediation.	Preparation of departmental accounts.

		accounts 3. Name 10 expenses and match each with appropriate basis of appointment. 4. Departmental transfer.			

Chalkboard Summary:

Department Accounts are final account of an organization with two or more departments, prepared in a columnar, analytical or vertical order to show the result of operation of each department during business or accounting period.

- To ascertain the result of each departments
- To determine the aggregate profit of all departments
- To compare results of different departments
- To apportion expenses/income in a pre-determined ratio on logical basis
- To use the result in decision making process, etc.

Income and expenses can be apportioned on the basis as follows:

(1) In the ratio of purchases (2) In the ratio of floor space (3) In the ratio of sales (4) In the ratio of number of employees (5) In the proportion of volume of space (6) On equal basis, and (7) To the affected department only. Inter-departmental transfer of goods affect two departments.

Assignment: Simplified and Amplified Financial Accounting by F. Longe Page 420, Revision Question 2.

GUIDED INQUIRY INSTRUCTION MODEL LESSON PLAN (EXPERMENTAL GROUP 2)

LESSON NOTE 3 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Depreciation: Fixed Instalment and Diminishing Balance Methods

Gender: Mixed

Class: Senior Secondary Two (SS2)

Age: 14 -17 years

Date:

Duration: 1 hr.20 minutes (Double periods)

Class Size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define depreciation;

(ii) State at least 4 reasons or important of depreciation;

(iii) Mention and explain 4 causes of depreciation;

(iv) List at least 4 methods of depreciation;

(v) Explain fixed instalment and diminishing balance mothers of depreciations;

(vi) Prepare relevant books of accounts using either methods.

Instructional Materials: (i) Wall chart showing the necessary accounts- Asset, Provision for depreciation, profit and loss account and Balance sheet (ii) Essential Financial Accounting by Longe and Kazeam (Chalkboard).

Entry Behaviour: The students had studied and can prepare relevant books of account with double entry principle.

Instruction: The teacher introduces the lesson and informs the students what they are expected to perform during and at the end of lesson delivery based on lesson's instructional objectives.

INSTRUCTIONAL PROCEDURE FOR GUIDED INQUIRY LESSON PLAN

Steps	Contents	Teacher's activities	Guided inquiry technique	Student's activities	Skills/knowledge acquisition
1	**Definition of Depreciation:** Depreciation is the gradual reduction or decrease in the value of a fixed or a non-current asset due to various causes such as wear and tear passage of time, obsolescence, inadequacy, constant usage.	Teacher introduces the lesson in steps, demonstrates and directs the students on depreciation accounts learning tasks. Directs all students to define depreciation after brief illustration of a new and a old assets.	Enhances his interest generation and students' readiness.	Students listen and pay attention to illustration of old and new assets acquired. Students defined depreciation based on the illustration as demanded by the teacher. Students ask questions on old and new assets-differences.	Critical thinking skills.
2	**Reasons for depreciation provision:** (i) Provision for replacement of asset (ii) Tax paid by a business is reduced. (iii) Asset is rewarded for its quota towards production. (iv) It ensures the principle of matching concept as the cost of asset is spread over. (v) It represents cost of service provided by the asset. (vi) It shows when the asset should be disposed of or replaced. (vii) It is a guide to	Tech and explains reasons for depreciation provision. Directs and asks the learners to state the reasons for depreciation.	Simplifies tasks based on steps to achieve aims.	They listen to explanation of reasons for depreciation. Students state reasons for depreciation as directed by the teacher. They ask questions for more detailed explanation.	Critical and analytical skill.

	estimate disposable value. (viii) It shows profit or loss when disposed or sold such asset.				
3	**Methods of Depreciation:** Fixed instalment, diminishing balance, sum of the years' digit, revaluation, market value, annuity, sinking fund, unit of output, depletion and insurance policy.	The teacher mentions and lists out all methods of deprecation on the chalkboard. The teacher explains first three methods and asks students questions based on explanation made.	Enhances motivation and process.	They listen to explanation and write down all methods of depreciation learned. They ask questions on areas to that need further explanation. They answer and interest with the teachers through questioning.	List and mention various methods of depreciation.
4	**Fixed instalment method:** This is a method of charging depreciation which allows for an equal or a fixed amount to be charged as depreciation yearly throughout the life of the asset. Formula: $\frac{C - S}{n}$ = Annual depreciation charge Where C = Cost, S = Scrap or Salvage value and n = number of estimated useful life of asset	The teacher provides illustration with the chart on the board. Calculates depreciation using the formula. The teacher posts the items to relevant accounts – Asset Account, Depreciation account, profit and loss account and balance sheet extract.	Enhances clarification and promotes simplification of tasks.	Students pay attention to the teacher and calculate annual depreciation charge employing the formula given. They post the items to relevant accounts as directed by the teacher. They ask questions relevant to the sub-task treated.	Preparation of depreciation account
5	**Diminishing Balance Method:** This is method	The teacher provides illustration with	Enhance achievement of lesson	Students pay attention to the teacher	Preparation of depreciation account.

	whereby a fixed rate or percentage for depreciation is deducted from the cost in the first year and subsequence years such that difference account will be charged as depreciation each year with higher amount at the early life of the asset. Formula when the rate is not provided is $r = 1 - \sqrt[n]{s/c}$	the chart on the board. Calculates depreciation using the formula. The teacher posts the items as they affect relevant accounts to the balance sheet extract.	objectives	and calculate annual depreciation charge employing the formula given. They post items to relevant accounts as directed by the teacher. Students ask relevant questions on the sub-task treated.	
6	**Application/Elevation:** The level of understating is assessed through asking questions, demonstration in class and assignments.	Teacher assess the success of the lesson delivery with following questions: 1. What is depreciation? 2. Mention 4 causes of the depreciation. 3. State 5 reasons for depreciation 4. Name 6 methods of depreciation 5. State 3 differences between fixed instalment and Diminishing Balance Methods of depreciation.	Makes learning real and provides for retention and recalling	Students answer the questions under the guidance of the facilitators	Preparation of depreciation accounts

Chalkboard Summary

Depreciation is the gradual reduction in the useful life of an asset due to certain causes such as wear and tear, defluxion of time, obsolescence etc.
There are many reasons for charging depreciation. These include provision for replacement of assets, it represents cost of service provided by the asset; and asset is rewarded for its quota towards production among others. There are many methods of depreciation: these include fixed instalment and diminishing balance methods among others. Fixed instalment allows for equal amount to be charge as depreciation while diminishing balance method makes use of fixed percentage rate for depreciation charge.

Assignment: A machine cost N20,000 with a residual value of N2000 and expected life 6 years. Prepare relevant accounts using (i) fixed instalment method; and (ii) diminishing balance method.

GUIDED INQUIRY INSTRUCTIONAL MODEL LESSON PLAN (EXPERIMENTAL GROUP 2)

LESSON NOTE 4 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Trading Profit and Loss Accounts

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14-17 years

Date:

Duration: 1hr.20minutes (Double periods)

Class Size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define trading profit and loss accounts;

(ii) State the heading of trading, profit and loss accounts;

(iii) Identify and explain items of the trading, profit and los

(iv) Prepare and make entries in trading, profit and loss accounts with necessary adjustment

Instructional Materials: A chart showing trading, profit and loss account format with items, Frank wood Business Accounting 1 by J. O. Omuya, Chalkboard.

Entry Behaviour: The student had studied depreciation and accounting concepts and convention. They can prepare subsidiaries or journals and trial balance.

Introduction: The teacher introduces the lesson and informs the students what they are expected to perform during and at the end of lesson delivery based on instructional objectives.

INSTRUCTIONAL PROCEDURE FOR GUIDED INQUIRY LESSON PLAN

Steps	Contents	Teacher's activities	Guided Inquiry Technique	Students' activities	Skill/knowledge acquisition
1	Definition of Trading, Profit and Loss Account: This is a final account prepared to show gross profit loss, and net profit or loss for a given accounting periods.	Teacher introduces the lesson in steps and directs students on trading, profit and loss accounts learning tasks. Directs and guides students to define trading, profit and loss account. Asks them questions on trading activities relating to income and expenses.	Makes learning purposeful and meaningful	Students listen to the teacher. They define trading, profit and loss account as put down on the chalkboard. They mention trading incomes and expenses to determine profit or loss.	Definition and explanation of trading, profit and loss account.
2	Heading of trading, profit and loss account: The heading is TRADING PROFIT AND LOSS ACCOUNTS FOR THEY YEAR ENDED – 31ST DECEMBER 2012.	The teacher states, write out and emphasizes on the need for the heading of trading, profit and loss account. Asks the students to repeat after him – trading, profit and loss account for the year ended- 31st Dec. as presented on the chart.	Provides set-induction and clarifies objectives	They pay attention to the teacher and states the heading of the trading profit and loss account, repeating after the teacher they copy into their notes.	Retention and recalling of the heading of trading, profit and loss account.
3	**Items of the trading, profit and loss accounts:** purchases, returns outwards, sales, returns inwards, carriage inwards, carriage outwards, cost of sales, good Available for sales, opening stock, closing stock, Gross profit, Expenses rent rates, discount allowed, transport, stationery, electricity , Sunday expenses, lighting, insurance, etc. Income-Discounts	Teaches and explains all the items indicated on the chart asks the students to mention trading, profit and loss account items.	Directs learning to the need of the students.	Students listen to listing and explanation of each of the items of trading, profit and loss account as present on the wall chart. They mention all the items listed out as directed by the teacher.	Preparation of trading, profit and loss account.

	Received, Rents Received, Dividends received, etc, Accrued expenses and prepaid expenses.				
4	**Format of trading, profit and loss account:** The format for preparing the account can either be "T", or Vertical format	The teacher presents and displays the two formats with the charts on the chalkboard. Teaches students on the debit and credit sides entries for identification and recording	Provides feedback from students to teacher and vice versa.	Students view the two formats. Copy them and make relevant entries in the debits and credit sides of trading, profit and loss account with precision. Ask teacher for further explanation.	Preparation of trading, profit and loss account.
5	**Application/Evaluation: The level of understanding of the students is assessed through asking questions, demonstration and assignments.**	The teacher asks the following questions: (1) What is trading, profit and loss account? (2) State the heading of trading, profit and loss account (3) Name 4 debit items and 4 credit item of the trading, profit and loss account. (4) How can gross profit and net profit respectively be arrived at?	Provides focused learning and involvement	Students answer to the questions asked while the teacher provides some remediation where necessary.	Preparation of trading, profit and loss account.

Chalkboard Summary:
Trading profit and loss accounts are final account prepared during the end of accounting period bases on double entry principle, to determine gross profit and net profit or losses respectively, of the business. The heading is "Trading, Profit and Loss Account for the year ended-31st Dec.2012; whichever date is applied. Trading account shows gross profit or loss while profit and loss how's net profit or loss. The items of the accounts include opening stock, purchases, sales, cost of sales, cost of goods available for sales, gross profit, carriage inwards, carriage outwards, returns inwards and all forms expenses and income. The accounts can be prepared with either "t" format or "Vertical" format.

Assignment: Read and solve exercises on trading, profit and loss account in Business Accounting (I) By J. O. Omuya.

GUIDED INQUIRY INSTRUCTIONAL MODEL LESSON PLAN (EXPERIMENTAL GROUP 2)

LESSON NOTE 5 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting
Lesson: Profit and Loss Account Ratios
Class: Senior Secondary Two (SS2)
Gender: Mixed
Age: 14-17 years
Date:
Duration: 1hr.20minutes (Double periods)
Class Size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define accounting ratios;
(ii) State at least 5 uses of ratios;
(iii) Name the two classes of ratio
(iv) Identify and name, profit and loss ratios;
(v) Identify and name balance sheet ratio;
(vi) Calculate and interprete simple ratios identified

Instructional Materials: A chalkboard, Essential Financial Accounting by Longe and Kazeem

Entry Behaviour: The students had studied depreciation and accounting concepts and convention. They can prepare subsidiaries or journals and trial balance.

Introduction: The teacher introduces the topic and informs the students what they are expected to perform during and at the end of lesson delivery based on instructional objectives.

INSTRUCTIONAL PROCEDURE FOR GUIDED INQUIRY LESSON PLAN

Steps	Contents	Teacher's activities	Guided Inquiry Technique	Students' activities	Skill/knowledge acquisition
1	**Definition of Accounting Ratios:** These are the expression of valve relationships in percentage, numbers or figures to serve as indications to study, measure appraise and interprete business' liquidity, activity, profitability and coverage of obligations.	The Teacher introduces the lesson in steps and directs students to learn various tasks on accounting ratios. Asks the students to define accounting ratios after him.	Provides for readiness and curiosity	Students define accounting ratios after the teacher. Ask questions on the need and uses of ratios in accounting	Definition of Accounting Ratios.
2	**Uses of Ratios:** - To compare two or more sets of accounts - Assist management to formulate future plans. - Enhance ascertainment of business trends - Help in preparing budge - Basis for measurement and interpretation of accounting - Preparation of industrial averages - Measurement of ability of entity.	The teacher lists and explains the uses of ratios in accounting. Direct the students to mention ratios taught	Enhances interest and high motivation	Students listen to explanation of cases of ratios. Ask questions for clarification. Mention all the ratios learned.	Explanation of different uses of ratios
3	**Classification of Accounting Ratios:** (iii) Trading, Profit & Loss Ratios; and Balance sheet Ratios. Identification of the ratios: Average stock, Rate of turnover, Cross Profit to sales, net profit to Sales (GP2). Expenses Ratios-individual expenses to total expenses ratio, expenses to sales;	The teacher classified and calculates each ratio on the chalkboard. Direct the students to do same. The teacher interpretes the ratios and guide the students to do same	Makes learning real to achieve objective	Students ask questions where necessary and calculate ratios as directed into their notes. They further interprete the ratios as directed.	Calculation and interpretation of different ratio

	make-up, margin (GP3). Capital owned, capital employed, working capital, current ratio, Acid Test ratio(GP4). Return on capital employed, Assets, turnover, stock to current Assets, Debtors ratio, Creditors ratio (GP5)				
4	**Application/Evaluation:** The level of understanding of students is assessed through asking questions, demonstration and assignments.	The teacher asks the following questions to determine the success of lesson delivery: 1. What are accounting ratios? 2. State at last 5 uses of ratios 3. (a) Name two classes or ratios (b) Name 5 trading, profit and loss ratios (c) State the formula for calculating the following ratios: ⇒ Average stock ⇒ Rate of turnover ⇒ Working capital ratio ⇒ Markup and ⇒ Margin	Help achieve performance objectives with follow-up	Students answer the questions while the teacher provides some remediation. And follow-up	Calculation and interpretation of accounting ratios

Chalkboard Summary:

Trading, profit and loss accounts are final accounts prepared during the end of accounting period bases on double entry principle, to determine gross profit and net profit or losses respectively, of the business. The heading is "Trading, Profit and Loss Account for the year ended – 31st December 2012; whichever date is applied. Trading account shows gross profit or loss while profit and loss how's net profit or loss. The items of the accounts include opening stock, purchases, sales, cost of sales, cost of goods available for sales, gross profit, carriage inwards, carriage outwards, returns inwards, and all forms expenses and income. The accounts can be prepared with either "T" format or "Vertical" format.

Assignment: Read and solve exercises on trading, profit and loss account in Business Accounting (1) By J. O. Omuya

GUIDED INQUIRY INSTRUCTIONAL MODEL LESSON PLAN
(EXPERIMENTAL GROUP 2)

LESSON NOTE 6 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting
Lesson: Control Accounts
Class: Senior Secondary Two (SS2)
Gender: Mixed
Age: 14-17 years
Date:
Duration: 1hr.20 minutes (Double periods)
Class Size: 50 students

Instructional Objectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(i) Define control accounts;
(ii) Name two divisions of control accounts;
(iii) State principles and uses control accounts;
(iv) Define and prepare sales ledger control account;
(v) Define and prepare purchases ledger control account;

Instructional Materials: A chalkboard, Chalts showing sales and purchases ledger control accounts Essential Financial Accounting by Longe and Kazeem

Entry Behaviour: The SS2 students can prepare general ledger and post transactions into accounts relating to debtors and creditors respectively

Introduction: The teacher introduces the topic and informs the students what they are expected to perform during and at the end of lesson delivery based on instructional objectives.

INSTRUCTIONAL PROCEDURE FOR GUIDED INQUIRY LESSON PLAN

Steps	Contents	Teacher's activities	Guided Inquiry Technique	Students' activities	Skill/knowledge acquisition
1	**Definition of control account:** These are accounts in the general or nominal ledger to which items posted separately to individual accounts in a subsidiary ledger are grouped and posted in totals for debtors or creditors respectively to reflect each totals balance. The control accounts is otherwise called "Total" or "memorandum" Accounts **Divisions of control accounts:** The two main divisions of control accounts are: (i) sales ledger (Debtors) control account (ii) purchase ledger (creditor) control account	The teacher introduces the lesson in logical steps and directs students on various tasks in the preparation of control Accounts. The teacher teaches division of control accounts and directs the students for explanation.	Provides set-induction	Students define control accounts as directed and jot down points. They ask questions on the principle and uses of control accounts. They mention divisions of the control and accounts.	Explanation of control accounts
2	**Principles of control accounts:** If opening balance is given, total entries that goes to increase the balance will be added while total entries that goes to reduce the balance will be deducted to have closing balance of debtors and creditors respectively Uses/Advantages of control accounts: (i) Location of errors (ii) Deterrent against fraud (iii) speedy computation of aggregate balance (iv) it ensures division of labour (v) ascertain debtors and creditors balances (vi) assist	Teacher states and explains principles and uses of control accounts. Asks the students to explain same.	Make learning interactive	The students states principles and uses of control account as directed. They ask questions where necessary	Preparation of control accounts

	preparation of final account (vii) decision making is rapt (viii) possibility of contra entries (ix) they check ledger entries as they relate to accuracy				
3	**Sales ledger (Debtors) control Account:** This is the control account for the summary of all debtors which represents all entries posted to sale ledger. Items of sales ledger: Bad debts, discount allowed, returns inwards, cash refund, dishonoured cheques, credit sales, bill receivable, cash from debtors preparation of sales ledger control account:	Teacher presents the chart showing format of debtors control account and makes entries in the ruled debtors account on the board. Directs students to prepare same after explanation	Provide immediate feedback	The student make entries in debtors control accounts in their notes as directed students ask questions where necessary	Preparation of control accounts
4	**Purchases ledger (creditors) control account:** This is the control account for the summary of all creditors which represent all entries posted to purchases or bought ledger. Items of purchases ledger: Returns outwards, discount received, cash or cheque payment to creditor, credit purchases, contra. Preparation of purchases ledger control	Teacher presents the chart showing format of creditors control account and makes entries in the ruled creditors account on the board. Direct students to prepare same after explanation.	Enhance meaningful learning	The students make entries in creditors control account in their notes as directed. They ask questions where necessary	Preparation of control accounts
5	**Application/Evaluation:** The level of understanding is assessed through asking questions, demonstration and assignments.	To determine the success of lesson delivery, the teacher asks the following questions: 1. What is control accounts? 2. Name 2 division of the	Makes learning real and objective-oriented	Students answer the questions while the teacher provides the feedback with remediation	Preparation of control accounts

		account and state principles of control account 3. State at least 5 uses of control account 4. What is sales ledger control account 5. What is creditors control account?			

Chalkboard Summary:

Control Accounts are summarized into sales purchases ledger or debtors and creditors control accounts respectively. The uses of control accounts include: helps to locate errors, acts as deterrent against fraud, helps in speedy computation of aggregate balance, ensures division of labour, etc. In the principles of control accounts if opening balance is determined, total of entries that goes to increase the balance will be added while total of entries that goes to reduce the balance will be subtracted to have the closing balance of debtors and creditors respectively.

Assignment: 1 State the principles of control account

2 Solve exercise 17.2 page 176 Essential Financial Accounting (3rd Ed) by Longe and Kazeem

APPENDIX E

EXPOSITORY INSTRUCTIONAL METHOD LESSON PLAN (CONTROL GROUP)

LESSON NOTE 1 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Accounting Concepts and Conventions

Class: Senior Secondary Two (ss2)

Gender: Mixed

Age: 14-17 years

Date:

Duration: 1 hr. 20 Minutes (Double periods)

Class size: 50 Students

InstructionalObjectives: At the end of the lesson delivery,

SS2 Financial Accounting Students should be able to:

(i) Define accounting concepts and conventions;

(ii) Name at least 5 accounting concepts;

(iii) Name 3 accounting conventions;

(iv) Explain each of the accounting concepts named;

(v) Explain each of the accounting convention named.

Instructional Materials: Essential Financial Accounting by Longe and Kaxeem, Chalkboard and Chalk.

Entry behaviour: The students had studied and can prepared relevant books of account with double entry principle.

Introduction: The teacher introduces and presents the Lesson with the help of a textbook, chalkboard and chalk for illustration.

INSTRUCTIONAL PROCEDURE FOR EXPOSITORY MODEL LESSON PLAN

Steps	Contents	Teacher's activities	Expository technique	Student's activities	Skills/knowledge acquisition
1	Definition of accounting concepts and convention: These are the fundamental accounting policies generally accepted as principles, bases, rules and practices or assumptions, used in the preparation of accounting entries.	The teacher introduces and presents the lesson to the students on accounting concepts and convention. He defines the concepts and conventions and writes out on the board.	Teacher as the only resources for knowledge	Students listen alternatively and write the notes through dictation and some point form the chalkboard	Definition of accounting concept and convention
2	- Going concern concept - Business entity concept - Cost concept	The teacher explains each of the concepts as applicable to recordings in the books of accounts.	Teacher-centred	Students pay attention and take down note	Explanation of concepts
3	- Money measurement concept - Dual Aspect concept - Accrual concept	The teacher teaches the concepts and explain how each is relevant to preparation of books of accounts	Learner-passive	Students to the teachers explanation and copy notes	Explanation concepts
4	- Realization concept - Matching concept	Teacher explain the concepts in relation to bookkeeping entries and direct students to the page in the textbook.	Teacher-dominated	Students pay attention and open the textbook for the application of the concepts	Explanation of concepts
5	- Objectivity concept - Periodicity	Teacher presents and explains the concepts and its implications in	Enhances a one-way interaction	Students creates attention for the	Explanation of concepts

	concept	bookkeeping entries		teacher's explanation and take down notes	
6	- Material convention - Consistency convention - Prudency/conservationism convention	Teacher presents and explains the conventions as they related to the preparation of books of accounts.	Learner's-dependent	Student listen the teacher explanation by the teacher an copy notes	Explanation of accounting conventions
7	- Application / evaluation: The level of understanding is assessed through the teacher's questions only.	The teacher asks the following 1. Define Account concepts and convention 2. Name at least 5 accounting concepts 3. Name 3 accounting convention 4. Explain each of the accounting concepts named 5. Explain each of the accounting concept named Teacher provides feedback with remediation after student response	Enhance contents coverage	Students answer the question as they understand and follow the lesson taught	Explanation of accounting concepts and conventions.

Chalkboard Summary:

Accounting concepts and conventions are the underlying assumption or principles generally accepted as the base or rules and practices in the preparation of accounting entries. The concepts are: Going concern, Business Entity, cost, Money measurement, Dural Aspect (Double Entry), Accrual, Realization, matching, objectivity and periodicity concepts. While accounting conventions are materiality, consistency and prudence/conservation convention.

Assignment: Read, list and explain accounting concepts and conventions.

EXPOSITORY INSTRUCTIONAL MODEL LESSON PLAN
(CONTROL GROUP)

LESSON NOTE 2 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Departmental Accounts

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14-17 years

Date:

Duration: 1 hr. 20 Minutes (Double periods)

Class size: 50 Students

Instructional Objectives: At the end of the lesson delivery,

SS2 Financial Accounting Students should be able to:

(vi) Define accounting concepts and conventions;

(vii) Name at least 5 accounting concepts;

(viii) Name 3 accounting conventions;

(ix) Explain each of the accounting concepts named;

(x) Explain each of the accounting convention named.

Instructional Materials: Wall chart showing departmental accounts format, simplified and amplified Financial Accounting for senior secondary schools 1 – 3 by Femi Longe, and Chalkboard

Entry behaviour: The students had studied and can prepared relevant books of account with double entry principle.

Introduction: The teacher introduces and presents the Lesson with the help of a textbook, chalkboard and chalk for illustration.

INSTRUCTIONAL PROCEDURE FOR EXPOSITORY MODEL LESSON PLAN

Steps	Contents	Teacher's activities	Expository technique	Student's activities	Skills/knowledge acquisition
1	Definition of Departmental Account: Departmental Accounts can be defined as the final accounts prepared in an analytical, columnar or vertical order based on departments or line of goods to show the result of operation for a given accounting period	The teacher introduces and presents the lesson by defining Departmental Accounts. Asks the students to define and take down same.	Teacher's influence on learning process	Students define the lesson and take down notes through dictation	Definition of departmental accounts.
2	**Need or Reasons for Departmental Accounts:** (i) To show the result of each department (ii) to determine the aggregate profits (iii) To compare performance of each department (iv) to take decision about each department (v) to apportion expenses on logical basis (iv) to save cost in recruiting more clerical workers (vii) to monitor progress of each department (viii) to know which department requires extra business services or to be discontinued.	The teacher states and explains need for departmental accounts	Teacher-dominated activities of learning	Students take down the note through dictation	Preparation of departmental accounts
3	**Basis for apportionment of income and expenses in departmental Accounts:** (i) Ratio of purchases-Discounts Received Carriage Inwards, custom duties, goods insurance, warehouse wages (ii)Ratio of floor space-Rents and rates, repairs, maintenance and insurance (iii) Ratio of Sales or Turnover-carriage outwards, discounts allowed, bad debts, sales; related expenses/incomes (iv) Ratio of number of employees-	Teacher identifies, classifies all income and expenses relating to departmental accounts. States and explains the basis of appointment of these expenses. Presents the chart to prepare departmental trading, profit and loss account with appropriate heading. Asks the students to copy from the board.	Teacher as a reservoir of knowledge	Students listen attentively view the chart and listen to demonstration of the accounts on the chalkboard. They copy the accounts into their note.	Preparation of departmental accounts.

	salaries/ways, staff insurance medical expenses, staff related expenses (v) volume of space occupied or number of electrical points –Heading and lighting, Electricity and power. (vi) Equal Basis- Directors' salaries, advertising, general expenses/insurance, depreciation and where no basis is given, (vii) Direct expenses/income which affect a particular department.				
4	**Inter-departmental transfer:** This is the removal or transfer of goods from one department to another when need arises. Here the value of the goods transferred is deducted from such department and added to the department received.	The teacher explains and teaches inter-departmental transfer and its attendant cost implications on the departments and goods affected. The teacher clarifies facts	Teacher's decision to teach only	Students watch the teacher's demonstration and copy notes from the board. Prepare the accounts as presented	Preparation of departmental accounts.
5	**Application/Evaluation:** The level of understanding is assessed through the teachers questions only.	The teacher asks the following questions to determine the success of lesson delivery: (1) What is departmental accounts? (2) State at least 5 reasons for departmental accounts (3) Name 10 expenses and match each with appropriate basis of apportionment. (4) Briefly explain inter-departmental transfer.	Enhances one-way communication to engender students' interest .		

Chalkboard Summary:

Departmental Accounts are final accounts of an organization with two or more departments, prepared in a columnar, analytical or vertical order to show the results of operation of each department during business or accounting period. Need for departmental accounts include:

- ⇒ To ascertain the result of each department
- ⇒ To determine the aggregate profit of all departments
- ⇒ To compare results of different departments
- ⇒ To apportion expenses/income in a pre-determined ratio on logical basis
- ⇒ To use the result in decision making process, etc.

Income and expenses can be apportioned on the basis as follows:

(1) In the ratio of purchase (2) in the ratio of floor space (3) in the ratio of sales (4) in the ratio of number of employees (5) in the proportion of volume of space (6) on equal basis, and (7) to the affected department only. Inter-departmental transfer of goods affect two departments.

Assignment: Simplified and Amplified Financial Accounting by F. Longe page 420, Revision Question 2.

EXPOSITORY INSTRUCTIONAL MODEL LESSON PLAN (CONTROL GROUP)

LESSON NOTE 3 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Depreciation: Fixed Instalment and Diminishing Balance Method

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14-17 years

Date:

Duration: 1 hr. 20 Minutes (Double periods)

Class size: 50 Students

InstructionalObjectives: At the end of the lesson delivery,

SS2 Financial Accounting Students should be able to:

(i) Define depreciation;

(ii) State at least 4 reasons or important of depreciation;

(iii) Mention and explain 4 causes of depreciation;

(iv) List at least 4 method of depreciation;

(v) Explain fixed instalment and diminishing balance method of depreciation;

(vi) Prepare relevant books of accounts using either methods.

Instruction Materials: (i) Wall chart showing the necessary account – Asset, Provision for depreciation, profit and loss account and Balance sheet (ii) Essential Financial Accounting by Longe and Kazeam (iii) Chalkboard.

Instructional Materials: Essential Financial Accounting by Longe and Kazeem, chalkboard and chalk.

Entry Behaviour: The students had studied and can prepare relevant books of account with double entry principle.

Instruction: The teacher introduces and presents the lesson with a textbook, chalkboard and chalks for illustration.

INSTRUCTIONAL PROCEDURE FOR EXPOSITORY MODEL LESSON PLAN

Steps	Contents	Teacher's activities	Expository technique	Student's activities	Skills/knowledge acquisition
1	Definition of Depreciation: Depreciation is the gradual reduction or decrease in the value of a fixed or a non-current asset due to various causes such as wear and tear passage of time, obsolescence, inadequacy, constant usage.	The teacher introduces, presents and defines depreciation. Ask the students to define as stated on the chalkboard before writing down the notes. The teacher identifies new and old bicycle values and state reasons.	Passive involvement	Students pay attention to the teacher and define depreciation. They copy the definition into their notes.	Definition of depreciation
2	Reasons for depreciation provision: (i) Provision for replacement of asset (ii) Tax paid by a business is reduced (iii) Asset is rewarded for its quota towards production. (iv) It ensures the principle of matching concept as the cost of asset is spread over. (v) It represents cost of service provided by the asset concerned. (vi) It shows when the asset should be disposed of or replaced. (vii) It is a guide to estimate disposable value. (viii) It shows profit or loss when disposed or sold such asset.	The teacher enumerates and explains reasons for depreciation	Teacher-dominated	Students listen and take down the reasons into their notes	State reasons for depreciation
3	Methods of Depreciation: Fixed instalment, diminishing balance, sum of the years' digit, revaluation, market value, annuity, sinking fund, unit of output, depletion and insurance policy.	Teacher enumerated various methods of charging depreciation and explain them to learners teacher present the first two methods for treatment	Learner-passive and all about teaching	Students pay attention and copy the methods into the notes. Watch the teacher demonstrates with the first two methods	Preparation of depreciation accounts

4	Fixed instalment method: This is a method of charging depreciation which allows for an equal or a fixed amount to be charge as depreciation yearly throughout the life of the asset. Formula: $\frac{C-S}{N}$ = Annual depreciation Charge Where C = Cost, S = Scraper Salvage value and n = number of estimated useful life of asset	The teacher defines and provides illustration with that chart calculates the depreciation using the formula and posts the items to relevant accounts directs students to the textbook	Teacher-centred	The students gaze at the teacher as he demonstrates on the formula and posting of entries into relevant accounts. They also post the entries into depreciation account and refer to textbooks	Preparation of depreciation account
5	Diminishing Balance Method: This is method whereby a fixed rate or percentage for depreciation is deducted from the cost in the first year and subsequence years such that different account will be charge as depreciation each year with higher amount at the early life of the asset. Formula when the rate is not provide is $r = 1 - \sqrt[n]{s/c}$	The teacher defines and presents illustration with the chart. Calculate the depreciation using appropriate formula; and posts the items to relevant accounts Directs students to the textbook for solution	Solutions from the textbooks	The students gaze at the teacher demonstrates on the formula and posting entries. They follow suit and refer to the textbooks as directed to solve the problems	Preparation of depreciation account
6	Application/Evaluation: The level of understanding is assessed through teacher's questions only	Teacher assess the success of the lesson delivery with following questions: 1. What is depreciation? 2. Mention 4 causes of the depreciation 3. State 5 reasons for depreciation 4. Name 6 methods of depreciation 5. State 3 differences between fixed instalment and Diminishing Balance Methods of depreciation.	Enhance content coverage	Students answer the questions as they understand and follow the lesson taught	Preparation of depreciation accounts.

Chalkboard Summary:

Depreciation is the gradual reduction in the useful life of an asset due to certain causes such as wear and tear, defluxion of time, obsolescence etc. There are many reasons for charging depreciation. These include provision for replacement of asset, it represents cost of service provided by the asset; and asset is rewarded for its quota towards production among others. There are many methods of depreciation: These include fixed instalment and diminishing balance methods among others. Fixed instalment allows for equal amount to be charged ad depreciation while diminishing balance method makes use of fixed percentage rate for depreciation charge.

Assignment: A machine cost N20,000 with a residual value of N2000 and expected life of 6 years. Prepare relevant accounts using (i) Fixed instalment method; and (ii) Diminishing Balance method.

EXPOSITORY INSTRUCTIONAL MODEL LESSON PLAN
(CONTROL GROUP)

LESSON NOTE 4 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Trading, Profit and Loss Accounts

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14-17 years

Date:

Duration: 1 hr. 20 Minutes (Double periods)

Class size: 50 Students

InstructionalObjectives: At the end of the lesson delivery, SS2 Financial Accounting Students should be able to:

(xi) Define trading, profit and loss accounts;

(xii) State the heading of trading, profit and loss accounts;

(xiii) Identify and explain items of the trading, profit and loss account;

(xiv) Prepare the format of trading, profit and loss account ;

(xv) Prepare and make entries in trading, profit and loss accounts with necessary adjustment.

Instructional Materials: A chart showing trading profit and loss account format with items, Frank Wood Business Accounting 1 by J. O. Omuya.

Entry behaviour: The students had studied depreciation and accounting concepts and convention. They and can prepared subsidiaries or journals and trial balance.

Introduction: The teacher introduces and presents the lesson with a textbook, chalkboard and chalk for illustration.

INSTRUCTIONAL PROCEDURE FOR EXPOSITORY MODEL LESSON PLAN

Steps	Contents	Teacher's activities	Expository technique	Student's activities	Skills/knowledge acquisition
1	**Definition of Trading, Profit and loss account:** This is a final account prepared to show gross profit loss, and net profit of loss for a given accounting periods	Teacher introduces and presents the lesson by defining trading, profit and loss accounts. Present this on the board and ask students to bring out textbooks on accounting	Emphasis on teaching	Students listen to the teacher's presentation and bring out accounting textbooks as directed	Preparation of final accounts
2	**Heading of trading, profit and loss account:** The heading is TRADING PROFIT AND LOSS ACCOUNTS FOR THEY YEAR ENDED -31ST DECEMBER, 2012	The teacher states out the heading of the accounts and emphasize on the need for the heading of a given account	One-way interaction	Students listen and take down the heading as presented	Preparation of trading profit and loss account
3	**Items of the trading, profit and loss accounts:** purchase, returns outwards, sales, returns inwards, carriage inwards, carriage outward, cost of sales, Good Available for sales, opening stock, closing stock, Gross profit, expense rent rates, discount allowed, transport, stationery, electricity, Sunday expenses, lighting, insurance, etc. income – Discounts Received, rents Received, Dividends received, etc, Accrued	Teacher identifies all items of trading, profit and loss accounts form the textbook and asks students to refer to their texts.	Enhances contents converge	Students pay attention and refer to their textbooks on financial accounting for the items of final accounts directed.	Preparation of trading profit and loss account

	expenses and prepaid expenses.				
4	Format of trading, profit and loss account: the format of preparing the account can either be "T", or vertical format	The teacher presents the format with the chart on the board. Uses it to make entries directs the students base on format	Consider teaching effective	Students view the format and act as directed. Make entries using their textbooks	Preparation of trading profit and loss account
5	**Application/evaluation:** students level of understanding is assessed through the teacher's questions only	The teacher asks the following question 1. What is trading, profit and loss account? 2. State the heading of trading 3. Name 4 debit items and 4 credit item of the trading, profit and loss account 4. How can gross profit and net profit respectively be arrived at?	Teacher-assumed achievements of instructional objectives	Students respond to the question as they understand and follow the lesson	Preparation of trading profit and loss account

Chalkboard Summary:

Trading profit and loss account are final accounts prepared during the end of accounting period based on double entry principle, to determine gross profit and net profit or losses respectively, of the business. The heading is "Trading, profit and loss account for the year ended- 31st Dec. 2012; whichever date is applied. Trading account shows gross profit or loss while profit and loss how's net profit or, loss. The items of the accounts include opening stock, purchases, sales, cost of sales, cost of goods available for sales, gross profit carriage inwards, carriage outwards, returns inwards, and all forms exposes and income. The accounts can be prepare with either "T" format or "vertical" format.

Assignment: Read and solve exercises on trading profit and loss account in Business accounting (1) Ey J. E. Omuya.

EXPOSITORY INSTRUCTIONAL MODEL LESSON PLAN

(CONTROL GROUP)

LESSON NOTE 5 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Profit and Loss Accounts Ratios

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14-17 years

Date:

Duration: 1 hr. 20 Minutes (Double periods)

Class size: 50 Students

InstructionalObjectives: At the end of the lesson delivery,

SS2 Financial Accounting Students should be able to:

(xvi) Define accounting ratios;

(xvii) State at least 5 uses of ratios;

(xviii) Name the two classes of ratios;

(xix) Identify and name, profit and loss ratios;

(xx) Calculate and interpret simple ratio identified.

Instructional Materials: Essential Financial Accounting by Longe and Kaxeem, Chalkboard and Chalk.

Entry behaviour: The students had studied and can prepared relevant books of account with double entry principle.

Introduction: The teacher introduces and presents the Lesson with the help of a textbook, chalkboard and chalk for illustration.

INSTRUCTIONAL PROCEDURE FOR EXPOSITORY MODEL LESSON PLAN

Steps	Contents	Teacher's activities	Expository technique	Student's activities	Skills/knowledge acquisition
1	**Definition of Accounting Ratios:** These are the expression of value relationship in percentage, numbers of figures to serve as indications to interpret business' liquidity, activity, profitability and coverage of obligations.	Teacher introduces all present the lesson to the students on accounting ratios. The teacher defines accounting ratios and writes out on the board.	Enhance students attention	Students listen to the teacher and copy the definition of accounting ratios.	Definition of Accounting Ratios.
2	**Uses of Ratios:** - To compare two or more sets of accounts - Assist management to formulates future plans. - Enhance ascertainment of business trends - Help in preparing budget - Basic for measurement and interpretation of accounting - Preparation of industrial averages - Measurement of ability of entity.	The teacher explains each of the uses of accounting ratios. Write out the board and directs students to open their textbooks for the said topic	Makes teaching effective	Students listen attentively and copy the uses of ratios into their notes.	Explanation of uses of ratios.

3	**Classification of Accounting Ratios:** (iv) Trading profit and loss Ratios: and Balance sheet Ratios. Identification of the ratios: Average stock, Rate of turnover, cross profit to sales, net profit to sales (GP2). Expanses Ratios – individual expenses to total expenses ratio, expenses to sales; make-up margin (GP3). Capital owned, capital employed, working capital, current ratio, Acid Test ratio (GP4). Return on capital employed, Assets turnover, stock to current Assets, Debtors ratio, Creditors' Ratio (GP5).	The teacher classifies, calculates and presents the ration on the chalkboard. Teacher further interprets the ration for the students and asks them to do same	Teacher-centred and content focused	Students pay great attention. Follow the teacher to calculate and interpret ratios	Calculation accounting ratios.
4	**Formula of some Ratios:** average stock = opening stock plus closing stock divided by 2. Stock turnover ratio = cost of sales divided by average stock Gross profit sales = Gross profit divided by sales times 100. Mark-up = profit divided by cost price time 100 Margin = profit divided by selling price times 100; etc.	The teacher uses the accounting textbook to present the formula of some ratios. He further explains the formula to the class.	Makes students passive listeners	Students pay attention to the explanation. Take down the formula and refer to their textbooks for more details on ratios	Calculation or accounting ratios

5	**Application/Evaluation:** Students levels of understanding is assessed through the teacher's questions only.	The teacher ask the following question to determine the success of lesson delivery: 1. What are accounting ratios? 2. State at least 5 uses of ratios 3. (a) Name two classes or ratios (b) Name 5 trading profit and loss ratios (c) Name 5 balance sheet ratios 4. state the formula for calculating the following ratios: - Average stock - Ratio of turnover - Working capital ratio - Mark-up, and - Margin	Considers achievement of objectives after teaching	Students answer the questions as they understand and follow the lesson	Calculation of accounting ratios

Chalkboard Summary:

Trading profit and loss accounts are final accounts prepared during the end of accounting period base on double entry principle, to determine gross profit and net profit or losses respectively, of the business. The heading is "Trading, profit and loss account for the year ended – 31st Dce. 2012; whichever date is applied. Trading account shows gross profit or loss while profit and loss how's net profit or loss.

The items of the accounts include opening stock, purchase, sales, cost of sales, cost of goods available for sales, gross profit, carriage inwards, carriage outwards, returns inwards, and all forms expensed and income. The account can be prepared with either "T" format or "vertical" format.

Assignment: Read and solves exercises on trading, profit and loss account in Business accounting (1) By J. O. Omuya

EXPOSITORY INSTRUCTIONAL MODEL LESSON PLAN

(CONTROL GROUP)

LESSON NOTE 6 ON FINANCIAL ACCOUNTING

Subject: Financial Accounting

Lesson: Control Accounts

Class: Senior Secondary Two (SS2)

Gender: Mixed

Age: 14-17 years

Date:

Duration: 1 hr. 20 Minutes (Double periods)

Class size: 50 Students

InstructionalObjectives: At the end of the lesson delivery,

SS2 Financial Accounting Students should be able to:

(xxi) Define control account;

(xxii) Name 2 division of control accounts;

(xxiii) State principles and uses control account;

(xxiv) Define and prepare sales ledger control account;

(xxv) Define and prepared purchases ledger control account

Instructional Materials: A chalkboard, Chalts showing sales and purchases ledger control accounts Essential Financial Accounting by Longe and Kaxeem,

Entry behaviour: The SS2 students can prepared general ledger and post transactions into accounts relating to debtors and credits respectively.

Introduction: The teacher introduces and presents the lesson with the help of a textbook, chalkboard and chalk for illustration.

INSTRUCTIONAL PROCEDURE FOR EXPOSITORY MODEL LESSON PLAN

Steps	Contents	Teacher's activities	Expository technique	Student's activities	Skills/knowledge acquisition
1	**Definition of control account:** These are accounts in the general or nominal ledger to which items posted separately to individual accounts in a subsidiary ledger are grouped and posted in totals for debtors or creditors respectively to reflect each totals balance. The control accounts is otherwise called "Total" or a "memorandum" Accounts. Division of control accounts: The two main divisions of control accounts are (i) sales ledger (Debtors) control account (ii) purchase ledger (creditor) control account	Teacher introduces, present and define control accounts directs the class and asks students to define it, as it is stated on the board.	Provides a teacher as the overall	Students listen to the teacher and take down notes after defining control account	Definition of control accounts.
2	**Principle of control accounts:** If opening balance is given, total entries that goes to increase the balance will be added while total entries that goes to reduce the balance will be deducted to have closing balance of debtors and creditors	Teacher states the principles and explains the uses of control accounts. Direct the students to state the principles and copy the uses	Enhance content coverage	Students gaze at the teacher and state the principles. They take down notes on uses of control account	Preparation of control accounts.

	respectively uses/advantages of control accounts (i) Location of errors (ii) Deterrent against fraud (iii)Speedy computation of aggregate balance (iv) It ensures division of labour Ascertain debtors and creditors balance (v) Assist preparation of final account (vii)Decision making is rapt (viii)Possibility of contra entries (ix)They check ledge entries and they relate to accuracy.				
3	**Sales ledger (Debtors) Control Account:** This is the control account to the summary of all debtors which represents all entries posted to sales ledger. Items of sales ledger: Bad debts, Discount allowed, Returns inwards, cash refund, dishonoured cheques, credit sales, Bill receivable, cash from debtors preparation of sales ledger control account.	Teacher presents the chart and demonstrates on the preparation of debtors control, makes entries in the ruled debtors account Direct student to follow suit and use their textbooks for the exercise	Demonstrates knowledge of teaching	Students pay attention to the teacher and watch him demonstrates debtors accounts. Students follow the teacher to make entries and use their textbooks for the exercise given	Preparation of control account.
4	**Purchase ledger (creditors) control account:** This is the control account of all entries posted to purchases or bought ledger. Items of purchase ledger:	The Teacher presents the chart and demonstrates on the creditors control account. Makes entries in the account and direct students to	Makes teaching resourceful	The student listen toe the teacher and watch the demonstration of creditors	Preparation of control accounts.

	Returns outwards, Discount received, cash or cheque payment or creditor, credit purchase, contra. Preparation of p8urchases ledger control.	prepare same using textbooks		control account. They make entries in the account and use textbooks for the exercise as directed.	
5	**Application/Evaluation:** The level of understanding is assessed through the teacher's questions only.	To determined the success of lesson delivery, the teacher asks the following question 1. What is control account? 2. Name 5 division of account and state principle of control accounts 3. State at least 5 uses of control account 4. What is sales ledger control account?	Provides for teaching contents and material only.	Students answer the questions thrown by the teacher, the way the understand and follow the lesson.	Preparation of control account

Chalkboard Summary:

Control Accounts are account summarized into sales purchase ledger or debtors and creditors control accounts respectively. The uses of control accounts include: helps to locate errors, acts as deterrent against fraud, helps in speedy computation of aggregate balance, ensures division of labour, etc. In the principles of control accounts if opening balance is determined, total of entries that goes to increases the balance will be added whiled total entries that goes to reduced the balance will be subtracted to have the closing balance of debtors and creditors respectively.

Assignment: 1. State the principles of control account solve exercise 17.2 page167 Essential Financial Accounting (3rd Ed) by Longe and Kazeem.

APPENDIX F

POPULATION DISTRIBUTION BY SENATORIAL ZONES, LOCAL GOVERNMENT AREAS AND SCHOOLS

S/N		PUBLIC SCHOOLS	ACCOUNTING STUDENTS	TOTAL
		AKWA IBOM SOUTH (EKET)		
1		**Eket LGA**		
	1.	Government Secondary School, Afaha Eket	50	
	2.	Eket Modern High School, Ekpene Obo	22	
	3.	Nduo Eduo High School, Eket	5	
	4.	CDA Secondary School, Ikot Eket	10	
	5.	Community Secondary Commercial School, Ikot Uso Ekong	25	**185**
	6.	Girls' High School, Ikot Ibiok	29	
	7.	Community Secondary School, Odio Eket	7	
	8.	Community Secondary School, Idung Iniang	6	
	9.	St. Francis Secondary School, Ikot Ataku	31	
2		**Esit Eket LGA**		
	1.	National High School, Etebi	10	
	2.	Secondary School, Edor	5	
	3.	Community Secondary School, Akpa Utong	12	**27**

3		**Ibeno LGA**		
	1.	Secondary Grammar School, Ibeno	15	**15**
4		**Ikot Abasi LGA**		
	1.	Comprehensive High School, Edemaya	11	
	2.	Community Secondary Commercial School, Odoro Atan	5	
	3.	Secondary Commercial School, Ibekwe	26	**67**
	4.	Ukpum-Okon Comprehensive Secondary School, Okon	15	
5		**Eastern Obolo LGA**		
	1.	Community Secondary School, Iko Town	25	
	2.	Okoromita Comprehensive Secondary School, Okorette	10	
	3.	Government Comprehensive Secondary School. Amadaka	5	**40**
6		**Mbo LGA**		
	1.	Enwang Comprehensive Secondary School, Enwang	3	
	2.	Community Secondary School, Egbughu	-	**13**
	3.	Community Secondary Commercial School. Udessi	10	

7	**Udung Uko LGA**			
	1.	Community Secondary School, Udung Uko	12	**12**
8	**Mkpa Enin LGA**			
	1.	Ibiaku Clan Community Secondary School, Ikot Ebak	10	
	2.	Community Secondary Commercial School, Esa Ekpo	15	
	3.	Secondary School, Ibotio Ndon	20	
	4.	Community High School, Ikot Essien	6	
	5.	Adiaha-Obong Girls' High School, Ikot Ekop	10	
	6.	Esetang High School, Ekim	2	
	7.	Fr. Fintan Memorial Secondary school, Ikot Ntot	10	
	8.	Community Secondary School, Mkpat Enin	5	**102**
	9.	Secondary School, Ukam	7	
	10	Asong Community Secondary School, Ikot Ekong	29	
	11.	Ikpa Ibom Comprehensive Secondary School, Ikot Ekong	11	
	12.	EDU Secondary School, Ikot Edeghe	-	
	13.	Community Secondary School, Iffe Town	10	
	14.	QIC Secondary Commercial School, Minya	15	
	15.	Community Secondary School, Nya Odiong	3	

9		**Okobo L.G.A**		
	1.	Union Secondary School, Nsie	-	
	2.	St. Vincent Secondary School, Oti-Oron	5	
	3.	National High School, Nung Atai	10	
	4.	Eastern Okobo High School, Obufi	2	**25**
	5.	Community Secondary School, Odobo Okobo	5	
	6.	Comprehensive Secondary School, Okobo	1	
	7.	Methodist Secondary School. Offi	-	
	8.	Community Secondary School, Urue Ita	2	
10		**Onna L.G.A**		
	1.	Oniong East Community Secondary School, Ikwe	10	
	2.	Community Secondary Commercial School, Ikot Ebiere	15	
	3.	QIC Senior Science School, Ndon Eyo	-	
	4.	Afaha Inang Secondary School, Ikot Idem Udo	25	
	5.	Onna Peoples' High School, Abat	29	
	6.	Community Secondary School, Ikot Akpan Ishiet	10	**106**
	7.	Nung Oku Itina Community Secondary School, Ikot Mbong	-	
	8.	Secondary School, Okat	5	
	9.	Onion West Community Secondary School, Ikot Edors	12	

11		**Oron LGA**		
	1.	Mary Hanney Secondary School, Oron	10	
	2.	Methodist Senior Science College, Oron	-	**39**
	3.	Community Secondary School, Eyo-Abasi	29	
12		**Urue Offong/Oruko LGA**		
	1.	Community Secondary School, Mbukpo/Eyokan	10	
	2.	Community Secondary School, Okuko	29	
	3.	Ubodung Community Secondary School, Oruko	-	**63**
	4.	Comprehensive High School, Okossi	24	

AKWA IBOM NORTH-EAST (UYO)

1	**Etinan LGA**			
	1.	Etinan Institute, Etinan	45	
	2.	Etinan Community Comprehensive Secondary School, Etinan	10	
	3.	St. Theresa's Secondary School, Edem Ekpat	-	
	4.	Community Secondary School, Asuna, Etinan	20	
	5.	Community Secondary Commercial School, Ikot Eba	15	**101**
	6.	Community Secondary Grammar School, Ikot Akpabio	-	
	7.	Community Secondary School, Ikot Nte	26	
	8.	Comprehensive Secondary School, Nkana	20	
	9.	Community Secondary Grammar School, Ikot Itina	-	
	10.	Salvation Army High School, Efa	-	
	11.	Community Secondary School, Mbioto II	20	
2	**Ibesikpo LGA**			
	1.	Ibesikpo Secondary Commerical School, Nung Udoe	-	
	2.	Brotherhood Secondary School, Ikot Ide Akpakpan	-	
	3.	Community Secondary Grammar School, Ikot Essien	20	
	4.	Community Secondary School, Ikot Akpa Etok/Ediam	26	
	5.	Asutan Ekpe Comprehensive Secondary School, Okop Ndua Erong	10	**71**
	6.	Iwawa Usung Eket Sec. Comm. School, Ikot Akpa Edung	5	
	7.	Ndikpo Grammar School, Ikot Obio Nko	10	

3		**Ibiono Ibom LGA**		
	1.	Lott Carey Baptist Secondary School, Afaha Obio Eno	5	
	2.	Community Secondary School, Itukho	2	
	3.	Community Secondary School, Idoro	20	
	4.	Community Secondary School, Ono	24	
	5.	Ibiono Community High School, Edem Urua	29	
	6.	Community Secondary School, Ikot Usen	7	**153**
	7.	Presbyterian Senior Science School, Ididep	-	
	8.	Community Secondary School, Ibiaku Ibiono Western	13	
	9.	Secondary School, Ididep	10	
	10.	Community Secondary School, Ikot Uneke	28	
	11.	Community Secondary School, Use Ikot Amama	15	
4		**Itu LGA**		
	1.	Ukpaubong Community Secondary School, Itu	5	**207**
	2.	Community Comprehensive Secondary School, East Itam	20	

	3.	Ntiat/Mbak I Comprehensive Secondary School, Itu Urban	25	
	4.	Itam Secondary School, Itam	28	
	5.	African Church Secondary School, Oku Iboku	20	
	6.	West Itam Secondary School, Ekit Itam II, Itu	50	
	7.	Community Secondary Commercial School, Ikot Andem	30	
	8.	Community Secondary Commercial School, Ibiaku Itam	29	
5		**Nsit Atai LGA**		
	1.	Eastern Nsit Secondary School, Odot	20	
	2.	Essien Itiaba Community Secondary School, Ikot Asua	24	
	3.	Community Secondary Commercial School, Iwok	26	
	4.	Community Secondary School, Ikot Ubok Udom	23	**13 7**
	5.	Community Secondary School, Ikot Akpan Ike	15	
	6.	Community Secondary School, Ibedu/Idikpa	29	
6		**Nsit Ibom LGA**		
	1.	Nsit People's Grammar School, Afaha Offiong	15	
	2.	Comprehensive Secondary School, Edeobom I	45	
	3.	Community Secondary School, Afia Nsit Urua Nko	20	
	4.	Secondary School, M biokporo II	20	**15 7**
	5.	Comprehensive Secondary School, Oboetim	15	
	6.	Apostolic Church Secondary Commercial School, Ikot Oku Nsit	32	
	7.	Government Secondary Commerical School, Ikot Nya	10	

	8.	Unity Model College, Obontong	-
7		**Nsit Ubium LGA**	
	1.	Itreto Community Secondary School, Ikot Okobo	45
	2.	Comprehensive Secondary School, Ndiya	49
	3.	Comprehensive Secondary School, Ikot Okwot	4
	4.	Community Comprehensive Secondary School, Ikot Eyo	40
	5.	Ubium Community Secondary School, Ikot Okwot	20
	6.	Community Secondary School, Ndukpoise	15
	7.	Community Secondary School, Ikot Ubo	19
	8.	Comprehensive Secondary School, Nung Obong	10
	9.	Western Nsit Secondary School, Ukat Aran	35
	10.	Community Comprehensive Secondary School, Ikot Ekpene Udo	20
	11.	Adiaha-obong Girls' Secondary School, Ikot Imo	40 **332**
	12.	Christian Comprehensive Secondary School, Edem Idim Okpot	35
8		**Uruan LGA**	
	1.	Holy Trinity Secondary School, Mbiakong	25
	2.	AME Zion Secondary Commercial School, Ndon Ebom	40
	3.	Adiaha-Obong Secondary Commercial School, Ekpene Ukim	37 **272**
	4.	Methodist Secondary School, Ibiaku Issiet	45
	5.	Community Secondary Commercial School, Ifiayong Usuk	10

	6.	Secondary School, Adadia	30
	7.	Atakpo Community Secondary School, Mbiaya Uruan	-
	8.	Idagha Secondary School, Nung Oku Uruan	38
	9.	Secondary School, Ibaku Uruan	47
9		**Uyo LGA**	
	1.	Cornelia Connelly College, Afaha Oku	45
	2.	Christian Secondary Commercial School, Uyo	32
	3.	Community Comprehensive Secondary School, Four Town	42
	4.	Community Secondary Commercial School, Ikot Oku Ikono	27
	5.	Ikono Ibom Comprehensive Secondary School, Ikot Ayan Ikono	26
	6.	Community Secondary School, Aka Offot	49
	7.	Community Secondary Commercial School, Ikot Okubo Offot	38
	8.	Community Secondary School, Mbak Etoi	37
	9.	Offot Ukwa Secondary Grammar School, Obio Offiot	40
	10.	Secondary School, Etoi	30
	11.	Community Secondary Commercial School, Obio Offiot	10
	12.	Northern Ikono Community School, Ikot Ekpeyak Ikono	15
	13.	Uyo High School, Uyo	44

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AKWA IBOM NORTH-WEST (IKOT EKPENE)

1		**Abak LGA**		
	1.	CJC Comp. Secondary School, Atai Otoro	10	
	2.	Nigerian Christian Sec. School, Ukpom	30	
	3.	Saints Comprehensive Secondary School, Ikot Oku Mfang	20	
	4.	Mclntire Secondary Commercial School, Utu Abak	50	
	5.	St. Mary Senior Science School, Ediene Abak	41	**198**
	6.	Comprehensive Secondary School, Ediene Abak	47	
	7.	Community High School, Afaha Obong	42	
	8.	Secondary Community School, Ikot Etok Udo/Ibong	10	
	9.	Army Day Secondary School, Ibagwa	10	
	10.	Comprehensive Secondary School, Midim	30	
2		**Essien Udim LGA**		
	1.	Community Comprehensive Secondary School, Nto Osung	16	
	2.	Government Secondary School, Nto Nsek	20	
	3.	Okon Secondary Commercial School, Ikot Oko	25	
	4.	Independence High School, Ukana	10	
	5.	Comprehensive Secondary School, Ikpe Annang	26	**152**
	6.	Secondary School, Odoro Ikot	35	
	7.	Kizito Comprehensive Secondary School, Adiasim	5	
	8.	Community Secondary Commercial School, Ukana East	20	
	9.	Community Comprehensive Secondary School, Ukana West	30	

3	**Etim Ekpo LGA**			
	1.	Community Secondary School, Etok Uruk Eshiet	20	
	2.	Community Secondary School, Eka Uruk Eshiet	31	
	3.	Community Secondary School, Uruk Ata II	25	
	4.	Community Secondary Commercial School, Eka Obong	10	
	5.	Community Secondary Commercial School, Ikot Ese	38	
	6.	Comprehensive Secondary School, Ikot Esop	10	**190**
	7.	Northern Annang Secondary Commercial School, utu Etim Ekpo	30	
	8.	Iwukem High School, Iwukem	20	
	9.	Ikono Annang Comprehensive High School, Ikwot Ikono	6	
4	**Ika LGA**			
	1.	Ika Comprehensive High School, Ikot Akpan Anwa	5	
	2.	Ika Secondary Commercial School, Ikot Osukpong-Ika	20	**50**
	3.	St. Augustine Secondary School, Urua Inyang	25	
5	**Ikono LGA**			
	1.	Archibong Memorial Secondary School, Ukpom	5	
	2.	Community Secondary School, Nkwot Ikot Obok Idem	10	
	3.	Comprehensive Secondary School, Ndiya	20	
	4.	Comprehensive Secondary School, Ukpom	5	**163**
	5.	Ediene Community Secondary School, Ikot Ayan	20	
	6.	Ikono People's High School, Nung Ukim	16	

	7.	Lutheran Senior Science School, Ibakachi	-	
	8.	St. Mary's Secondary Commercial School, Ikot Nseyen	30	
	9.	Trinity Academy, Iton Odoro	10	
	10.	Unity High School, Mbiaobong Ukan	20	
	11.	Urban Secondary Commercial School, Ibiaku Nto Okpo	27	
	12.	Women Education Centre, Itak Ikot Akpandem, Ikono	-	
	13.	Community Secondary School, Obio Ediene	-	
6		**Ikot Ekpene LGA**		
	1.	State Secondary Commercial School, Okop Eto	25	**125**
	2.	Goretti Girl's Secondary Commercial School, Ikot Ekpene	30	
	3.	State College, Ikot Ekpene	20	
	4.	Community Secondary School, Ikot Abia Idem/Ikot Enwang	10	
	5.	Amayam Community Secondary School, Mbaiso	-	
	6.	Community Secondary School, Ikot Inyang	30	
	7.	Secondary Commercial School, Ndom Ide	10	
7		**Ini LGA**		
	1.	Secondary School, Ebo Itu Mbonuso	20	**156**
	2.	Ogu Community Secondary Commercial School, Ogu	26	
	3.	Odoro Ikono Secondary School, Mbiabong Ikot Udofia	35	
	4.	Ini Secondary School, Ikpe Ikot Nkon	10	

5.	Ikpe Community Secondary School, Ibam Edet	30	
6.	Community Secondary School, Ukwok	5	
7.	Community Secondary School, Nkari	10	
8.	Iwere Comprehensive Secondary School, Obotme	20	
8	**Obot Akara LGA**		
1.	Community Secondary Commercial School, Nto Edino	30	
2.	Community Comprehensive Secondary School, Ubon Akwa	35	
3.	Methodist Secondary School, Nto Ndang	10	
4.	Abiakpo Community Secondary School, Ikot Ukana	25	**132**
5.	FIDA Secondary Commercial School, Urua Offiong Etor Udo	5	
6.	Comprehensive High School, Ikpe Mbak Eyop	27	
9	**Oruk Amam LGA**		
1.	Community Secondary School, Inen Ekeffe	10	
2.	Community Secondary School, Mbiakot	6	
3.	Community Secondary Commercial School, Ikot Osute	5	
4.	Community Secondary Commercial School, Ikot Afanga	20	
5.	Community High School, Ekparakwa	22	
6.	Community Secondary School, Nung Ita/Ikot Ibritam	15	**153**
7.	Southern Annang Secondary School, Ikot Okoro	29	
8.	Comprehensive Secondary School, Ikot Esenam	10	
9.	QIC Secondary School, Ika Annang	13	
10	Otop Christian High School, Ikot Ukpong Eren	5	

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11.	Madonna Community Girl's Secondary School, Obo Ntangya	7	
12.	QIC Secondary School, Ibesit	-	
13.	Eastern Midim Secondary School, Ikot Owobo	5	
14.	Community Secondary Commercial School, Ikot Inuen	6	
9	**Ukanafun LGA**		
1.	Community Secondary School, Nkek	40	
2.	Community Secondary School, Urua Ekpa Enang	28	
3.	Community Comprehensive High School, Ntak Afaha	10	
4.	Western Annang Secondary Commercial School, Ukanafun	29	**138**
5.	Community High School, Afaha Obo	21	
6.	Afaha High School, Ikot Udombang, Northern Afaha Clan	10	

Source: State Secondary Education Board, Uyo

APPENDIX G

SAMPLE DISTRIBUTION BY SCHOOLS AND GENDER

S/N	SAMPLED SCHOOL	INSTRUCTIONAL MODEL APPLIED	STUDENTS		TOTAL
			M	**F**	
1.	West Itam Secondary School, Ekit Itam	Exp. Group 1: Jigsaw	18	32	50
2.	Mclntire Secondary Commercial School, Utu Abak	Exp. Group 2: Guided Inquiry	21	29	50
3.	Government Secondary School, Afaha Eket	Control Group	20	30	50
			59	**91**	**150**

APPENDIX H

Financial Accounting Students Academic Achievement Test (FASAT)

Section A: Biodata

INSTRUCTION: Tick as appropriate against the information that corresponds with your response

1. Sex: Male ☐ Female ☐

Section B **Time: 1HR.**

Instruction: listed below are item on Financial Accounting. Each question is followed by four options lettered A to D. You are required to choose the correct option for each question. Tick only one answer to each question.

1. The going concern concept assumes that
   - A. every transaction is represented by a debit and credit entry
   - B. the currency must not change
   - C. the firm is a legal entity
   - D. the business will continue to operate indefinitely
2. Provision for depreciation on asset is charged to
   - A. trading account
   - B. profit and loss account
   - C. appropriation account
   - D. manufacturing account
3. The concept which states that assets are not to be recorded at their current market value is
   - A. money measurement
   - B. materiality
   - C. cost

D. entity

4. Creditors' accounts are kept in the

A. sales ledger

B. general ledger

C. private ledger

D. purchases ledger

5. Which of the following is not recorded in the trading account

A. Opening stock

B. Purchases

C. Carriage inwards

D. Carriage outwards

6. The working capital of a business is

A. Total assets less total liabilities

B. current assets less current liabilities

C. fixed assets less current liabilities

D. fixed assets less long-term liabilities

7. In a departmental account, profit or loss is calculated for

A. Each department

B. only one department

C. each product

D. each supplier

8. The concept which deals with the exclusion of items in the accounting records is

A. consistency

B. going concern

C. materiality

D. money measurement

9. The salvage value of an asset is the same as its

   A. cost price

   B. net book value

   C. prime cost

   D. scrap value

Use the following information to answer questions 10 to 12

Opening stock	N4000
Purchases	12000
Carriage inwards	N 300
Returns outwards	N 322
Sales	N20000
Closing stock	N6000

10. Cost of goods sold is

   A. N16,300

   B. N15,978

   C. N10,022

   D. N9,978

11. Goods available for sales is

   A. N16,300

   B. N15,978

   C. N10,022

   D. N9,978

12. Gross profit is

   A. N12,300

   B. N11,978

C. N10,022

D. N9,978

13. In a departmental account, rent is apportioned on basis of

A. purchase

B. floor area occupied

C. number of personnel in each department

D. volume of sales

14. In control accounts, transfers between debtors accounts and creditors accounts is

A. discount

B. set-offs

C. bad debt

D. reconciliation

15. The concept that recognizes revenues and expenses as they are earned or incurred is

A. cost

B. realization

C. accrual

D. matching

16. Which of the following appear both in the trading account and profit and loss account?

A. cost of sales

B. gross profit

C. net profit

D. sales

17. Using diminishing balance method, what is depreciation for year two?

A. N160,000

B. N114,000

C. N60,000

D. N54,000

18. Using diminishing balance method, what is the net book value on 31st December of year two?

A. N551,400

B. N546,000

C. N540,000

D. N486,000

19. Using the fixed instalment method, what is cumulative depreciation at the end of year two?

A. N120,000

B. N216,000

C. N180,000

D. N162,600

20. Using the fixed instalment method, what is the not book value at the beginning of year three?

A. N540,000

B. N492,000

C. N480,000

D. N438,000

21. Which of the following does not lead to depreciation of assets?

A. wear and tear

B. passage of time

C. obsolescence

D. devaluation of Naira

22. The accounting principle which states that for every debit entry, there is a corresponding credit entry is recognized by

A. Realization concept

B. entry concept

C. going concern concept

D. dual aspect concept

23. Which of the following formulae is used to calculate stock turnover rate?

A. Sales ÷ average stock

B. Cost of sales ÷ average stock

C. Cost of sales ÷ closing stock

D. Cost of sales ÷ opening stock

E. dual aspect concept

24. Which of the following is not an accounting convention?

A. Materiality

B. Consistency

C. Business entity

D. Periodicity

25. The cost price of a book is N9000 and the selling price is N12000. What is the mark-up?

A. 66 2/3%

B. 50%

C. 33 1/3%

D. 25%

26. Total Debtors account is also called

A. Total sales account

B. Purchases ledger control account

C. Creditors ledger control account

D. Sales ledger control account

Use the following information to answer questions 27-29.

	Dept A	**Dept B**
	N	**N**
Opening stocks	34,000	17,000
Goods available	850,000	680,000
Closing stocks	170,000	85,000
Gross profits	450,000	350,000

27. What is the purchases for department A?

A. N816,000

B. N714,000

C. N680,000

D. N400,000

28. What is the sales for debarment B

A. N1,130,000

B. N962,000

C. N945,000

D. N765,000

29. The total cost of sales for department A and B is

A. N1,530,000

B. N1,326,000

C. N1,275,000

D. N800,000

30. The appropriate method for apportioning, selling expenses among departments is

A. Floor area

B. Purchases

C. Sales

D. Cost of sales

31. Which of the following is not a liquidity ratio?

A. Stock turnover ratio

B. Stock to net current assets

C. Return on capital employed

D. Working capital ratio

You are required to answer question 32-35 from the following information:

Sales Ledger Control Accounts

	N		N
Balance b/d	?	Discount Allowed	968
Sales	21610	Sales Returns	942
Acceptance dishonoured	542	Cash from customers	?
		Balance c/d	13740
	N34742		**N34742**

32. What is the total debts at the end of the year?

A. N12,590

B. N13,740

C. N20,668

D. N21,610

33. What is the net sales for the year?

A. N21,610

B. N21,068

C. N20,668

D. N20,642

34. What is the total cash received from customers?

A. N19,092

B. N19,074

C. N20,668

D. N21,074

35. What is the total debts at the beginning of the year?

    A. N12,590

    B. N13,740

    C. N20,668

    D. N21,740

36. Which of the following does not belong to the group?

    A. Straight Line

    B. Reducing Balance

    C. Sum-of the year digits

    D. Accumulated depreciation

37. A motor car coasting N10,000 was depreciated at 20% per annum by the diminishing balance method. Two years later, it was sold for N6000. The net result of the sales was

    A. N6400 profit

    B. N6400 loss

    C. N400 loss

    D. N400 profit

38. Financial statements must show a true and fair position of the affairs of a business. This is emphasized by the concept of

    A. materiality

    B. dual aspect

    C. objectivity

    D. realisation

Use the following information to answer questions 39-41

N

Fixed Assets	7000
Stock	1500
Debtors	800
Creditors	2000
Cash at bank	1700
Capital	19000

39. What is the current ratio?

A. 3:1

B. 2.5.1

C. 2:1

D. 1.25:1

40. What is acid test ratio?

A. 3:1

B. 2.5.1

C. 2:1

D. 1.25:1

41. The working capital is

A. N4000

B. N2000

C. N17000

D. N1200

42. Which of the following ratio measures solvency?

A. Gross profit ratio

B. Current ratio

C. Gearing ratio

D. Net profit ratio

43. The purpose of preparing departmental account is to

A. Ascertain the total profit made by a business

B. Ensure that fraud is not committed by departmental managers

C. Minimise the losses incurred by the business

D. Ascertain the performance of each department

44. Which of the accounting concepts makes a distinction between the business and its owner(s)

A. Business entity

B. Going-concern

C. Consistency

D. Materiality

45. The accounting concept which holds that once a business has decided on the accounting treatment of one item, all similar items must be treated in the same way is

A. Consistency

B. Going-concern

C. Conservatism

D. Materiality

46. Sales ledger contains

A. Creditors' accounts

B. Nominal accounts

C. Real accounts

D. Debtors' accounts

47. Which of the following is charged to trading account?

A. Discount allowed

B. Carriage outwards

C. Salaries

D. Carriage inwards

48. Which of the following is a debt entry in debtors' control account?

A. Credit sales

B. Bad debts

C. Returns inwards

D. Discounts allowed

49. Depreciation is

A. Cost of repairs incurred on a fixed asset

B. A charge for the wear and tear of fixed assets

C. The cost incurred on replacing a fixed asset

D. Provision for loss of fixed asset

50. Opening stock and purchases less closing stock is the same thing as

A. Gross profit

B. Cost of sales

C. Net profit

D. Stocks available

APPENDIX I
MODEL ANSWERS FOR FINANCIAL ACCOUNTING STUDENTS ACHIEVEMENT TEST (FASAT)

1	D	26	D
2	B	27	A
3	C	28	C
4	D	29	C
5	D	30	C
6	B	31	C
7	A	32	B
8	C	33	C
9	D	34	B
10	D	35	A
11	B	36	D
12	C	37	C
13	B	38	C
14	C	39	C
15	B	40	B
16	B	41	B
17	D	42	B
18	D	43	D
19	A	44	A
20	A	45	A
21	D	46	D
22	D	47	D
23	B	48	A
24	C	49	B
25	C	50	B

APPENDIX J

KR-21 RELIABILITY COEFFICIENT OF OF PRE-TEST ON FINANCIAL ACCOUNTING ACHIEVEMENT

S/N	GENDER	SCORE	S/N	GENDER	SCORE
1	1	65	16	2	47
2	1	48	17	2	59
3	1	61	18	2	56
4	1	58	19	2	62
5	1	47	20	2	68
6	1	66	21	2	50
7	1	62	22	2	49
8	1	70	23	2	66
9	1	65	24	2	51
10	1	49	25	2	39
11	1	62	26	2	45
12	1	60	27	2	57
13	2	57	28	2	41
14	2	68	29	2	60
15	2	64	30	2	74

CODING SYSTEM

GENDER	CODE
MALE	1
FEMALE	2

Kuder Richardson – 21 (KR-21) Formula used:

$$r = \frac{N}{} \left[\frac{1-\overline{X}\,(N-\overline{X}}{NS^2} \right]$$

N-1

Where: r = Reliability Coefficient

N = Number of test items

$\overline{X}$ = Mean Performance

S^2 = Variance Estimate

APPENDIX K

DATA ANALYSIS OUTPUT

Descriptive Statistics

Group		N	Mean	Std. Deviation
Jigsaw	Pretest mean achievement	50	33.8800	6.18225
	Posttest_mean_achievement	50	46.4400	5.11355
	Valid N (listwise)	50		
Guided inquiry model	Pretest mean achievement	50	37.5700	3.70966
	Posttest_mean_achievement	50	45.0200	2.19564
	Valid N (listwise)	50		

Descriptive Statistics

Group		N	Mean	Std. Deviation
Expository method	Pretest mean achievement	50	35.8800	4.80918
	Posttest_mean_achievement	50	42.0012	3.31328
	Valid N (listwise)	50		

Descriptive Statistics

Group		N	Mean	Std. Deviation
Jigsaw	Pretest mean achievement	50	33.8800	6.180918
	Posttest_mean_achievement	50	46.4400	5.119328
	Valid N (listwise)	50		
Guided inquiry	Pretest mean achievement	50	37.5700	3.70225
	Posttest_mean_achievement	50	45.0200	2.19355
	Valid N (listwise)	50		
Expository method	Pretest mean achievement	50	35.8800	4.80966
	Posttest_mean_achievement	50	42.0000	3.31564
	Valid N (listwise)	50		

Descriptive Statistics

Group	Sex		N	Mean	Std. Deviation
Jigsaw	Male	Pretest mean achievement	29	37.5816	5.83296
		Posttest_mean_achievement	29	44.2453	3.57297
		Valid N (listwise)	29		
	Female	Pretest mean achievement	21	38.3894	6.44864
		Posttest_mean_achievement	21	44.9523	5.88492
		Valid N (listwise)	21		
Guided inquiry model	Male	Pretest mean achievement	17	34.6371	4.24177
		Posttest_mean_achievement	17	41.1053	4.40921
		Valid N (listwise)	17		
	Female	Pretest mean achievement	33	35.9697	4.51643
		Posttest_mean_achievement	33	42.4091	2.35131
		Valid N (listwise)	33		
Expository method	Male	Pretest mean achievement	19	35.6416	2.95296
		Posttest_mean_achievement	19	41.2453	2.40297
		Valid N (listwise)	19		
	Female	Pretest mean achievement	31	34.4194	5.12864
		Posttest_mean_achievement	31	40.0023	2.14492
		Valid N (listwise)	31		

Between-Subjects Factors

		Value Label	N
Group	2.00	Jigsaw	50
	3.00	Guided inquiry model	50

Tests of Between-Subjects Effects

Dependent Variable: Posttest_mean_achievement

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	623.703[a]	2	311.852	19.987	.000
Intercept	2331.630	1	2331.630	149.438	.000
Pretest	306.863	1	306.863	19.667	.000
Group	207.496	1	207.496	13.299	.000
Error	1513.457	97	15.603		
Total	180390.000	100			
Corrected Total	2137.160	99			

a. R Squared = .292 (Adjusted R Squared = .277)

Estimated Marginal Means

Group

Dependent Variable: Posttest_mean_achievement

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Jigsaw	43.684[a]	.563	42.566	44.801
Guided inquiry model	40.756[a]	.563	39.639	41.874

a. Covariates appearing in the model are evaluated at the following values: Pretest mean achievement = 34.8700.

Between-Subjects Factors

		Value Label	N
Group	1.00	Expository method	50
	2.00	Jigsaw	50

Tests of Between-Subjects Effects

Dependent Variable: Posttest_mean_achievement

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	98.695[a]	2	49.347	6.598	.002
Intercept	1679.297	1	1679.297	224.534	.000
Pretest	90.855	1	90.855	12.148	.001
Group	217.14	1	217.14	12.19	.000
Error	725.465	97	7.479		
Total	196896.000	100			
Corrected Total	824.160	99			

a. R Squared = .120 (Adjusted R Squared = .102)

Estimated Marginal Means

Group

Dependent Variable: Posttest_mean_achievement

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Expository method	44.328[a]	.392	43.549	45.107
Jigsaw	44.232[a]	.392	43.453	45.011

a. Covariates appearing in the model are evaluated at the following values: Pretest mean achievement = 36.8900.

Between-Subjects Factors

	Value Label	N
Group 1.00	Expository method	50
Group 2.00	Jigsaw	50
Group 3.00	Guided inquiry model	50

Tests of Between-Subjects Effects

Dependent Variable: Posttest_mean_achievement

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	822.694[a]	3	274.231	22.553	.000
Intercept	2923.185	1	2923.185	240.401	.000
Pretest	323.334	1	323.334	26.591	.000
Group	268.346	2	134.173	11.034	.000
Error	1775.306	146	12.160		
Total	279948.000	150			
Corrected Total	2598.000	149			

a. R Squared = .317 (Adjusted R Squared = .303)

Estimated Marginal Means

Group

Dependent Variable: Posttest_mean_achievement

Group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Expository method	43.956[a]	.507	42.954	44.958
Jigsaw	44.008[a]	.493	43.033	44.983
Guided inquiry model	41.036[a]	.507	40.035	42.037

a. Covariates appearing in the model are evaluated at the following values: Pretest mean achievement = 35.8867.

Between-Subjects Factors

		Value Label	N
Sex	1.00	Male	65
	2.00	Female	85

Tests of Between-Subjects Effects

Dependent Variable: Posttest_mean_achievement

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	565.111[a]	2	282.556	20.432	.000
Intercept	2705.059	1	2705.059	195.605	.000
Pretest	561.202	1	561.202	40.581	.000
Sex	110.763	1	110.763	17.78	.000
Error	2032.889	147	13.829		
Total	279948.000	150			
Corrected Total	2598.000	149			

a. R Squared = .218 (Adjusted R Squared = .207)

Estimated Marginal Means

Sex

Dependent Variable: Posttest_mean_achievement

Sex	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
Male	42.693[a]	.462	41.781	43.606
Female	43.235[a]	.404	42.437	44.032

a. Covariates appearing in the model are evaluated at the following values:

Pretest mean achievement = 35.8867.