EFFECT OF DISCOVERY AND DEMONSTRATION METHODS OF TEACHING FINANCIAL ACCOUNTING ON PERFORMANCE OF STUDENTS IN SENIOR SECONDARY SCHOOL IN KADUNA STATE, NIGERIA

BY

Samuel Estein UKOJE
MED/EDUC/5190/2009-10

BUSINESS EDUCATION SECTION
DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION FACULTY OF EDUCATION AHMADU BELLO UNIVERSITY ZARIA

FEBRUARY, 2016

EFFECT OF DISCOVERY AND DEMONSTRATION METHODS OF TEACHING FINANCIAL ACCOUNTING ON PERFORMANCE OF STUDENTS IN SENIOR SECONDARY SCHOOL IN KADUNA STATE, NIGERIA

BY

Samuel Estein UKOJE
B.Ed Business Education (ABU, 1993)
MED/EDUC/5190/2009-10

BUSINESS EDUCATION SECTION
DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION FACULTY OF EDUCATION AHMADU BELLO UNIVERSITY ZARIA

FEBRUARY, 2016

DECLARATION

I declare that this dissertation was written by me in the Department of Vocational and Technical Education under the strict supervision of Professor A. A. Udoh and Dr. S. S. Amoor. All consulted works have been duly acknowledged in the text and a list of references provided. To the best of my knowledge no part of this dissertation has been previously presented for another degree in any university.

_____ _____

Samuel Estein UKOJE **Date**
(MED/EDUC/5190/2009-10)

CERTIFICATION

This dissertation titled 'EFFECT OF DISCOVERY AND DEMONSTRATION METHODS OF TEACHING FINANCIAL ACCOUNTING ON PERFORMANCE OF STUDENTS IN SENIOR SECONDARY SCHOOL IN KADUNA STATE' by Samuel Estein UKOJE, meets the regulation governing the award of Master of Education in Business Education of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

_____ _____

Professor A. A Udoh — Date
Chairman, Supervisory Committee

_____ _____

Dr. S. S. Amoor — Date
Member Supervisory Committee

_____ _____

Professor A. A Udoh — Date
(Head of Department, Vocational and Technical Education)

_____ _____

Professor, K. Bala — Date
Dean, School of Post Graduate Studies

DEDICATION

This dissertation is dedicated to my parents Mr. and Mrs. Samson Ogwo Onwene and my beloved wife Aladi O. Samuel and our children.

ACKNOWLEDGEMENTS

The researcher's sincere appreciation goes to his untiring, understanding and humane supervisors Prof. A. A. Udoh, the Head of Department of Vocational and Technical Education and Dr. S. S. Amoor, the current Head of Section, Business Education, for their valuable inputs and moral support. The Researcher is equally grateful to the following academic staff of the department of Vocational and Technical Education;Professor M. M. Aliyu (Retired), Dr. E. E. Adamu, Dr. S. Ibrahim, Prof. A. Z. Mohammed, Dr. B. I. Okeh, Prof. S. L. Ajayi, Prof. P. E Onuigbo, Dr. I. M. Haruna, Dr. T. J. Adeshina, Dr. R. T. Umar, Dr. A. Ibrahim and all other members of the Post Graduate Committee in the department.

All the non academic staff of the department also deserve commendation. They include: Joseph M, Buhari A, Stephen B, Abubakar M, Aminu R and Aminu M.

The researcher equally appreciates all members of management of Federal College of Education (F.C.E) Zaria, particularly the Provost Dr. M. I. Maccido for granting the researcher permission to undertake this programme. The following colleagues and friends also deserve full appreciation for their contributions and moral support. They are: Head of Department H. N. Usman, Dr. B. I. Balogun, Dr. I Odiba, Dr. M. Atadoga, H. S. Bamalli, K. I. Adebisi, Danladi Bako, John Audu, K. Yusuf, A. Sani, C. N. Ngaloru, N. Abdullahi, and a host of others for their immense moral support.

The researchers heartily appreciates all members of his immediate and extended families particularly his wife Aladi O. Samuel and his children; Iye Ufedo Samuel, Ukpahi Samuel, Anejodo Samuel, Joseph Samuel and Grace Samuel.

The researcher wishes to acknowledge the Grace of the Almighty God which make this study possible.

ABSTRACT

The impetus for this study was to establish the relative importance of two methods of teaching in the Senior Secondary Schools in Kaduna State. This study therefore compared the effect of Discovery and Demonstration Methods of teaching Financial Accounting against the conventional method (lecture) in Government Senior Secondary Schools in Kaduna State, Nigeria. A quisi-experimental design with pre-test and post-test was adopted for the study. Four research questions were raised to guide the study while four hypotheses were also formulated to be tested at 0.05 level of significance. A total of 45 SS II students were used for the experiment. The samples were selected using purposive sampling method. The sampled students were taught by the researcher using the two methods. The data collected were analyzed using mean, standard deviation, t-test and Analysis of Variance (ANOVA) to answer the research questions and to test the null hypothesis at 0.05 percent level of significance. The findings on research questions one and two revealed that demonstration and discovery methods have positive effect on teaching Financial Accounting in SS II students; research question three showed that students performed better when demonstration method is used in teaching Financial Accounting than when discovery method is used; research question four showed that students performed better under demonstration method than in discovery and lecture methods. The test of all the four null hypotheses also showed that there were significant effects of demonstration and discovery methods of teaching Financial Accounting at the SS II level. Therefore, the null hypotheses one and two, that there is no significant effects of demonstration and discovery methods of teaching Financial Accounting were rejected. Null hypothesis three results showed that there was a significant difference between demonstration and discovery methods of teaching Financial Accounting. Therefore the null hypothesis of no significant difference between demonstration and discovery methods of teaching Financial Accounting was rejected. Null hypothesis four results showed that there was a significant difference among the three methods of teaching Financial Accounting at SS II level.Therefore,the null hypothesis of no significant difference among the effect of demonstration, discovery and lecture methods of teaching Financial Accounting in SS II level was rejected. Based on the findings, it was concluded that demonstration method of teaching Financial Accounting had more effect than discovery and lecture teaching methods. It was recommended that teachers teaching Financial Accounting at the Senior Secondary School in Kaduna state should adopt demonstration method in teaching the subject.

TABLE OF CONTENTS

Title Page - - - - - - - - - - 0

Declaration - - - - - - - - - - i

Certification - - - - - - - - - - ii

Dedication - - - - - - - - - - iii

Acknowledgements - - - - - - - - - iv

Abstract - - - - - - - - - - vi

Table of Contents - - - - - - - - - vii

List of Tables - - - - - - - - - - viii

List of Appendices - - - - - - - - - ix

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study - - - - - - - - 1

1.2 Statement of the Problem - - - - - - - - 4

1.3 Purpose of the Study - - - - - - - - - 6

1.4 Research Questions - - - - - - - - - 6

1.5 Research Hypotheses - - - - - - - - - 7

1.6 Significance of the Study - - - - - - - - 7

1.7 Basic Assumptions for the Study - - - - - - - 8

1.8 Delimitation of the Study - - - - - - - - 9

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1 Theoretical Framework - - - - - - - - 10

2.2 Development of Financial Accounting: A Historical Perspective - - 16

2.3 The Importance of Accounting Education in the Economy - - - 24

2.4 Teaching and Learning Financial Accounting in Secondary School - - 27

2.5 Select of Teaching Methods - - - - - - - - 30

2.6 Empirical Studies - - - - - - - - - 40

2.7 Summary of Related Literature Reviewed - - - - - - 45

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Research Design - - - - - - - - 47

3.2 Population for the Study - - - - - - - 48

3.3 Sample Size and Sampling Procedure - - - - - 49

3.4 Instrument for Data Collection - - - - - - 49

3.4.1 Validity of the Instrument - - - - - - - - 50

3.4.2 Pilot Study - - - - - - - - - 50

3.4.3 Reliability of the Instrument - - - - - - - 51

3.4.4 Procedure for Data Collection - - - - - - 51

3.6 Procedure for Data Analysis - - - - - - - 52

CHAPTER FOUR: PRESENTATION AND ANALYSIS OF DATA

4.1 Answer to Research Questions - - - - - - 55

4.1.1 Research Questions One - - - - - - - - 55
4.1.2 Research Question Two - - - - - - - - 56
4.1.3 Research Question Three - - - - - - - - 57
4.1.4 Research Question Four - - - - - - - - 58

4.2 Null Hypotheses Testing - - - - - - - 59

4.2.1 Null Hypothesis One - - - - - - - - 59
4.2.2 Null Hypothesis Two - - - - - - - - 60
4.2.3 Null Hypothesis Three - - - - - - - 61
4.2.4 Null Hypothesis Four - - - - - - - - 62
4.3 Summary of Major Findings - - - - - - - 63

4.4 Discussion of Findings - - - - - - - 63

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary - - - - - - - - - 67

5.2 Conclusion - - - - - - - - - 68

5.3 Recommendations - - - - - - - - 68

5.4 Suggested Areas for further Studies - - - - - - 69

References - - - - - - - - - 70

Appendices - - - - - - - - - 75

LIST OF TABLES

1.1	O'Level WASCE and NECO RESULT for 2006 – 2011 - - -	4
3.2.1	Population for the Study - - - - - - -	48
3.2.2	Sample Size - - - - - - - - -	49
3.3	Result of Pilot Study - - - - - - -	51
4.1.1	Mean Score of Demonstration Method of Teaching Financial Accounting -	55
4.1.2	Mean Score of Discovery Method of Teaching Financial Accounting -	56
4.1.3	Difference between the performance of students taught using Demonstration and Discovery methods - - - - - - -	57
4.1.4	Differences among the three instructional methods - - - -	58
4.2.1	Paired Sample t-test between Demonstration Method and Lecture Method -	59
4.2.2	Paired Sample t-test between Discovery Method (Experimental) and Lecture Method (Control) - - - - - - - -	60
4.2.3	Paired Sample t-test between Discovery Method and Demonstration Method	61
4.2.4	Analysis of Variance (ANOVA) statistic to test the performance of students taught Financial Accounting using Demonstration, Discovery and Lecture teaching Methods - - - - - - - -	62

LIST OF APPENDICES

I.	Letter of Identification - - - - - - -	75
II.	Lesson Plan on Demonstration Method - - - - -	76
III.	Lesson Plan on Discovery Method - - - - -	81
IV.	Pre-Test Financial Accounting Intelligence Test - - - -	87
V.	Answers to Pre-Test - - - - - - -	91
VI.	Post-Test: Financial Accounting Achievement Test - - -	93
VII.	Model Answers to Post-Test - - - - - -	96
VIII.	Part B: Essay Questions: Section A - - - - -	97
IX.	Model Answers to Part B: Section A - - - - -	99
X.	Barewa College, Zaria: Test Scores - - - - -	104

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Teaching is a major way of imparting knowledge and skills to the learners, particularly students, therefore, teachers are often required to teach value judgement of the needs of the students, using suitable methods out of the many methods that are available. Sometimes students fail because the teachers fail to teach appropriately. Teaching and education are two sides of the same coin.Successor failure of the education system rests squarely on the shoulders of teachers who should wake to more dedicated performance of their duties through continued improvement of their competences. Indeed students' failure indicate teaching and teacher failure, while the standard and quality of education reflects the standard and quality of the teaching force.

Financial Accounting is a skill subject. Skill subjects require students' exposure to enough practical work by the teacher to enable them have basic understanding of the subject matter. According to Umunnah (1992) "accounting education is viewed as an area of study needed to equip the youths with knowledge, skills and attitudes necessary for efficient financial calculation required for occupational competence and economic self-reliance". He further stated that for every business establishment, be it government offices, parastatals, private companies, banks and other financial institutions, the importance of accounting work cannot be over emphasized. Hence the necessity of using appropriate methods, particularly, those that are learner-centered which include discovery and demonstration methods to encourage practical activities by students. This is because students' practical experiences in the teaching/learning process should match the role accounting plays in the industry.

The concept of Financial Accounting has been defined by the American Institute of Certified and Public Accountants, thus"Accounting is the art of recording, classifying in a significant manner and in terms of money, transactions and events which are, in part at least, of financial character and interpreting the results thereof".

From the definitions this study accounting is a discipline that is regulated by professional ethics that all those who want to study it must strictly adhere to. Therefore, these attributes and laid down principles should be taught to students at the Secondary School level. Surfice it to say that it is only effective and functional teaching that can achieve this objective.

Teaching involves students working interactively with a view to inducing, inspiring and facilitating learning for the purpose of accomplishing a set instructional objectives. Meziobi (1992) in Okam (1998) observed that the idea behind teaching methods includes the utilization of appropriately selected curriculum resources, content and learning experiences, motivational strategies, an application of learning theories and a demonstration of knowledge of developmental psychology in the teaching – learning process.

The cluster of activities should be tailored to the needs of students via effective methods to produce intended outcome. Accounting teachersare usually mindful of the fact that creating conducive learning atmosphere by employing some motivating elements such as riddles and jokes, short stories among others, to make students happy and develop interest in the subject. Those factors that influence the choice of teaching methods include objective of the lesson; age of the learner; nature of learners that is level of intelligence and rate of assimilation. Other arepresent knowledge level of the learner; nature of the subject matter for teaching;availability of educational resource materials; the duration or length of the teaching assignment, all make

for effective teaching strategies capable of selecting method that are likely to be more beneficial to the students.

The Accounting teacher, who knows his subject well, is either teacher centred or learner centered methods considering the factors given above.Such method include the following:

i) Guided discovery - support from teacher
ii) Unguided discovery - no teacher support
iii) Lecture method
iv) Project method
v) Discussion method
vi) Demonstration method

The emphasis in this study is on guided discovery - support from teacher method.

Bruner (1966) stated that DiscoveryLearning is characterized by three stages. These are labeled as inactive, iconic and symbolic where he deals with mental images. At the inactive stage, the child manipulates things directly. He then progresses to the second stage (iconic), where he deals with mental images and lastly to the symbolic stage which is characterized by manipulation of symbols". Discovery method is a scientific way of knowing and it starts with the process of inquiry in which the students identify puzzling situations in his environment. The identification of such a situation leads to exploration of ways of solving the problem. Other characteristics of discovery method are: - there is learner participation and learner – learner interaction, the learner's decisions are recognized concerning activities of the course, they are rewarded by being motivated, the students have better retention of knowledge since they discover most of the facts on their own and require a lot of teaching materials to illustrate concepts and ideas.

On the other hand,demonstration method of teaching involves carrying out class activities to illustrate concept and ideas. (Lagoke, 2008). Demonstration can be carried out by the teacher alone, the teacher and the learner, the learner who is knowledgeable in the activity and by an invited guest. The guiding principle is that the purpose of the demonstration must be clear to all participants and the process must involve the learners as much as possible. It is against the background so far discussed that prompted the study on effective teaching methods in financial accounting.

1.2 Statement of the Problem

The level of failure in Financial Accounting between 2006 – 2011 expressed in Table I below for both WASSCE and NECO was massive and grievous. The problem of mass failure in the O'level examination generally then becomes an area for concern and concerted efforts must be made to address it. According to Rufai, (2001), "this is unacceptable and an embarrassment to the whole country".

Table I O'Level WASCE AND NECORESULT FOR 2006 - 2011

YEAR	WASSCE		NECO	
	% PASS	% FAIL	% PASS	% FAIL
2006	22	78	27	73
2007	20.7	79.3	30.7	69.3
2008	26.6	73.4	57.2	42.8
2009	26.5	73.5	10.6	89.4
2010	23.3	76.7	9.3	90.7
2011	31	69	8	92

SOURCE: ***Daily Trust Wed Dec 14 : 2011***

Apart from the losses parents suffer by paying WASSEC and NECO registration fees several times for their wards to re-sit the same O'level exams, the children themselves go

through a serious of psychological and physical pains resulting from this failure. In addition to all these challenges some of the candidates who repeatedly failed take to crime and other forms of social vices thereby creating problems for the parents and the society (Rufai, 2011). So there is the need to identify and sensitize stakeholders on what is responsible for mass failure. SSCE results, classwork and test performance of students studying accounts at the secondary school level is poor and this has been a major problem to teachers and parents. The principal cause of this poor performance is yet to be effectively identified and tackled (Nwodo, 2006).

The failure rate shown according to the publication, in both exams cut across all subjects and that 60% failure was recorded in skill subjects. This obviously includes financial accounting and other vocational courses such as typewriting, shorthand and agricultural science.

The implication of this mass failure every year is that about 70% of secondary school graduates would not be able to go to tertiary institution which means that there would be inadequate man power for the economy. Furthermore this could have negative effect on the achievement of the nation policy objectives which is dependent on the quality and number of qualified persons. These identified problems require investigation to provide solution for improvement and solution using empirical evidence.

It is this problem that necessited the attention of the researcher to assess the extent to which other teaching methods especially discovery and demonstration teaching methods contribute to either success or failure rate in Financial Accounting apart from the traditional (Conventional or Lecture) Method.

1.3 Purpose of the Study

The main purpose of this study was to determine the effect of guided discovery teaching method on achievement in financial accounting among Senior Secondary School Studies in Kaduna State. Specifically the study sought to:

1) Determine the level of effect of demonstration teaching method on students performance in financial accounts at the senior secondary school level in Kaduna State.

2) Determine the level of effect of discovery teaching method on students performance in financial accounting at the senior secondary school level in Kaduna State.

3) Establish the level of effectiveness between the effect of discovery and demonstration methods of teaching financial accounting at the Senior Secondary School in Kaduna State?

4) Establish the difference among the methods and the academic performance of students in financial accounting at the SSS level in Kaduna State.

1.4 Research Questions

The following research questions were used to guide the study: -

1. What is the level of effect of Demonstration Method of teaching Financial Accounting Accounts on the students' academic performance in the subject at the Senior Secondary School level in Kaduna State?
2. What is the level of effect of discovery method of teaching Financial Accounts on the students' academic performance in the subject at the Senior Secondary School in Kaduna State?

3. What is the difference between the academic performance of students taught Financial Accounting using discovery method and those taught using Demonstration Teaching Method at SSS level in Kaduna State?
4. What is the differences among the method and academic performance of students taught Financial Accounting at SSS level in Kaduna State?

1.5 Null Hypotheses

The following null hypotheses were formulated to be tested at 0.05 level of significance.

HO_1 Demonstration method of teaching Financial Accounts has no significant effect on students performance in the subjects at Senior Secondary School level in Kaduna State.

HO_2 Discovery method of teaching Financial Accounts has no significant effect on students performance in the subject at Senior Secondary School level in Kaduna State.

HO_3 there is no significant difference between the effect of Discovery and Demonstration Methods of teaching Financial Accounting at the Senior Secondary School level in Kaduna State.

HO_4 There is no significant difference among the methods and the academic performance of students in Financial Accounting at the Senior Secondary School level in Kaduna State.

1.6 Significance of the Study

It is the researchers believe that the findings of the study when published in journals, newspapers or given at national conferences and seminars, will be of benefit to individuals, parents and other stakeholders in education whose children are studying Financial Accounting at secondary school particularly those of them who wish their wards to choose Accounting as their profession.

The findings of this study will also provide Accounting teachers useful information on suitable methods of teaching Financial Accounting at the Senior Secondary School level in schools that offer it. It will equally help them to improve on creating interest in their students.

Students at the senior secondary school level will benefit by finding it easy to understand financial accounting and perform-well in the subject. No doubt this will aid them when they go for further studies in accounting.

Small and medium scale businesses will also benefit from the result of this study because they will definitely be looking for secondary school leavers who perform well in financial accounting to help them manage some of their accounting records.

1.7 Basic Assumptions

The study assumes that: -

1. Discovery Method of teaching Financial Accounting can aid students to perform well if used appropriately by accounting teachers at the secondary school level.
2. Demonstration Method of teaching Financial Accounting can aid students to perform better than using other methods of teaching by accounting teachers.
3. Practical based methods such as Demonstration and Discovery Methods are the suitable methods Accounting teachers ought to use to improve students' academic performance.
4. The school where Demonstration and Discovery Methods of teachingshall be used for the study will be adequate to generalize their suitability to all secondary schools that offer Financial Accounting inKaduna State.

1.8 Delimitation of the Study

This study was mainly delimited to the use of guided discovery and demonstration methods of teaching Financial Accounting in 22 government secondary schools offering Financial Accounting in Kaduna State, with a total of 1, 016 students.(See appendix II). 50 SSS II students of Barewa College were the actual students involved in the study. The choice of SSS II students was informed by the fact that they were not preparing for any terminal or external examination and they have become familiar with many basic accounting terms like Debit (Dr), Credit (CR), Journal, Ledger and Trail Balance. The topic taught was Final Accounts of a Sole Trader.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

In this chapter the researcher reviewed relevant literature to the topic under the following areas.

2.1 Theoretical Framework

2.2 Development of financial accounting: a historical perspective

2.3 Importance of accounting education in the economy.

2.4 Teaching and learning financial accounting in secondary schools

2.5 Teaching Methods

2.6 Guided Discovery an Aid to Teaching and Learning

2.7 Demonstration Method an Aid to Teaching and Learning

2.8 Empirical Studies

2.9 Summary of Literature Review

2.1 Theoretical Framework

This study is based on learning theories with emphasis on Jean Piaget, Cognitive Development of Children LearningTheory.Piaget's learning theory is on the study of how children learn at different age range. The reason being that understanding the concept of learning, types of learning and factors affecting learning, and their classroom implication will

go a long way in giving a clearer meaning of the issues surrounding selection of appropriate methods of teaching financial accounting.

Jean Piaget, a Swiss Psychologist, made some basic assumptions in his theory. Two of the essential concepts in his assumptions are 'function' and 'structure', (Mukherjee, 2002). He postulated that functions remain invariant for the individual children, and these are employed in the cognitive behavioural manifestations of theirs. Structures change systematically during the growth period of the child, as new structures are formed almost everyday of the child's life which destroy or modify the old existing structures, and this process of building and rebuilding goes on from birth to maturity of the individual child.

On these bases, a child's intelligence may be viewed as the outcome of his growth process. According to Mukherjee (2002) "for any function to be operated, it has to be organized, i.e. planned. Two basic aspects of the function invariant are assimilations and accommodation". Assimilation implies anything that is incorporated by the child from his environment. In cognitive terms, it includes the input of information, its analysis and synthesis arising out of mediation process of the organism. An information or experience which is assimilated needs to be matched to see if the synthesized bits of experience have been properly assimilated, and this the organism does by a matching out process in his cognition, which Piaget calls accommodation. When assimilation and accommodation of a particular bit of experience has been properly integrated, adaptation of the organism results. If the result of adaptation is proved to be satisfactory for the particular information or experience, the organism moves to a stage of equilibrium. An experience for which the organism has reached equilibrium is stored by the child as a memory trace or schema. A structure consists of many such schema or schemata. From the foregoing, it can be seen that Piaget's learning theory has

implications for learning Financial Accounting, the types of learning which students adopt, factors affecting such learning and the role financial accounting teachers play to make learning effective. All these are briefly discussed in 2.1.1 to 2.1.4.

2.1.1 Implications of Piaget Theory for Learning Financial Accounting

When Financial Accounting concepts are introduced to the children by the teacher for instance, Bookkeeping, Journal, Ledger, Debit, Credit e.t.c. regardless of their previous experiences, children are able to classify these concepts, engage in assimilation of the various information which the teacher provides. This assimilation of the concepts and information leads to synthesizing and adoption of the various experiences of the children which Piaget termed 'function', which results in accommodation. In other words the child's further experiences and interaction with the teacher and various learning aids will ultimately results in understanding and acceptance of these concepts as real and meaningful.

2.1.2 The Concept of Learning

Another study framework that will guide this research could be derived from the concept of learning. A teacher should be aware that students have different learning styles and some learners need more support from teachers, parents and colleagues than others. Awareness of our students learning styles will help us to select and use appropriate teaching methods for effective learning processes.

According to Abubakar and Dantani (2005) "learning is the systematic method of perceiving, processing, remembering and responding to information by an individual". Kundu and Tutoo (1993), defined learning as the modification and co-ordination of the responses of the organism. Adeyanju (1996) agrees that learning is a change in response or behavior (such as innovation, elimination or modification of responses) which involve a degree of permanence. It

involves the need for the learner to demonstrate a change in performance ability and ability to do what could not be done before. He further explained that it is any change in behavior which is a result of experience and which courses people to face later situations differently which occurs as a result of reinforced practice. According to Mukherjee (2002) "learning includes the entire socialization process, the acquisition of behavior patterns, and even styles or particular means of tackling issues or problems of everyday life. Other psychologists like Schacter, Gilbert and Wegner (2009) described learning as follows; learning is acquiring new, or modifying and reinforcing, exiting knowledge, behaviours, skills, values, or preferences and may involve synthesizing different types of information. The ability to learn is possessed by humans, animals and some machines. Progress over time tends to follow learning curves. Learning is not compulsory; it is contextual. It does not happen all at once, but builds upon and is shaped by what we already know. To that end, learning may be viewed as a process, rather than a collection of factual and procedural knowledge. Learning produces changes in the organism and the changes produced are relatively permanent".

It can be seen that these definitions show that learning is an active process not a passive observation of knowledge. These authors have also pointed out that it is the process of acquisition of knowledge as a result of experience with a view of modifying the behavior. In addition to this, most psychologists in their definition agrees that: -

i. Learning is a process by which someone profits from past experiences.

ii. Learning is more-or-less permanent change in behavior traceable to conditions in the environment, experience or practice.

iii. The above two points lends credence to the fact that learning is a continuous thing in the life of an organization.

2.1.3 Types of Learning

There are many theories of types of learning. The works of three Psychologists namely Benjamin Bloom, Mark Tennant and Howard Gardner – shall be briefly reviewed Bloom's Taxonomy or classification scheme for types of learning is deemed to be particularly relevant to young learners at the secondary school level. Bloom's classification has three overlapping domains: cognitive, psychomotor and affective domains (Lee, 1999).

In explaining the domains Lee (1999) said skills in the cognitive domain most relevant to training include:

i. Knowledge (remembering information)

ii. Comprehension (explaining the meaning of information)

iii. Application (using abstractions in concrete situations)

iv. Analysis, that is, putting parts together to form a new and integrated whole).

v. According to Bloom (1973) in Lee (1999) the psychomotor, that is the child's ability to manipulate objects manually while the affective domain relates to the learners attitude toward what is learnt.

Another psychologist Mark Tennant (1995) categorized types of learning in a different way. The acronym A.S.K, developed by Tennant represents the three types of learning that occur in training.

A Represent "attitude", also known as affective learning.

S Represent "Skills", often called psychomotor or manual learning i.e. learning to operate adaptive technology is an example of the development of skills.

K Represent "Knowledge". This s cognitive learning the formal term used for mental skills such as recall of information.

The third theory being considered here is by Howard Gardner (1999). Howard's theory is on multiple intelligences based upon research in the biological analysis and psychology. He breaks and psychology. He breaks down knowledge into seven types:

i. **Logical Mathematical Intelligence:** The ability to detect patterns, think logically, reason and analyze, and compute mathematical questions.

ii. **Linguistic Intelligence:** The mastery of oral and written language in self-expression and memory (e.g. journalists, politicians, lawyers).

iii. **Spatial Intelligence:** The ability to recognize and manipulate patterns (large or small) in Spatial relationships e.g. architects, pilots, sculptors.

iv. **Musical Intelligence:** The ability to recognize and compose music quality for production and performance, e.g. composers, musicians.

v. **Kinesthetic Intelligence:** The ability to use the body, or parts of the body to create products or solve problems, e.g. athletes, dancers, surgeons.

vi. **Interpersonal Intelligence:** The ability to recognize another's intention and feelings, e.g. managers, sales people, social workers.

vii. **Intrapersonal intelligence:** The ability to understand oneself and use the information to self manage, e.g. entrepreneurs, psychologist.

Gardner's theory purports that people use these types of intelligence according to the types of learning that is necessary, their personal strengths and abilities, and the environment in which the learning takes place. This suggest that different teaching methods are best applied to certain types of learning, using a wide variety of activities when teaching a particular subject so as to maximize learning for all learners.

2.1:4 Factors Affecting Learning

For the teacher to effectively carry students along while teaching he should have in-depth knowledge of factors affecting learning. The major factors affecting learning include:

i) **Motivation**: Motivation is the force that causes a person to move toward a goal. (Adeyanju, 1996). The teacher should know when motivation is present in a lesson.

ii) **IndividualDifference**:This refers to traits, both mental and physical which distinguish one person from another because human beings are both product of heredity and environment. Therefore the teacher has to be mindful of the mental ability, previous knowledge, specific aptitudes, ability to use senses of sight and hearing, attitudes and interest of his students.

iii) **Participation**:This involves the ability of the teacher to make students respond mentally and physically to the lesson through questions and other classroom activities. Answers to questions could be verbal or in writing. Absence of participation makes a lesson dull and uninteresting.

iv) **Repetition**:It enhances learning because it serves as reinforcer and elicits participation and motivation especially during practical or discussion sessions.

2.2 Development of Financial Accounting: A Historical Perspective

It is quite important and interesting to note that financial accounting is the nucleus of the body of knowledge called accounting. Consequently, to identify what gave impetus to the

development of financial accounting is as good as to trace the evolution of accounting. Also it is of paramount importance to mention here that, although there is no consensus as to the genesis of accounting, there is no controversy in respect of its long-standing history. In other words, accounting is not of recent origin. It has been with man for several generations. Available literature can adequately attest to this position. For instance, a portion of a letter from one Egyptian priest to another, Second Century B.C in Fetyko (1980) strongly suggested that Accounting is not a modern invention of man.The letter reads:

> *You should know that an inspector of temple finances has arrived in these parts and intends to review your accounts also. Do not be unduly disturbed, however, for I will get you off. As quickly as you can, write up your books and bring them here to me, for he is a very strict fellow. If you cannot bring the books yourself, at any rate send them to me and I will see you through, for I have become friendly with him……..*

There is the belief that Accounting came into existence before the development of writing. This belief is confirmed by Matulich and Heitager (1985) when they observed that "in earliest recorded history, it was the need for accounting information that actually brought about the development of writing". Similarly, Fetyko (1980) highlighted that "since the beginning of civilization humanity has tried to keep account of economic activity". In order to substantiate the ancient nature of accounting (as it even preceded the development of writing) he went further to quote Eric Hoffer (1982) in Fetyko (1980) – who said,

We are often told that the invention of writing in the middle East about 3000 B C marked an epoch in man's career because it revolutionalized the transmission of knowledge and ideas. Actually, for many centuries after its invention writing was used solely to keep track

of the intake and outgo of treasuries and warehouses. Writing was invented not to write books but to keep books.

Obviously, accounting is as old as human civilization. And it has been experiencing evolution along with the advancement of such civilization. This position is confirmed by Sideboltam (1970) when he opined that at each stage of development man has used accounting according to their needs and within the limits of the recording and analyzing techniques known to them to enumerate and control assets, as a recording device for agents, stewards and tax gatherers, as evidence of trade, for the control of production and the management of business.

For the purpose of simplicity, good understanding and easy exposition, I would like to trace the development of financial accounting under the following parts.

2.2:1 Development in the period prior to nineteenth century

2.2.2 Development in the nineteenth century

2.2.3 Development in the twentieth century to the year 2000

2.2:1 Development in the Period Prior to Nineteenth Century

The concept of Accounting emerged in the life of man as a direct result of the need to keep records of economic and financial information. And it became so glaring when man started to engage in trade. In the words of Becklund and Karppinen (1970) “modern accounting developed out of man’s adjustments to the financial environment of the times when early man became engaged in trade. He needed a written language to provide a record of his transactions. The earliest known accounting records consisted of notched sticks, knotted strings and later painted objects and drawings”. They went further to mention that “Archaeologists have

determined that by the year 5,000 B C graphic symbols were used for commercial communication throughout Northwest Africa, Mediterranean Europe and the Near East. These symbols were actually the first known written language. The earliest known language. The earliest known tablets, apart from educational texts, were exclusively records of accounts".

The earliest forms of keeping accounting records were clumsy and cumbersome. Consequently, accounting records of the time were kept in a very scanty and summarized form. However, the development of the art of writing coupled with convenient writing materials, the replacement of barter system of exchange with the use of money and the development of arithmetic brought a significant improvement in keeping accounting records. This development was attested to by Hendrisen (1965) when he stated that "a more basic antecedent of accounting is the ability of expression. This includes the art of writing, the development of arithmetic and the wide-spread use of money".

Moreover, the monumental increase in the volume of commerce in some part of the world from the late eleventh century to the later part of the thirteenth century has a great impact on accounting in terms of its development. The upsurge in the commercial activity of the period was brought about by the effort of some European explorers or Crusaders.

Hendriksen (1965) captured the situation better thus "the most important condition giving rise to the development of accounting was the rise of trade centering around the medieval Italian cities. The crusaders from the close of the late eleventh century to the later part of thirteenth century provide the impetus for the development of trade among the Italian cities and with the east". As trade continued to expand, wealth accumulated in the Italian cities and individual trading became largely replaced by trading through agencies and partnerships.

Partnership was therefore important in the development of accounting because it led to the recognition of the firm as a separate entity distinct from the owners. The agency and credit in the world of commerce actually brought the need to improve the existing accounting systems. For instance partnership created the need to keep adequate accounting records that would ensure the determination of individual partners level of investment and the share of profits. The emergence of credit equally required accounting records that would enable adequate information about the loan that is granted or obtained. And lastly, the agency relationship required stewardship accounting for the benefit of the principal.

Furthermore, there was no gainsaying, about the existence of the principle of double-entry before 1494. However, the work of Fr Luca Pacioli, in 1494 which was titled "summa di ArithmeticaGeometiaproportionetproportionalita" which means everything about Arithmetic, Geometry and proportion," brought a turning point to accounting in terms of the popularization of the double-entry principle. Indeed, Pacioli's accounting system represented a landmark in accounting development. Its major objective was to provide information for the owners i.e., reporting on stewardship and serving as a basis for granting credit.

However, the major limitations of Pacioli's accounting system were as follows: -

i. Little distinction was made between the entity and the owner.

ii. There was no concept of accounting period. This means business profit could only be calculated at the termination of a venture with no accruals or deferrals.

Toward the end of the fifteenth century, the Italian cities started to fall from the political point of view. During this period, the center of commerce shifted sequentially from Italy to Spain, Portugal and North Europe. With the commercial shift was an accompanying shift in

accounting. A significant development did take place in the sixteenth and seventeenth centuries. According to Hendriksen z(1965) “one of the significant development early in this period was the practice of balancing the profit and loss at the end of each year rather than at the end of each venture. This practice was first proposed by the Dutch engineer and mathematician Simon Steven in the year 1605. This led to the recommendation a half century later by Jacques Savary that balance sheet be drawn up at stated intervals. In 1973, the code of commerce in France required that a balance sheet be drawn up at least every two years by every businessman. This period also saw the first personification of accounts that is the practice of treating accounts as independent living entities. There was also the standardization of debit on the left and credit on the right during this period.

Another important impetus behind the development of accounting in the seventeenth and eighteenth centuries was the individual and economic changes in Western Europe. There was the emergence of industrial revolution and the growth of Joint Stock Company and other forms of organization. However, it must be noted that the impact of these factors was much felt on accounting during the nineteenth century and beyond.

2.2.2 Developments in the Nineteenth Century

Although accounting took a long time to evolve, its development increased in the nineteenth century comparable to the preceding period. The force in this development was the industrial revolution. As the scale of enterprises increased following technological breakthrough such as mass production, and as fixed assets grew in importance, it became necessary to account for depreciation, the allocation of overheads and inventory. In addition there was emergence of joint stock companies. And this significantly brought about the separation of owners from management. This situation brought more pressures on the

accounting systems of the time in order to meet some certain needs. In the words of Becklund and Karppinen (1972) it was not until the onset of industrial revolution in nineteenth century that the increasing magnitude of the manufacturing enterprise and the division of ownership created the needs for professional accountants. In Britain, the laws regarding the public company and the keeping of accounts were established by the English Companies Act of 1844 and later reinforced the Companies Act of 1862. So the English companies Act established that accounting records were to be kept and audited by the owners or their representative to ensure the honesty of persons charged with financial responsibilities".

The most important things to note here are that the industrial revolution and government legislation greatly influenced accounting development during the period. The development of this period brought the need for professional accountants.

2.2.3 Development in the Twentieth Century to the Year 2000

During the twentieth century, the basic form of business organization shifted from limited liability and stock companies and ultimately to stock exchange listed corporations. Accounting has to adopt to satisfy these new needs. Increased government regulation of business and investments made new demands on firms which also generated new accounting system. Most notable was increased taxation of businesses and individuals, which brought with it new tax accounting systems and procedures.

Since the early 1900s, the rapidity of change and the increasing complexity of the world's industrial economy necessitated still more changes in accounting. For instance, mergers and acquisitions and the growth of multinational corporations fostered new internal and external reporting and control systems, with wide-spread ownership of modern corporations came new audit and reporting procedures and new agencies became involved in

promulgating accounting standards. Such agencies included securities and exchange commissions, stock exchange, internal revenue agencies etc.

It is worthy of note that most of the prevailing accounting standards either locally or internationally were developed during the twentieth century. The standards greatly influence accounting in the area of uniformity in approaches or procedures of accounting and adequate accounting information. Equally, financial accounting has experienced a lot of improvement in the twentieth century as a result of the effort of professional accounting bodies all over the world.

The accounting profession can be said to have attained a full fledge status in the present day. According to Welsch and Anthony (1981) "in the period since 1900, accountancy has attained the status in the profession similar to law, medicine, engineering and architecture. As with all recognized professions, it is subject to licensing, observes a code of professional ethics, requires a high level of professional competence, is dedicated to service to the public, require a high level of academic study, and rests on a common body of knowledge".

Therefore, to become a professional accountant, one needs to pass a required professional examination of appropriate body of accounting profession in any given country. There are two bodies in Nigeria, they are The Institute of Chartered Accountants of Nigeria (ICAN), which was established by the Act of parliament No 15 of 1965 and the Association of National Accountants of Nigeria (ANAN), which was established by decree No 76 of 1993.In addition, accounting has witnessed a lot of technological development in the twentieth and twenty first centuries. The emergence of computerization of accounting systems has led to

improvement in the ease of handling accounting functions in different organizations. It is hoped that accounting will continue to evolve along with changes in the technology.

The impact of social and behavioural factors on accounting in recent time is quite enormous. The new information requirement of society is putting more pressure on accounting. Consequently, challenge can be said to be the second nature of accounting. Nevertheless, accounting must continue to adapt to the changing needs of the society.

2.3 Importance of Accounting Education in the Economy

Economic activities such as buying and selling, construction works, partnership and agency businesses, and others like banking and insurance, communication and transportation etc. all require money in running their activities for the overall development of the economy. The need to keep proper records of the source of funds and how the funds are utilized is the overall importance of accounting in the economy and only trained/qualified personnel can impact the required knowledge and skill to the students. The need to study this all-time important subject (accounting education) has been emphasized by various scholars. Awenn(2008) remarked that "the economic actors, in both the private and public sectors of the Nigerian economy are required by various laws and professional pronouncements to make sure that they provide users with satisfactory financial report so that they could be guided in taking various economic decisions. Okwuosa (2005) supports this claim by saying section 334 of Companies and Allied Matters Act (CAMA) 1990 requires directors of every limited company to prepare in respect of each year of the company, financial statements, which shall include A profit and loss account; Statement of accounting policies; Notes to the accounts; The balance sheet as at the last day of the year; The directors report; The auditor's report; A cash flow

statement; A value added statement; A five year financial summary; In the case of a holding company the group financial statement.

He further added that this statements must comply in form and content with schedule 2 in the Statement of Accounting Standard (SAS).

This being the case, accounting education should be provided early enough especially to secondary school students who will be the ultimate managers of financial institutions and professional bodies in the economy. Stressing the role of accounting education in the economy Okejim (2000) said "the importance of accounting education lies in what money and wealth can do and the need for their appropriate management".

From the above, the need for accounting education cannot be over emphasized in that it allows for proper accountability and effective decision making about the use of funds by the local, state and federal governments, business organizations and citizens irrespective of their professional/occupational inclination. Okejim (2000) agrees with this when he stated that "the following need the knowledge of the basic principles of bookkeeping and accounts, the house wife, for proper management of and accountability for family feeding allowance (this will remove suspicions and accusations of misappropriation and extravagance from the husbands, the contractor, to enable him put appropriate quotations and calculate his true profits on contracts, the prospective investor, for correct assessment of the results and financial positions of companies he wishes to invests in or proper project evaluation". Based on the above Adams (2002), itemized the importance of accounting education from the perspective of accounting information as follows: -

a) To ascertain the propriety of transaction and their conformity with established rules.

b) To give evidence of financial accountability

c) To serve as a basis for planning

d) To serve as a basis for controlling

e) To serve as a basis for appraisal of management performance.

f) To ascertain the level of gross and net expenditure analyzed into head and subheads i.e. services and funds.

g) To ascertain sources of funds for revenue expenditure and how capital expenditure will be financed.

h) To ascertain the economy and efficiency with which the government carried out its functions and or pursued its objectives.

i) To determine the cost-effectiveness with which planned objects were achieved.

j) To ascertain details of financial commitments and the full cost of providing various services.

k) To ascertain key service indicators and comparison with targets etc.

Reynolds (1994) in Okejim (2002) summarized these when they said every group in the economic chain from the farmer to the merchant needs accounting information". It is accounting education that provides accounting information.This is supported by Oladepo(1991) who opined that "accounting education has the opportunity to assume the leading role and to accept the responsibility for developing the skills, knowledge and attitude necessary to meet the challenges of stewardship and emerging information technology". This is so because financial

information is a powerful tool for assessing the overall performance of the national economy in terms of growth and wellbeing of the citizens.

2.4 Teaching and Learning Financial Accounting in Secondary School

Teaching and learning are two activities that take place simultaneously in a formal school setting. It involves the teacher and the learners. Effective learning activities depend on the quantity of the teacher and the methods he uses to impart knowledge to the students. Teaching itself is an onerous task that requires experience and preparation. This is because learners at the introductory stage depend fully on the teacher before they adjust and adapt to other learning needs.

First and foremost, the financial accounting teacher at the Senior Secondary school level should be a qualified business teacher with adequate experience. According to Aliyu (2001) Teachers are the most important facet of the educational enterprise. A business teacher means a person who has undergone training in business Teacher Education programme including certification to teach business at the secondary school and post-secondary school levels".

Similarly, Kolawole (2010) said the teacher translates the scheme, aims and objectives of education into concrete action through teaching the learners in the classroom by employing suitable and varied methods in imparting the new knowledge, skills and attitudes designed for the consumption of his audience".

Also, the National Policy on Education (NPE) (2005) defined a teacher as a specialist in teacher education programme who has received his training and certificate from teacher training colleges of education, out stretch centres, NTI and universities where faculty of

education awards B.Ed, M.Ed and Ph.D degrees in education. It should be noted that teachers in this categories are professionals. They deal with issues and problems of teaching with remarkable success and make teaching attractive to students. (Abubakar and Dantani, 2005). In the same vein Okon (1984) defined a teacher as one who knows his subject and also teaches his students. It is expected that teaching should generally bring about the desired change in behavior through the actions performance and experience of the learner (Chauhan, 1980). This suggests that there should be a positive outcome in the activities of the learner which is the evidence the teacher relies on in order to know his successes and or failures. This position is further corroborated by Brown (1985) who views teaching as an attempt to help someone acquire a change, some skills, attitudes, knowledge, ideals or appreciation. From the above teaching and learning must be seen to go hand in hand, whereby the teacher is required to effectively sustain both sides of classroom atmosphere. Therefore, the role of the teacher, students and the learning environment which contribute to making teaching and learning a success are examined below.

2.4.1 The Role of the Teacher, Students and the Learning Environment

Although it seems as if most of the role of the teacher is capture in the definitions of who is a teacher is, there are other specific roles that have significant effects on student performance in financial accounting. In teaching bookkeeping concepts such as ledger, partnership, single entry etc, for instance, the teacher is expected to focus on the learners needs rather than teaching there concepts in abstracts. (Anukan (2004) in Umar (2009) argues that most of the alleged difficulties of teaching basic accounting concepts to younger secondary school students are mostly not an inherent difficulty in the subject, but initial over concentration on abstract classroom concepts without considering the effective instruction that

will take the needs of every student into consideration. Stuart (1997) agrees with this idea by saying teachers must first think of the student, rather than the content. As far as the classroom is concerned the teacher is the guide, mentor, role model and the reservoir of knowledge to the students. He is not negotiable.

Equally important is the issue of business teacher's skill in relating with students in the learning process. Therefore only highly proficient, dedicated and determined business educators are the ideal teachers to teach financial accounting. The teacher and students have to constantly interact on the positive side. This relationship brings students closer to the teacher thereby enabling him to understand their areas of weaknesses in his subject so that he can assist them overcome their academic challenges. Akinyemi (1986) strongly agrees with this view by suggesting that the teacher should respect students, be kind and respect individual differences as well as maintain self dignity. The concept of teacher/learner relationship simply requires teachers to understand that the child is the centre of interest and the centre of the curriculum which is the body of knowledge (Makah, Isa and Atiku, 2010).

Therefore teachers are expected to know the learners as well as other things that affect them, negatively or positively. Thus a positive teacher/learner relationship is boosted through proper use of teaching methods with the integration of classroom forces such as praising students where they behave well, entrench the spirit of group work for problem solving etc.

While the teacher and the learners are major stakeholders directly involved in the classroom, the school management too must play its part by ensuring a conducive learning environment. The school environment constitutes the physical facilities such as buildings, network of roads, sporting facilities, and other infrastructure which facilitate and enhance

learning. Of all the physical facilities required in the school adequate and conducive classrooms for the learners and offices for the teachers must be given top priority. Students should be comfortable in class, writing boards and writing materials must be in sufficient quantity too. The success of any method of teaching to a large extent is a function of the condition of the learning environment. Poor learning environment has negative effects on learning and vise versa.

2.5 Selection of Teaching Methods

The selection of a teaching method and formulating specific objective of the lesson is considered the key to the success of any lesson. In fact presentation of a lesson both at low and high levels of teaching must have a purpose and reasons from where the aims and objectives arise.

Method refers to an ability to present, discuss and explain issues, points, ideas to the best of one's knowledge for the purpose of understanding. Longman Dictionary of Contemporary English defines method as "a planned way of doing something, especially one that a lot of people know about and use". Method also is a process of imparting knowledge, ideas, and beliefs on a person or group of persons. According to Mary (1996), it is generally regarded as a guideline for promoting teaching and learning which involves various ways of manipulating instructional resources, materials and communication to make a learner receive the teacher's message clearly. This description shows that in the process of teaching several methods may be employed by the teacher to facilitate understanding by the learners.

Teaching is regarded as an activity in which a teacher, learners and material come in close contact with one another for the purpose of learning. Farrant (1980) argued that "the two terms, teaching and method of teaching are used inter changeably to mean a process of

directing and controlling the experiences of learners, stimulating the learners, organizing experiences for the learners and helping individuals to develop potentialities". Furthermore Gagne (1995) cited in Afe (1997), stated that a teaching method is a recurrent pattern of teacher-behaviour applicable to various subject matters, characteristic of more than one teacher and relevance of learning.

A close examination of all the definitions above reveals that a method is an activity that brings about desirable changes in learners that a teacher uses. There are many teaching methods, the popular teaching methods that are mostly used in business education subjects include: - lecture method, project method, discussion method, problem solving/inquiry method, Excursion/field trip method, discovery method, and demonstration method.

2.5.1 Lecture Method

The term lecture method (conventional method) is sometimes called explaining method or teaching method. It is probably the first method the teacher uses when learners start learning any subject. Verbal communication, short of manipulative work, is the chief characteristic of this method (Abubakar and Dantani, 2005). Lecture method may be the quickest way to impart facts through brief and spontaneous explanations in connection with other teaching methods. According to Cascone (1997) lecture method is sometimes the most appropriate method for disseminating information to a large group of students. Lecture method is a teacher centred approach in teaching and learning. Most times learners are passive because they only listen and may jot down facts where possible. The Universal Basic Education Board UBEB (2008) described lecture method as "a process whereby the teacher verbally delivers a pre-planned body of knowledge to learners. It involves verbal presentation of ideas, concepts, generalization and facts. It is characterized by one way traffic flow of information from teacher to students",

lecture method is mostly suitable at higher levels of learning, all that the teacher should do is to try as much as possible to arrest the interest and attention of the learners (Cashin, 1990).

According to Aliyu (2006), the suitability of lecture method in lesson delivery are: -

i) The teacher can pass across large volumes of information to students in a short time.

ii) It is particularly suitable were learners are many in a class.

iii) It makes learners to read wide to make-up for some information they could not get in the class.

iv) Teachers who use lecture method always have control of their class because learners are just passive listeners.

The demerits or limitations of lecture method among other are: -

i) it is not suitable for skill based courses.

ii) The teacher is often tempted to believe all learners understand him wereas not all learners learn at the same rate.

iii) Learners' participation in the lesson is discouraged. It is teacher centred.

iv) It does not allow for immediate feedback from the learners.

2.5.2 Project Method

Project method of teaching may be looked at as a teaching strategy used by teaches to assist students in identifying a problem either in their academic work, school environment or in the community where they live and proffer solutions to solving such a problem. Project method is used in carrying out tasks by an individual student or group of students to construct or produce something that illustrates some mechanism or technological principles (Imarhiagbe, 2003). Essentially, learners are required to develop a topic based on a given problem, for the

teacher's approval. The teacher who supervises the work develops a format/guidelines for the class. The guidelines are in stages such as introduction/background of the project, purpose of the work, objective(s) to be achieved, specific thing or area that the project will cover, method of collecting data and information, how conclusions are arrived at etc. It is the investigations in the stages that learners do themselves that make project method of teaching learner centred approach. Project method is a significant event of activity having educational value and aimed at one or more definite goals of understanding which involves investigating and getting solution to problems through planned manipulation of physical materials carried to completion by students and teachers in a natural real life manner (Aggarwal, 2009).

The teachers' involvement in project method is less compared to other methods of teaching because learners do most of the activities. The major role of the teacher is to guide and correct students when there are deviations from set goals and the final evaluation of the completed work.

Benefits of Project Method to Students

Project work encourages students to develop the spirit of independent work which builds confidence and ability to undertake harder tasks later in life especially, when it is done on individual basis. In group project work students have the opportunity to learn leadership and organizing qualities that are developed through peer interest. Students learn to make decisions regarding planning and execution of the project on their own. It logically follows that orderliness, thoughtfulness and responsibility in academic work are requirements for growth and performance (Harrison, 2011).

The major advantages that accompany project method for students and teachers are that, it helps students translate theoretical knowledge into practice which makes teachers have a sense of fulfillment or pride that they have done their job.

2.5.3 Excursion/Field Trip Method

This method is also called field trip. The use of excursion or field trip is an arrangement where learners are led by their teacher to visit an industry, agricultural farms, historical sites etc to see for themselves how things are done practically. Imarhiagbe (2003) observed that field trip is an effective method of studying modern industrial and business practices and processes which are not possible in the classroom.

Field trip requires careful planning and execution. It entails liaising with the school authority for approval to travel to the industry selected as well as seeking permission from that industry to allow students into their premises and arousing student interest to embark on the trip.

The concluding part is the report writing by students about what they have seen and learnt from the trip. The experiences students pass through help them to actualize their dreams on graduation.

Excursions are not easy to organize and are expensive, secondly accident may occur thereby endangering the lives of the teacher and students. It is also time consuming especially on the logistics involved.

2.5.4 Discussion method

Discussion is otherwise known as debate or conference (Reece and Walker, 1994). This teaching method largely depends on sharing ideas, information, beliefs, attitudes and

experiences. Discussion is a two-way verbal communication between teacher and the learners or between learners (Bello, 1981). An effectively guided discussion method brings about orderly exchange of ideas which in turn fosters respect among the members as each member makes an adequate contribution.

Discussion as a teaching method can be used at any phase of the lesson. According to Abubakar and Dantani (2005), discussion can be used during the introduction stage, in presenting each unit questions are asked by the teacher to assess whether the unit is understood or not and during the application phase, the teacher can also ask students questions with a view to recapitulating the lesson.Discussion method can be used by putting learners into groups. This is referred to as group discussion. The teacher has to specify the materials to be used, if any, and the activities to be done at a given time. In doing this the teacher should exercise care in mixing learners of different abilities either cognitive or psycho motor or both so that members of each group can benefit from in the discussion themselves.

2.5.5 Problem solving/inquiry method

According to Aliyu (2006) problem solving or inquiry method of teaching is a useful method of developing skills in students to learn how to solve problem by themselves by reflecting and pondering on alternative means of arriving at the expected solution. He further stated that it increases students understanding of related concepts and judgment in vocational courses such as typing of letter, writing reports and other production copy. UBEB (2008) regards this method as the type that allows learners to use scientific investigation to arrive at generalization and conclusion. On the other hand Merlot (2009) opined that this instructional method challenges students to “learn to learn” working in groups to seek solution to real life problem. It is a method that allows students to work on their own under the guidance of a

teacher until they arrive at a clear understanding of a problem by themselves and accept responsibility for all the trial and error steps before finally arriving at the correct answer.

The major advantage of this method is that students have the opportunity to work at their own pace and know the purpose for which they are working. It builds research skills and experiences that helps brilliant students become inventors in life. It generates interest and enthusiasm especially when expected solutions are arrived at in the end. However time may be taken and trial and error involved could discourage some learners.

But this research concentrates on discovery and demonstration teaching methods as follows: -

2.5.6 Discovery Method an Aid to Teaching and Learning

Discovery method of teaching is an appropriate method of teaching skill subjects especially financial accounting. This s because discovery method generates obvious enthusiasm and excitement in most children that is not obtained through mere formal presentations. (Livingstone, 2010). The discovery that is useful, however, is not random discovery but the discovery within an organized and structured framework that the teacher already has in mind.

Jerome Bruner is said to be the originator of discovery learning in the 1960s; although his ideas were similar to those of John Dewey. Bruner (1961) argues that discovery learning encourages active engagement, promotes motivation, autonomy, responsibility and independence, encourages the development of creativity and problem-solving skills and provides a tailored learning experiences. He further stated that “practice in discovering for oneself teaches one to acquire information in a way that makes that information more readily viable in problem solving”.

Discovery learning is an inquiry-based, constructivist learning theory that takes place in problem solving situations where the learner draws on his own past experience and existing knowledge to discover facts and relationships and new truths to be learned. Students interact with the world by exploring and manipulating objects, wrestling with questions and controversies, or performing experiments (Brantlinger, 1997). According to Alfieri, Aldrich, Brooks and Tenenbaum (2001) "discovery learning is a powerful instructional approach that guides and motivate learners to explore information and concepts in order to construct new ideas, identify new models of thinking and behavior. It is believed that well-designed discovery learning classroom sessions are highly experimental and interactive by using stories, games, simulations to grab attention, build interest and lead a journey of discovery toward new thinking, actions and behaviours. Discovery method of teaching is supported by the works of learning theorists and psychologists like Jean Piaget, Seymour Papert (Mayer, 2004). Dean and Kuhn (2006) affirmed that well-designed discovery learning sessions incorporate three key ideas:

(i) **Problem solving:** They guide and motivates learners to find solution by pulling together information and generalizing knowledge.

(ii) **Learner management:** They allow participants, working alone or in small teams, to learn in their own ways and at their own pace.

(iii) **Integrating and connecting:** They encourage integration of new knowledge into the learner's existing knowledge base and clearly connect to the real world.

Kim, Bonk and Teng (2009) support this key ideas by enumerating its benefits to include:

Training time is condensed, programs are fun, fast-paced and energizing, participants absorb course content via active participation, sessions are highly customizable and retention is high. The originator of the method Bruner (1961) further supported these attributes that learners will exhibit by saying student are more likely to remember concepts, if they discover them on their own as opposed to those that are taught directly, and concluded that this is the basis of discover learning. In pure discovery learning, the learner is required to discover new content through conducting investigations or carrying out procedure while receiving little, if any, assistance.

Koyan (1965), and Banks (1977) insist that the major arguments in favour of the discovery method as a desirable pedagogical techniques for teaching children rests on four premises.

a) It creates arousal for them and therefore, evokes their maximum attention.

b) The differential approach associated with the discovery method is likely to increase a child's expectancy that he is able to solve problems automatically.

c) Because the discovery approach requires extra intellectual effort; the value of a task associated with it is increased. In other words, it is reasonable to assume that activities become valuable to the degree to which effort is expected in their mastery.

d) The discovery approach gives the child more latitude and freedom and removes him from the submissive position ordinarily maintained between teacher and child.

Given all the above learning variables a student being taught financial accounting with the discovery method is expected to demonstrate appreciable understanding about the aims and objectives of the lesson. In addition learners can easily make out meanings from the concepts

which the teacher explains and demands them to do. This ultimately helps them to engage in working out solutions to simple accounting problems. The task of the teacher in this regard is to encourage and stimulate students readiness and interest to perceive concepts and situations in new ways.

2.5.7 Demonstration Method an Aid to Teaching and Learning

Chambers English Dictionary (1992) defines demonstration as "a pointing out; proof beyond doubt; expression of the feeling by outward sign; a show; a practical lesson or exhibition." Nwodo (2006) defines demonstration method "as a practical class activity involving the use of example, e.g. concrete objects, good models with a view to helping learners acquire or modify some skills, attitude, knowledge or ideas". He stated further that in this method, the sense of sight plays a very major role complemented by the sense of hearing, smelling and touching. Demonstration method has proved to be effective over the years because it is realistic and impressive. Real objects, good models can be used as examples and illustrations in teaching most topics in financial accounting. Demonstration is of two major types (i) method of demonstration; and (ii) result of demonstration. While the first teaches how, the other shows the result of doing something in a certain way. (Olaitan and Agusiobo, 1991). According to Ezewu (1997) there are many approaches to demonstration lessons which are appropriate to bring about meaningful learning. They include inductive, deductive, scientific or reflective, thinking, problem solving project, role playing and brainstorming approaches. Whatever approach the teacher adopts he must necessarily make use of instructional materials appropriate in that particular demonstration method. Okorie (2001) said the instructional materials that give meaning to learners in demonstration include among others.

i) Pictorial instructional materials: This includes photographs, slides, motion pictures, overhead projectors etc.

ii) Graphical instructional materials includes charts, graphs, diagrams, sketches, poster etc.

iii) Black board demonstration, exhibits, drama (role playing)

He concluded by saying these materials bring about interest and motivation to the students, make students from different background understand better at the same time, make students generate data through observation and helps the teacher overcome physical difficulties. This is corroborated by Duru (2010) who sad "the teacher can influence the learning task, defines and clarifies it, and presents materials and represents materials and resources in the classroom. He also measures the pupils achievement and gives them encouragement to go on and tackle new tasks. Demonstration method is about the most outstanding teaching method because the learners can hear, see and use the learning materials themselves, draw conclusions and predict outcomes.

2.6 Empirical Studies

Some individuals have undertaken similar studies which are related to the one undertaken by the researcher. Among them are: -

Anukan (2004) conducted a study on the comparison of the achievement of students taught Accounting by Experimental and that of those taught by Traditional approaches. The purpose of the study was to determine the level of awareness of senior secondary school students on double entry principles of accounting, the effect of teaching double-entry principles of accounting by experimental instructional approach and traditional approach on student's retention ability. It was also to compare male and female student's achievement in double entry

principles of accounting based on experimental instructional approach. The population for that study was 100 Accounting students in 4 public secondary schools and the same number of students was taken as sample size, made of the same social-economic background, admission and promotion policy and the same public secondary schools. The researcher formulated three research questions and null hypotheses for the study. After 4 weeks of treatment using 160 minutes per week, a test was conducted and the result analyzed at the alpha (a)level of 0.05 using t-test statistical method.

The study revealed that the experimental instructional approach in the groups displayed aptitude concerning retention of double entry concept than the traditional approach. The result also showed that the knowledge of double entry accounting method was low and very much inadequate among many students tested in the study. The researcher observed certain uncontrollable variables which were not clearly stated in the study, which might have contributed to the said result. Among these were the classroom environment, teacher qualification, and the students 'academic ability'. The use of one post-test is equally not good enough for such generalization of result. This study was related to this work, because of the satisfaction measured in the study but different because the study was carried out in more than two schools of different setting.

Nwodo (2006) investigated on the effectiveness of lecture and demonstration methods of teaching accounts in Lagos state. The study tested the gender variables in learning accounts and secondly to determine the more effective method of teaching accounts at this level. The study was carried out using only two Junior secondary schools, a coeducational school in mainland local government area of the state. The population for the study was 360 and 660 from Finban's College and our Lady's College respectively. 30 students each were used as

sample from both schools. The researcher formulated three research questions and null hypotheses. The researcher taught four lessons which lasted for 40 minutes in each school. He administered pre-test and post-test and used percentage to analyse the mean score of the tests. The t-test statistic was also used to test the relative performance of the two means at 0.05 level of significance. The result showed that female students taught by demonstration method in accounts performed better than male students taught by lecture method.

The study is related to this present study in the sense that the sample are drawn from two schools as the present study intends to do but different because it was carried out at a junior level of secondary school whereas the present study wascarried out at senor secondary school where students prepare for WASSCE examination. Secondly, it was based on gender variable while the current study will attempt to measure performance on both genders simultaneously.

Umar (2006) carried out a similar study on exposition (lecture) and inquiry methods of teaching financial accounting at SS 2 level in two secondary schools in kaduna state. The study concentrated on comparative analysis of the two teaching methods with the specific objectives of determining which of the two methods helped the students to perform better. She developed four research questions and hypothesis. The population for the study was 187 students out of which 20 students each were sampled from 2 schools and taught for 5 weeks. She conducted pre-test and post-test and concluded that performance in financial accounting by students taught with the two methods does not necessarily dependon the two types of method of instruction used, rather it depends on the combination of such factors as teachers qualification, teachers skill and strategies.

This study is related to the current study being undertaken by this researcher because it was an attempt to measure effects of methodology on performance.However, it is significantly different in scope and type of methods. In addition the present study will be conducted in public schools rather than private schools and not gender based.

Closely related to this still is another study by Ojo (2007) on SS III students in Oyo Local government area of Oyo State. The experiment was on the differential of effectiveness of classroom goal structures using 168 students who were randomly assigned to treatment conditions. They were assigned to work in groups based on sex and capability.

The researcher collected data through chemistry achievement test, test of problem – solving skills and science attitude scale. These test were given to the students as pre-test and post-test after treatment. The analysis of data by statistical tools such as means, standard deviations, covariance revealed that the task itself, its familiarity or unfamiliarity influenced performance.Gender of student was not a factor responsible for performance.

The researcher noted that the sampling procedure in this study being referred to is not explained and neither the population of the students in the treated groups nor the method of teaching adopted clarified. However, it is related to the current study because experimental procedure will be similar.

Onwukwe and Ezemoyih (2012) also carried out an empirical study on the effects of Demonstration method, electronic media and lecture methods on students interest in Accounting education in Owerri, Imo state. The purpose of the study was to determine the effects of demonstration, electronic media and lecture methods on student's interest in accounting among Junior Secondary School II (JSS II) students. A population of 246 students

was used in the research. Five (5) null hypothesis were formulated and Solomon's three group design was adopted in testing the mean interest scores in the three methods used at 95% confidence level.

The result showed that both demonstration method and electronic media enhance learners interest in accounting. They reported that demonstration method was found to be more effective in providing students' interest in accounting than the use of electronic media and that a non significant difference existed between the mean interest scores of male and female accounting students taught with either demonstration method and also those taught using electronic media.

Although their work is commendable for revealing that demonstration method created more interest in the students than the rest two methods, the researchers did not show specific variables that made other methods less effective.

Onwukwe and Ezenoyih (2012) study is similar to the present study because both of them are on investigation of the effectiveness of teaching methods in accounting. Both studies did not adopt control but only compared the methods of teaching. They are also similar because both studies are carried out at the secondary school level. The differences in the two studies are: the location and the duration of the experiment. Also the pilot study of Onwukwe and Ezemoyih'swork was carried out within the study area, while the current one was carried out outside the study area.

Omodara (2012) conducted a study on the comparative analysis of the effectiveness of some teaching methods in skill acquisition by agricultural students in colleges of education in Kaduna state. He specifically studied demonstration, experimental and project teaching

methods. He formulated four (4) null hypothesis and carried out the study in two colleges of education in GidanWaya and Federal College of Education, Zaria. The population for the study was 439 students from both colleges. He developed pre-test and post-test instruments for data collection and used two weeks for the study and the results generated were tested using t-test and oneway analysis of variance (ANOVA) statistics to test the mean differences at 0.05% level of significance. The findings revealed that the three teaching methods studied were effective in teaching student skill acquisition in agricultural education but on the whole, demonstration teaching method was the most effective followed by project method and experimental being the least effective.

The similarities of the two studies are that; both of them are investigating effectiveness of teaching methods. The methodology adopted are the same in data gathering because both use Pre-test and Post test, the present study intend to use t-test statistic to test level of significance at 0.05%.

However, they are significantly different in terms of the level of students; while Omodara's study is at the college of education level but the current study is at the SS II in Secondary school. Again he investigated three (3) teaching methods while the present study is focusing on only two methods and in different subject areas.

2.7 Summary of Literature Reviewed

As far as teaching and learning is concerned the teacher is the critical factor. The role of the teacher in the learning process can be likened to the role of a driver of a vehicle or a pilot of an airplane in the transport sector. The goal of the whole education industry and the society in general cannot be achieved without the teacher. So the onus of making children to learn and

understand, discover their talents and abilities, perform academic tasks as required, inculcate societal values and culture rests squarely on the teacher.

It has been proved beyond reasonable doubts through studies that where appropriate methods of instruction have been effectively used to teach students they learn and perform well. Where students cannot perform we can safely conclude that learning did not take place.

The two methods of teaching discussed in this research work namely, guided discovery and demonstrated methods are methods that emphasized varying degrees of participation by the learners. It is a known fact that any method that involves participation by the learner encourages and appeals to cognitive, affective and psychomotor domains of learning and are therefore learner centred. Accounting being a skill subject not only require learner centred approaches to teaching it, but demands understanding of each step in the presentation of the lessons for comprehending the whole topic in a given part of the subject. This is what makes a particular method a key to learning.

The theoretical framework of the study is based on learning theory of Jean Paijet, types of learning and factors affecting learning and how they can be managed have been discussed. Empirical studies have been sited, gaps observed, areas of differences and similarities between them and the current study have also been highlighted.

The gap which will be filled at the end of this study is that demonstration and discovery method of teaching financial accounting at the senior secondary school level in Kaduna state are the best methods to be used in teaching the subjects.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter contains the research design, the methods and procedures followed in the study. They are presented under the listed headings below:

3.1 Research Design

3.2 Population for the Study

3.3 Sampling size and Sampling Procedure

3.4 Instrument for Data Collection

3.4.1 Validity of the Instrument

3.4.2 Pilot Study

3.4.3 Reliability of the Instrument

3.5 Procedure for Data Collection

3.6 Procedure for Data Analysis

3.1 Research Design

The research design for the study was quasi-experimental with pre-test, post-test and control group. According to Olayiwola (2007) in quasi-experimental design, intact samples in their natural settings like classrooms ware used. A measurement of dependent variables was made both before and after treatment conditions. The difference in scores of pre-test and post-test of these naturally assembled groups ware calculated and compared.

3.2 Population for the Study

The population for the study was made up of all senior secondary school (SSSII) students offering Financial Accounting in the 8 zones namely:

Gado-Gado, Kachia, Kaduna, Kafanehan, Lere, Rigachikun, SabonTasha and Zaria out of the 12 zones of Kaduna state ministry of education (2013). The population comprised of 1016 students from 22 senior secondary schools in Kaduna State as stated in table 3.1.

Table 3.1 Population for the Study

S/N	Zone	Name of school	Location	Year Established	No. of SSS II students
1.	Zaria	Barewa College	Zaria	1921	50
2.	Kaduna	Capital School	Kaduna	1957	62
3.	Zaria	Government Commercial College	Zaria	1959	41
4.	Kaduna	Government College	Kaduna	1970	60
5.	Sabon Tasha	Government Senior Secondary School	Narayi	1976	70
6.	Anchau	Government Secondary School	Makarfi	1979	48
7.	Gado-Gado	Government Secondary School	GidanWaya	1979	80
8.	Kachia	Government Secondary School	Kachia	1981	76
9.	Kaduna	Government Girls Senior Secondary School	MaimunaGwarzo	1982	53
10.	Kaduna	Government Girls Senior Secondary School	Doka	1985	15
11.	Kaduna	Government Girls Senior Secondary School	Ung. Muazu	1985	34
12.	Sabon Tasha	Government Girls Senior Secondary School	Bernawa	1987	60
13.	Zaria	Government Girls Senior Secondary School	DogonBauchi, Zaria.	1988	33
14.	Gado-Gado	Government Secondary School	Gado-Gado	1989	58
15.	Sabon Tasha	Government Senior Secondary School	Kakuri	1993	25
16.	Kaduna	Rimi College	Kaduna	1994	58
17.	Kaduna	Government Girls Secondary School	Ung. Sariki	2000	50
18.	Kaduna	Government Secondary School	Rigasa	2001	58
19.	Rigadukun	Government Senior Secondary School	Dan Dawa	2001	30
20.	Sabon Tasha	Government Senior Secondary School	KasuwaMagani	2001	31
21.	Kafanchan	Government Senior Secondary School	Nok	2002	4
22.	Sabon Tasha	Government Senior Secondary School	Ung. Romi	2003	70
Total					**1016**

Source: *Kaduna state ministry of education list of schools in zones, Feb., 2013.*

3.3 Sample Size and Sampling Procedure

All the 22 schools in the population of the study are state government owned schools which are regulated in the same way. Therefore, the researcher used purposive sampling technique in selecting Barewa College Zaria for the experiment.

In the same way purposive sampling technique was used in selecting 45 students out of the total of 50 that are offering Financial Accounting in the college. The 45 students selected were divided into 15 students each based on their registration numbers – beginning from 001 – 015 Group 1, 016 – 030 Group 2 and 031 – 045 Group 3 as shown in table 3.2.

Table 3.2: Sample Size

Name of School	**Number of Students for Each Method**
Barewa College Zaria	Demonstration Experimental Group –15 Discovery Experimental Group - 15 Lecture Control –15

3.4 Instrument for Data Collection

Two tests were developed by the researcher for the purpose of collecting data for the study. The first one is Financial Accounting Intelligence Test I (FAIT- 1) which was used as pre-test and Financial Accounting Achievement Test 2 (FAAT – 2) which was the post –test. The questions of the two tests were developed based on the SS IIFinancial Accounting syllabus with reference to WASSEC and NECO past question papers to ensure standard. The Financial Accounting Intelligence Test was made up of fill – in – the gap to enable the researcher assess

the level of understanding the students have of the part of the syllabus covered before and after treatment.

The Financial Accounting Achievement Test – 2 consists of two parts. Part A has 25 objective questions while Part B has 1 Essay question drawn up from WASSCE past questions of 2006 – 2010 with modifications based on the topic "final accounts of a sole proprietor" that the researcher taught.

The post-test questions coveredall areas of final accounts and other basic principles on making entries in the relevant books. The questions were such that the students could recall what they have been taught. Sample lesson plans are shown in appendices III – IV.

3.4.1 Validity of the Instrument

The need to ensure the validity of test instrument was given top priority. The researcher developed all the test instruments, that is Financial Accounting Achievement Test – I (pre-test) and Financial Accounting Achievement Test –2 (Post – test) and gave them to his supervisors and other experts not below the rank of Senior Lecturers in accounting in ABU, Zaria, who are experienced authorities in Accounting for criticisms, suggestions and corrections before it was produced and administered. Kerlinger (1977) and Olayiwola (2007) agreed that content validation of research instruments by experts is an acceptable type of validation.

3.4.2 Pilot Study

A pilot study was carried out at Government Secondary School FuntuaKatsina state. According to Umar (2009), "the use of pilot study is the best way to validate instruments for data collections". In order to test the content face validity of the instrument. SS II Financial Accounting students were used for the pilot study.

The students were randomly divided into two groups of 20 each. The two groups were given the instruments (pre-test and post-test) concurrently. The result is as shown in table 3.3.

Table 3.3 Result of Pilot Study

Number of Students	**Pre-test**	**Post-test**
Mean Score	42.7	33
Standard Deviation	6.37	5.67

The result of the pilot study shows that the mean scores of pre-test and post-test are 42.7 and 33.8 while standard deviations are 6.37 and 5.67 respectively.

3.4.3 Reliability of the Instrument

In order to ensure the reliability of the instruments, the theory and fill-in-the-gap test questions already validated by experts in Accounting were used to determine the reliability of the instrument. Two groups of SS IIAccounting students of Government Secondary School Funtua, were given the tests. The results were analyzed using Spearman-brown formular, r =2r/1+r. the co-efficient was found to be 0.79 which showed that the internal consistency is significant enough for reliability. According to Afolabi (1998) “a co-efficient of 0.75 for any pilot study is significant enough for reliability of the instrument for data gathering”.

3.5 Procedure for Data Collection

The researcher collected a letter of introduction/identification from the Department of Vocational and Technical Education to facilitate approval in the chosen research schools (a copy of the letter is in appendix I). The researcher then proceeded to the schools and requested to be allowed to conduct the study.

The researcher had casual verbal interactions with all the students concerned after which the Financial Accounting Intelligence Test (FAIT – I pre-test)as in appendix IV developed by the researcher was given to them. The total number of students who passed the pre-test in Barewa College was used for the experiment. The topic taught was 'final accounts of a sole proprietor'.

Demonstration and discovery teaching methods were used for the period of 2 weeks (2 contacts of 2 hours each per method). At the end of the treatment the post-test was administered and scores were recorded. This is howdata was collected.

3.6 Procedure for Data Analysis

Statistical tools such as frequency table, mean and percentage (%) were used to analyze the data that was gathered by the two instruments in order to answer the research questions on the impact of demonstration and discovery methods of teaching against lecture method.

Similarly, null hypotheses 1 – 3 were tested with t-test statistic while one-way Analysis of Variance (ANOVA) was used to test the null hypothesis four (4) at alpha level of 0.05 significance. These statistical tools are deemed appropriate because they do not require any assumptions.

Decision Rule

The decision rule for accepting or rejecting any hypothesis is based on WAEC and NECO O'Level examination scores grading system. This is because the two test instruments; Financial Accounting Intelligence Test – I (FAIT-I) and Financial Accounting Achievement Test – 2 (FAAT-2) were developed based on WAEC and NECO Financial Accounting Syllabus and past questions papers to ensure standard. Scores are weighted as follows: 10 – 19.9: Very

Weak (Fail), 20 – 39.9: Weak (Fail), 40 – 59.9: Fair (Pass), 60 – 69.9: Strong (Credit), 70 and above:Very Strong (Distinction).

A decision was taken based on the results of the analysis. In the t-test analysis, where the value of t-calculated is greater than t-critical, the null hypothesis is rejected, whereas if the value of t-calculated is less than t-critical the null hypothesis is retained. The same rule applies to Analysis of Variance (ANOVA) statistic.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

This chapter presents the data and statistical analysis of the responses of the students on the Impact of Discovery and Demonstration methods of teaching Financial Accounting in Senior Secondary Schools in Kaduna State. Data generated from Assessments after the experiments are presented along with the research questions. Each of the research questions were analyzed using mean scores. The mean scores for discovery method were compared with demonstration method. Any method with a higher mean score among the two methods was considered to have aided high student's performance in accounting. The hypotheses of the study and discussion of findings were also presented. Inferences and deductions that were drawn from the results are hereby presented below:-

4.1 Answer to Research Questions

4.1.1 Research Question One

4.1.2 Research Question Two

4.1.3 Research Question Three

4.1.4 Research Question Four

4.2 Null Hypotheses Testing

4.2.1 Null Hypothesis One

4.2.2 Null Hypothesis Two

4.2.3 Null Hypothesis Three

4.2.4 Null Hypothesis Four

4.3 Summary of Major Findings

4.4 Discussion of Findings

4.1 Answer to Research Questions

Research Question One: What is the level of effect of demonstration method of teaching Financial Accounting on students performance in the subject at the Senior Secondary School level in Kaduna State?

The result obtained from the experiment have been summarized and presented in table 4.1.1 as seen below.

Table 4.1.1: Mean score of Demonstration method of Teaching Financial Accounting

Students' Group	N	Mean Scores	S.D	S.E	Remark
Demonstration method (Exp)	15	62.40	9.12	2.35	Strong
Lecture Method (Control)	15	39.13	11.66	3.01	Weak

Source: Field study, 2014

Based on the data presented in Table 4.1.1, there were fifteen students each in the two groups, that is the group taught using Demonstration method and those taught using lecture method. The group taught using Demonstration method had mean score of 62.40, standard deviation (S.D) of 9.12 and standard error (S.E) of 2.35. On the other hand, those taught using Conventional (lecture) method had mean score of 39.13, standard deviation (S.D) of 11.66 and standard error (S.E) of 3.01. Thus, with the mean score of 62.40 for Demonstration method as against the mean score of 39.13 for Conventional (lecture) method, it showed that students taught using Demonstration method had higher academic performance in Financial Accounting than those taught using Lecture method. Therefore, a further look at the table shows a mean difference of 23.27 further attesting to the fact that students performed better when taught with Demonstration method.

Research Question Two: What is the level of effect of discovery method of teaching Financial Accounting on the students academic performance in the subject at the Senior Secondary School in Kaduna state?

The results in Table 4.1.2 were used in answering the research question.

Table 4.1.2: Mean score of Discovery method of Teaching Financial Accounts

Students' Group	N	Mean Score	S.D	S.E	Remark
Guided Discovery method (Exp)	15	43.73	12.63	3.25	Fair
Lecture Method (Control)	15	39.13	11.66	3.01	Weak

Source: Field study, 2014

The data in Table 4.1.2 revealed that there were fifteen students each, taught using Guided Discovery method and Conventional Method (lecture). The group taught using Guided Discovery method had mean performance of 43.73, standard deviation (S.D) of 12.63 and standard error (S.E) of 3.25. On the other hand, those taught using Conventional (lecture) method had mean performance of 39.13, standard deviation (S.D) of 11.66 and standard error (S.E) of 3.01. Thus, with the mean score of 43.73 for Discovery method as against the mean score of 39.13 for Lecture method, it clearly showed that students taught using Guided Discovery method had higher academic performance in Financial Accounting than those taught using Lecture method with a mean difference of 4.6.

Research Question Three: What is the difference between the academic performance of students taught Financial Accounting using Demonstration method and those taught using Discovery method?

Table 4.1.3 was used to determine the difference between the performance of students taught using Demonstration method and those taught using Discovery method.

Table 4.1.3 Difference between the performance of students taught using Demonstration and Discovery methods.

Students' Group	N	Mean Score	S.D	S.E	Remark
Demonstration method (Exp)	15	62.40	9.12	2.35	Strong
Guided Discovery Method (Exp)	15	43.73	12.63	3.25	Fair

Source: Field study, 2014

Table 4.1.3 revealed that, fifteen students taught with Demonstration method had mean performance of 62.40, standard deviation (S.D) of 9.12 and standard error (S.E) of 2.35. on the other hand, those taught using Guided Discovery method had mean performance of 43.73, standard deviation (S.D) of 12.63 and standard error (S.E) of 3.25. Thus, with the mean performance of 62.40 for Demonstration method as against 43.73 for Discovery method, it showed that students had better and higher academic performance when demonstration method is used to teach Financial Accounting than when discovery method is used.

Research Question Four: What is the difference among the methods and the academic performance of students taught Financial Accounting at Senior Secondary School in Kaduna State?

The result obtained from the experiment have been summarized and presented in table 4.1.4.

Table 4.1.4 Differences among the three instructional methods

Students' Group	N	Mean Score	S.D	S.E	Remark
Demonstration method (Exp)	15	62.40	9.12	2.35	Strong
Guided Discovery Method(Exp)	15	43.73	12.63	3.25	Fair
Lecture Method (Control)	15	39.13	11.66	3.01	Weak

Source: Field study, 2014

Table 4.1.4 showed that three groups of students of fifteen each were taught Financial Accounting using three instructional methods of teaching namely Demonstration, Discovery and Lecture methods. The group taught using Demonstration method had mean performance of 62.40, standard deviation (S.D) of 9.12 and standard error (S.E) of 2.35. Those taught using Guided Discovery method had mean performance of 43.73, standard deviation (S.D) of 12.63 and standard error (S.E) of 3.25. Those taught using Lecture method had mean performance of 39.13, standard deviation (S.D) of 11.66 and standard error (S.E) of 3.01. Thus, with the mean performances of 62.40, 43.73 and 39.13 for Demonstration, Discovery and Lecture methods respectively. It showed that among the three groups, those taught using Demonstration method had a better academic performance than those taught using the other two methods.

4.2 Null Hypotheses Testing

In pursuance of the objectives of this study and to provide statistical solutions to the question raised, four null hypotheses were formulated. For null hypotheses one, two and three, paired sampled t-test statistics was used, while Analysis of Variance (ANOVA) statistic was used to test the null hypothesis four. The hypotheses were tested as follows:

Null Hypothesis One: *There is no significant effect of Demonstration method of teaching financial accounting on students' academic performance at Senior Secondary School Level in Kaduna State*

The paired sample t-test was therefore used for the hypothesis. This is because it enables the t-value to be compared with t-critical which indicates agreement on the differences. The result of the test is summarized in table 4.2.1.

Table 4.2.1: Paired sample t-test between Demonstration Method and Lecture Method

Variables	N	Mean	Std. deviation	t-Cal	t-Crit	DF	P	Remark
Demonstration Method	15	23.26667	17.55590	5.133	2.14	14	.000	Rejected
Lecture Method	15							

Source: Field Study 2014 **t(14) 2.14, P<0.05**

The test in table 4.2.1 revealed the result of paired sample t-test analysis used for testing the differences between the academic performances of students taught using Demonstration and Lecture method. The table revealed that 15 students were sampled for Demonstration method in the experimental group and 15 for Lecture method in the control group. The observed t-calculated is 5.133 which is greater than the t-critical of 2.14 at 14 degree of freedom and the probability level of significance observed in the test is 0.000 ($P < 0.05$). This indicates that

there was a significant impact in the performance of the students between Demonstration Group and Lecture Group. Therefore, the null hypothesis that there is no significant effect of Demonstration method of teaching financial accounting on students' academic performance at Senior Secondary School Level in Kaduna State was therefore rejected.

Null Hypothesis Two: *There is no significant effect of Discovery method of teaching financial accounting on students' academic performance at Senior Secondary School Level in Kaduna State?*

The result of the paired samplet-test is summarized in table 4.2.2.

Table 4.2.2: Paired sample t-test between Discovery Method (Experimental) and Lecture Method (Control)

Variables	N	Mean	Std. deviation	t-Cal	t-Crit	DF	P	Remark
Guided Discovery Method	15	4.60000	4.17133	4.271	2.14	14	.001	Rejected
Lecture Method	15							

Source: Field Study 2014 **t(14) 2.14, P<0.05**

The test revealed that 15 students were sampled for Discovery method in the experimental group and 15students for Lecture method in the control group. The observed t-calculated is 4.271 which is greater than the t-critical of 2.14 at 14 degree of freedom and the probability level of significance observed in the test is 0.001 ($P < 0.05$). This indicates that there was significant effect in the performance of the students between Guided Discovery Group and Lecture method Group. Therefore, the null hypothesis that there is no significant effect of Discovery method of teaching Financial Accounting on students' academic performance at Senior Secondary School Level in Kaduna State was therefore rejected.

Null Hypothesis Three: *There is no significant difference between the effect of Discovery and Demonstration method of teaching financial accounting at the Senior Secondary School Level in Kaduna State?*

The result of the paired sample t-test between discovery method and demonstration method is shown in table 4.2.3.

Table 4.2.3: Paired sample t-test between Discovery Method and Demonstration Method

Variables	N	Mean	Std. deviation	t-Cal	t-Crit	DF	P	Remark
Demonstration Method	15	18.66667	17.92312	4.034	2.14	14	0.001	Rejected
Discovery Method	15							

Source: Field Study 2014 **t(14) 2.14, P<0.05**

The test revealed that 15 students were sampled for Demonstration method and also 15 students were sampled for Discovery method. The observed t-calculated is 4.034 which is greater than t-critical of 2.14 at14 degree of freedom and the probability level of significance observed in the test is 0.001 ($P < 0.05$). This indicates that there was significant effect in the performance of the students between the pre-test and post-test from the two methods of teaching. Therefore, the null hypothesis that there is no significant difference between the effect of Demonstration and Discovery methods of teaching Financial Accounting at Senior Secondary School Level in Kaduna State was therefore rejected.

Null Hypothesis Four: *There is no significant difference among the methods and the academic performance of students in Financial Accounting at the Senior Secondary School level in Kaduna State.*

The analysis of variance (ANOVA) statistic result are given below in table 4.2.4

Table 4.2.4: Analysis of Variance (ANOVA) statistic to test the performance of students taught Financial Accounting using Demonstration, Discovery and Lecture teaching Methods.

	Sum of squares	Df	Mean Square	F-cal	F-critical	P	Remark
Between Groups	2091.183	8	261.398	11.223	3.60	0.004	Rejected
Within Groups	139.750	6	23.292				
Total	2230.933	14					

Source: Field Study 2014 **F(8, 6) = 11.223, P<0.05**

Table 4.2.4 revealed that the sum of squares between groups was 2091.183, the degree of freedom (df) as 8 and the mean square was 261.398. On the other hand, the sum of squares within groups was 139.750, the degree of freedom (df) as 6 and the mean square was 23.292. The f-calculated of 11.223 is greater than the f-critical of 3.60 and the probability level of significance observed in the test is 0.004. This indicates that there was significant difference in the performance of students in Financial Accounting when taught with Demonstration, Discovery and Lecture teaching methods. Therefore, the null hypothesis that there is no significant difference in the performance of students taught Financial Accounting using Demonstration, Discovery and Lecture methods at Senior Secondary Schools in Kaduna State was therefore rejected.

4.3 Summary of Major Findings

1. Demonstration method of teaching Financial Accounting has positive effect on the academic performance of secondary school students in Kaduna State.

2. Discovery method of teaching Financial Accounting has positive effect on the academic performance of secondary school students in Kaduna State.

3. From the study, it was discovered that there was significant difference in the performance of students in demonstration method and discovery method of teaching Financial Accounting at the secondary school level.

4. It was also found that there was significant difference in the performance of students from the three teaching methods with students performing higher in Demonstration methods than in Discovery and Lecture methods.

4.4 Discussion of Findings

Demonstration method of teaching according to Clark, (2005) is based on the simple but sound principle that we learn by "doing and it is accompanied by explanations on the part of the teacher. The findings revealed that the analysis of students' performance in Financial Accounting using both demonstration and discovery methods of teaching show that both methods have positive impact on the students' performance. The research question one showed that the mean score for Demonstration method was 62.40 while that of Lecture method (control group) was 39.13. This reveal that the Demonstration group after going through weeks of teaching Financial Accounting using Demonstration method performed better than the control group. It was further observed in the test of null hypothesis that the probability level of significance observed in the test was 0.000 ($P < 0.05$). This shows that demonstration method

has positive effect on secondary school students performance in Financial Accounting. The finding is in agreement with Nwodo (2006) who sees demonstration method as a practical class activity involving the use of examples as this plays a very important role in complementing what was learned. Demonstration method has proven to be effective over the years in improving students performance in skill subjects because of its realistic and impressive approaches. In the words of Bello (2003), the successful learning of accounting in secondary schools depends largely on the correct use of teaching methods. Also, according to Ken, (2004) Demonstration method gives every student the ample opportunity to see critical elements involved in solving out an account. Demonstration method is about the most outstanding teaching method when teaching financial account as asserted by Duru (2010) because the learners can hear, see and use the learning materials themselves, draw conclusions and predict outcomes. This teaching method can only be effective if it is properly chosen and used. Demonstration method when used by the skillful teacher, has the tendency of improving better performance of students in Accounting.

The result of the findings also revealed that Discovery method of teaching have a fairly positive effects on secondary school students performance in accounting as shown in table 4.2 and in the test of hypothesis 2. Discovery method is another appropriate method of teaching skill subjects especially Financial Accounting because it helps to generate obvious enthusiasm and excitement in most children that could sometimes not be obtained through mere formal presentation. According to Alfieri et al., (2001) discovery learning is an inquiry-based, constructivist learning theory that takes place in problem solving situations where the learner draws on his own past experience and existing knowledge to discover facts and relationships and new truths to be learned. The research question two showed that the mean score for

Discovery method was 43.73 while that of control group was 39.13. This showed that the experimental group had better score than the control group. The finding is in line with Moses, (2003) who stated that discovery method is a teaching technique that encourages students to take a more active role in their learning process by answering a series of questions or solving problems designed to introduce a general concept. Here students have better retention of knowledge since they discover most of the facts on their own and require a lot of teaching materials to illustrate concepts and ideas. It was further observed in the test of null hypothesis that the probability level of significance observed in the test was 0.001 ($P < 0.05$). This shows that discovery method has effect on secondary school students in Kaduna state.

From the findings it was discovered that demonstration method had more positive impact on the students performance in Financial Accounting in senior secondary school in Kaduna state than discovery method. Table 4.3 shows that Demonstration method of teaching had a mean score of 62.40 when used to teach Financial Accounting while Discovery method had a mean score of 43.73, revealing a difference of 18.67. It was further observed in the test of null hypothesis that the probability level of significance observed in the test was 0.001 ($P < 0.05$). This shows that both methods have effect on secondary school students in Kaduna state. Having stated that the level of failure in Financial Accounting in both NECO and WASSCE is high, the need to identify and sensitize stakeholders on the best possible method of teaching skill subjects like financial accounting becomes relevant. The successful learning of accounting in secondary schools depends largely on the correct use of teaching methods, whose activities target most learning experiences (Bello, 2003). From the findings, it could be asserted that while discovery method is a powerful instructional approach that guides and motivates learners to explore information and concepts on their own, demonstration method goes a further step in

creating retentive memories of the moments in class the teacher could give a demonstration or a format expected to be used in solving a specific accounting task as well as emphasize and explain specific important points with regards to the format.

Lastly, the effect of Demonstration, Discovery and Lecture methods of teaching Financial Accounting in secondary schools in Kaduna state revealed that there was significant difference from the performance of students as presented in Table 4.4 and 4.8. It was revealed in the test of hypothesis that there was significant difference between and within the groups from the Analysis of Variance (ANOVA) statistic carried out with a significance level of 0.004 ($P < 0.05$). This shows that students from Barewa College had better understanding and better performance judging from the three different methods tested after going through the experimental teaching period stipulated in the study.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The study primarily was undertaken to comparatively determine the effect of Demonstration and Discovery methods of teaching financial accounting on the performance of students in Senior Secondary Schools in Kaduna state, Nigeria. In an attempt to make the research free from ambiguities and to achieve the stated objectives of the study, four research questions were raised and four null hypothesis were formulated in the first chapter of this research work. Literature review showed a number of empirical studies on demonstration and discovery methods on students' performance in financial accounting.

The study population were sampled from among Barewa College students in Kaduna state. The data collected were presented in table in line with the objectives and research questions of the study. The null hypotheses were tested using Paired sample t-test and Analysis of Variance (ANOVA) at 0.05 level of significance as well as compare their mean differences in other to ascertain the degree or extent to which certain assumption would be accepted or disproved. The summary of the major findings are presented below:

1. Demonstration method of teaching financial accounting has positive effect on the academic performance of secondary school students in Kaduna State.

2. Discovery method of teaching Financial Accounting has less effect on the academic performance of secondary school students in Kaduna State.

3. From the study, it was discovered that students perform better in demonstration method than when discovery method of teaching is used to teach Financial Accounting.

4. It was also found that there was significant difference from the performance of students when taught using Demonstration, Discovery and Lecture methods of teaching Financial Accounting at the secondary school level.

5.2 Conclusion

Having reviewed the performance of studentsin Financial Accounting in the selected schoolfor the study using demonstration, discovery and lecture methods of teaching Financial Accounting the researcher hereby concluded that both demonstration and discovery methods of teaching have positive effect on the performance of students in Financial Accounting. However, Demonstration method has more positive effect on students' academic performance than discovery method as compared to lecture method. Since this is the case, adoption of demonstration method of teaching financial accounting will reduce failure rate in O'level WASSCE and NECO examinations. This will ensure that many of the candidates can secure admission into higher institutions and make accounting their career.

5.3 Recommendations

The study recommended the following based on the results of analysis and findings as discussed.

1. Kaduna State Government and Secondary School authorities should encourage their teachers to adopt the use of Demonstration methods in teaching Financial Accounting by organizing workshops and seminars for them.
2. Discovery method has less effect in teaching Financial Accounting. Only qualified and experienced Accounting teachers should adopt it were necessary in teaching the subject.
3. The difference between the effect of the two methods shows that only Demonstration method is the best for teaching Financial Accounting.

4. Availability of learning resources and provision of adequate learning environment should be made available so as to help improve the performance of students.

5.4 Suggested Areas for Further Studies

Other topics recommended for further studies include:

1) The relationship between the qualification of an Accounting teacher and the effect of some selected methods of teaching Financial Accounting at the Senior Secondary School level.
2) Evaluation of the effectiveness of Discovery method of teaching financial accounting at both the secondary and tertiary levels to determining at which level it is more effective.
3) Effectiveness of some selected methods of teaching in relation to a particular level of education. A study of primary schools in Kaduna State.

REFERENCES

Abubakar, A.A and Dantani, Y. S (2005). *Fundamental Issues in Teachers Preparation*: Kaduna Effective Media Service, PD 12 Ibrahim Taiwo Road, Kaduna

Adeyanju, G.A (1996) *Creativity: Learning and Learning Styles*. Isola and Sons, Box 5004, S/Gari, Zaria.

Afe, I. O (1997) Techniques of effective teaching. Being a paper delivered during the refresher course for teachers of the Ministry of Education Office, Mainland Local Government Area of Lagos state on 2nd Dec., 1997.

Aggarwal, J.C. (2009). Principles, *Methods and Techniques of Teaching*. Second Revised Edition. Vikas Publishing House: PVT Ltd, New Delhi, China, Pp 35 – 245.

Alfieri, L., Aldrich, N.J., Brooks P.J., Tenenmaum H.R (2001). Does discovery based instruction enhance learning? *Journal of Educational Psychology*, 103 (1).1 -18.

Aliyu, M. M (2006). *Subject Method for Business Teachers*. More Hope (Nig) Enterprises, Ilorin, Nigeria, Pp. 37 – 47.

Awen, B.I (2008) An Empirical Assessment of Financial reporting and it'sRegulation in Nigeria. *Journal of VocationalEducation (JOVED)*. Vocational and Technical Education, F.C.E, Zaria. Vol. 2 (1) Pp 80 – 88.

Ayis, N. N (2010). The role of Teachers in the implementation of National policy on education in the 21st century, *Zaria Educator Journal*, Vol5(1) pp 44 – 48 pub "Association of Nigerian educators.

Banks, J. A and Clegy, A.A (1977). Teaching strategies for social studies inquiry, valuing and decision-making, reading: Addition Wesley Publishing Company.

Becklund D.J and Karpinen, R.T (1970).*A local Approach to Accounting Theory and Practice*. University Press, Abu, Zaria.

Bello, T.Y. (1981). *Basic Principles of Teaching*. Thomson Press Ltd, India, Printed in U.S.A.

Branthinger, A (1997). "Using Ideology: Cases of Non-recognition of the Politics of research and practice in special education". *Review of Educational Practice*. Chem. Education research 67 (4): 425 – 459.

Brown, B.W (1985) *Curriculum and Instruction*, London, Macmillan Press.

Bruner, J. (1961). "The act of discovery" *Harvard Educational Review*. 31 (1): 21 – 32.

Cashin, K. (1990). Teaching Strategies Retrieved August 16th, 2014, From http://en.wikipedia.org/wikicomprativeresearch.

Cascone, A.L (1997). Teaching Strategies Retrieved August 15th, 2014 from http://www.gmu.edu/factsstaff/parttimeystrategy.html

Chanhan, S.S (1980), *Advanced Educational Psychology*, India, Vikas Publishers.

Dean, D. Jr. and Kuhu, D. (2006). "*Direct Instruction Vs Discovery: The long view*". Science Education. 91 (3): 384 – 397.

Duru, B. c (2010), Total Quality Management in Primary Education; an imperative for Sustainable National Development.*Zaria Educator Journal*Vol 5 (1).

Ezewu, E. C (1997) Principles and Method of Continuous Assessment in the 6 – 3 -3 – 4 system of education in "the teacher's role in the new system of education", Lagos publication of the Ministry of Education Office, Mainland Local Government.

Farant, J.S (1980) *Principles and Practice of Teaching*, Longman.

Fetyok, D.F (1980) Financial Accounting Concepts and Principles, Boston,Massachusetts, Kent's publishing Company.

Hendrson, E.S (1965). *Accounting Theory*. Richard D Twin, Inch Homewood Illinois.

Imarhiagbe, K.O (2003). *Instructional Methodology, Principles and Practice of Vocational Education*. Frontline Print & Publishers. Asaba, Nigeria.

Kegan, J.L (1965). *The Discovery Method in Social Studies*. New York Winston Inc.

Kerlinger, F. N (1977) *Foundation of Behavioural Research* (2nd Ed) New York, Rinechart and Winston pp 10 – 47.

Kim, K. Bonk, C.J., and Teng, Y, (2009). The Present State and Future Trends of Blended Learning in Workplace Learning across five countries. *Educational Research Institute*.Sceol National University – Seoul Korea.

Kundu, C.I and Tutoo, D.U (1988). *Educational Psychology*, India Sterling Publishers PVT Ltd.

Lee, G.M. (1999). https://www.washington.edu/doit/N/types.html retrieved on 20th February, 2013.

Living stone, J. M. W (2010).The use of social studies teaching strategies for gifted children education to foster National Development.*Zaria Educator Journal*, Association of Nigerian Educators. Vol 5 (1).

Longman Dictionary of Contemporary English. Fifth edition. Chambers English Dictionary.

Makah M.S, Isa, S and Atiku, S (2010) "Multi-dimensional Role of Teaching in Promoting School Academic Excellence through interpersonal relationship. *Journal of Assess of Nigerian Educators*, Vol. 5, Pp 64 – 69.

Mary, N.L (1996). *Principles and Methods of Teaching*.Application to Women.

Matulick, S. and Heitger, L.E (1985).*Financial Accounting*, Second Edition, Mc Grand-Hill Book Company New York.

Merlot, Pedagogy (2009). Teaching Strategies. Retrieved August 16th 2014, from http://www.merlot.org/merlot/materials.html.

Mukherjee, A. (2002). *Educational Psychology for Teachers*, Students and Parents,S. Asekom and Co. Publishers, P.O box 15, Samaru – Zaria Nigeria.

National Policy on Education (2005) NERDE, Lagos. Published by Federal Government of Nigeria.

Nwodo, J.O (2006). An Investigation into the Effectiveness of Method of Teaching account in Secondary school in Lagos State. Book of reading of *Association of Business Educators of Nigeria* (ABEN) 1 (6) p 142 -155.

Nworgu, S. (1994). *Curriculum Foundation and Development for Nigerian Students*. Lagos Concept Publication, Pp 107 – 112.

Obani, T.C (2008). Lectures, students learning and performance "Quid Pro Quo"

Ojo, M.B. (2007). Differential of Effectiveness of Classroom Goal Structures among SS II students in Oyo State.An Med thesis submitted to Department of Science Education, Faculty of Education, University of Ibadan.

Okam, C.C (2002). *Teaching, issues, insights and problems in Social Studies Education in Nigeria*.Jos, Deka Publications.

Okejim, E.M. (2000). Accounting Education a means toward self-reliance, the National Accounting.

Okon, S.F. (1984). *Guidance for 6-3-3-4 System of Education*, Zaria. Institute of Education, Ahmadu Bello University, Zaria.

Okorie, J. (2001) *Fundamental of Teaching Practice*, Enugu, forth edition.

Okwuosa, I. (2005) *Advance Financial Accounting Manual*, Published by Arnold consultant Ltd.

Oladepo, S.A (1991). Innovation in Business Education Curriculum by the year 2000, *Business Education Journal* Vol. 11 (3).Nigerian Association of Business Educators.

Olauiwola O.A (2007) *Procedure in Educational Research*, Kaduna HanijamPublishers, Kaduna.

Olaitan, S.O and Agusiobo, O.N (1991) *Principles and Practice of Teaching*.NewYork John Wiley sons.

Omodara, A.A (2012). Comparative Analysis of the Effectiveness of Some Teaching Methods in Skill Acquisition by Agricultural Students in Colleges of Education in Kaduna State – Nigeria. An M.Sc. Thesis in Department of Vocational and Technical Education, Ahmadu Bello University, Zaria.

Onwukwe, V and Ezemoyih, C.M (2012).Effects of Demonstration Method, Electronic Media and Lecture Methods on Students' interest in Accounting Education, *Association of Business Educators of Nigeria (ABEN)* Journal Vol. VIII (2) Pp 280 – 289.

Reece, I. Walker, S. (1994). *A Practical guide to Teaching and learning*,2nd Ed. Business Education Publishers Ltd, Nigeria.

Rufai, R (2011) WASSCE and NECO Results: We are sitting on a time bomb. *Daily Trust*, Wednesday, December, 14th.

Schacter, D.L., Gilbert, T.O. & Wegner D.M. (2009).*Psychology*, 2ndEdtion, North Publishers.

Sidebotham, R. (1970). *Introduction to the Theory and Context of Accounting Pergamum*, London.

Stuart, A (1997) *Student Centered Learning*, Longman 26 Pp 53 – 56.

Umar R.T (2006). Comparative Analysis of Exposition and Inquiry Methods of Teaching Financial Accounting in Senior Secondary School in Kaduna State. Med Thesis in Department of Vocational and Technical Education, ABU, Zaria.

Ummunna, P. L. (1992). Accounting Education as a Veritable tool for effective financial management and survival in Business organizations. *Journal of Association of Business Educators of Nigeria,* Vol. IV, No 3 Pp 60 – 65.

Universal Basic Education Board (UBEB, 2008). Refresher Workshop Manual. Federal Teachers Scheme participants. Yalliam Press Ltd. Nigeria, Pp. 1 – 19.

Welsch, G.A and Anthony R.N (1981) *Fundamental of Financial Accounting*, third edition, Richard D Twin, Inc., Homewood, Illinios.

Appendix I

APPENDIX II

LESSON PLAN ON DEMONSTRATION METHOD

Subject:	Bookkeeping and accounts
Topic:	Final accounts of a sole proprietor
Class:	SS II
Number in Class:	20
Instructional method used:	Demonstration
Time/duration:	1 hour
Teaching materials:	(i) Text book; financial accounting Book 1 by Frank Frank Wood, (ii) Cardboard Paper (iii) Chalk board
Entry Behaviour/Previous Knowledge:	The teacher enquiries from the students the topics they have been taught and to determine how much of the concepts such as Trading Account, Gross Profit, Net Profit; they understand.
Behavioural Objectives:	At the end of this lesson, the students should be able to: (i) Tell the names of the accounts that make up final accounts

(ii) Identify the items that are posted to each account (i.e Trading, Profit and loss accounts).

(iii) Tell from the balances (Dr or Cr) whether the organization has made a profit or loss

(iv) Make correct entries in the final accounts by themselves.

(v) Tell what the balance sheet represents

Introduction: The teacher asks the students to name the accounts that comprises final accounts and when they are prepared.

Presentation in Steps:

Step I: The final accounts are: (i) Trading, Profit and loss accounts. It is usually prepared at the end of a trading period.

Step II: The trading and profit and loss accounts show the gross profit or loss and net profit or loss respectively.

Step III: The purpose of balance sheet is to determine the financial position of a business at a particular date. To show the value of capital, assets and liabilities at a particular date.

Step IV: Items/entries that are usually found in the final accounts are giveninthe format in Step V:-

Step V: The teacher copies this format on the board and asks the students to copyit.

JOB ENTERPRISES
Trading and profit and loss account for theYear ended 31st December, 2013

Dr	**₦**	**₦**		**₦**	**₦** **Cr**
Opening stock		X	Sales	X	
Purchases	X		Less sales returns	(X)	XX
Less Purchase Return	(X)				
	X				
Add Carriage inwards	X	X			
Cost of goods available for sale		**X**			
Less Closing Stock		(X)			
Cost of goods sold		**XX**			
Factor wages (if any)		X			
Cost of sales		**XX**			
Gross profit c/d		**XX**			
Salaries		X	Gross profit b/d	XX	
Rent and rates		X	Interest received	X	
Carriage outwards		X	Rent received	X	
Increase in provision for bad or doubtful debts		X	Commission received	X	
Depreciation		X	Discount received	X	
Discount allowed		X	Decrease in provision for bad debt	X	XX
Stationary		X			
Repairs		X			
Loan on interest		X			
All other miscellaneous expense		X			
Net profit c/d		**X**			
				XX	
					Xx
Total		**XX**	**Total**		

JOB ENTERPRISES

Balance sheet as at 31st December, 2013

Owner's Equity	**₦**	**₦**	**Fixed Asset**	**₦**	**₦**	**₦**
Capital 1st Jan.,2013		X	Land and building	X		
Additional capital introduced		X	Plant and machinery	X		
Net Profit		X	Furniture and fittings	X		
			Motor vehicle	X	XX	
Less drawings		(X)				
Long-Term Liabilities			Long-term investment		X	XX
Bank loans		X				
Current Liabilities			**Current Assets**			
Trade creditors	X		Stock		X	
Accrued expenses	X		Trade debtors	X		
Income received in advance	X		Less prov. For bad debt	(X)	X	
Bank overdraft	X	X	Short-term investment		X	
			Prepayment		X	
			Accrued incomes		X	
			Bank (bal.)		X	
			Cash (at office)		X	XX
		X X				**X X**X

Step VI: The teacher explains how all these items come about and why they are posted where they appear in the format.

Summary: The teacher mentions the major categories of the final accounts and reminds students what the bookkeeper and the owner of the business are interested in seeing in the books.

Conclusion: The final accounts reveal the profit and loss of a business in a given period and the net value of assets and liabilities for the period.

APPENDIX III

LESSON PLAN ON DISCOVERY METHOD

Subject:	Bookkeeping and Accounts
Topic:	Final accounts of a sole proprietor
Class:	SS II
Number in Class:	20 students
Instructional Method Used:	Guided discovery method
Time/duration:	1 hour
Teaching materials:	(i) Text book a. Financial Accounting Book 1 by Frank Wood. b. Principles of Accounts Book 1 by J.S Etuk-udo (ii) Foolscap sheets for all students (iii) Chalk (iv) Cardboard paper
Entry Behaviour/Previous Knowledge:	(a) The teacher requests the students to write on foolscap paper 5 topics other teachers have taught them. (b) The accounts that make-up final accounts. (c) Students are grouped into four (4) with a leader and asked to write down all expense items on the

debit side and all income items on the credit side of each a/c identified by them.

(d) The groups are asked to exchange their scripts with other groups for correction.

Behavioural Objectives: At the end of this lesson, the students should be able to:

(i) Name all the accounts that constitute final accounts of a sole proprietor.

(ii) Tell when final accounts are prepared

(iii) Tell whether Dr or Cr items increase or decrease the chances of making profit or loss.

(iv) Make correct entries in the final accounts

(v) Tell what a balance sheet is.

Introduction: (i) The teacher asks each leader in the four groups to name the accounts that make up the final accounts they earlier on wrote down and what added them to solve the problem.

(ii) The teacher corrects each group's work with remarks.

Presentation in Steps:

Step I: The final accounts are trading, profit and loss accounts. It is usually prepared at the end of a trading period.

Step II: Trading account section shows the gross profit or loss while profit and loss section shows the net profit or loss for the period.

Step III: The purpose of balance sheet is to show the value of assets and other liabilities at a particular date.

Step IV: Items/entries that are usually found in the final accounts are given in the format below in step V.

Step V: The teacher copies this format on the board and ask the students to copyit.

JOB ENTERPRISES
Trading and profit and loss account for theYear ended 31st December, 2013

Dr	**₦**	**₦**		**₦**	**₦** **Cr**
Opening stock		X	Sales	X	
Purchases	X		Less sales returns	(X)	XX
Less Purchase Return	(X)				
	X				
Add Carriage inwards	X	X			
Cost of goods available for sale		**X**			
Less Closing Stock		(X)			
Cost of goods sold		**XX**			
Factor wages (if any)		X			
Cost of sales		**XX**			
Gross profit c/d		**XX**			
Salaries		X	Gross profit b/d	XX	
Rent and rates		X	Interest received	X	
Carriage outwards		X	Rent received	X	
Increase in provision for bad or doubtful debts		X	Commission received	X	
Depreciation		X	Discount received	X	
Discount allowed		X	Decrease in provision for bad debt	X	
Stationary		X			
Repairs		X			
Loan on interest		X			
All other miscellaneous expense		X			
Net profit c/d		X			
Total		**XX**		**XX**	
			Net Profit b/d	XX	

JOB ENTERPRISES

Balance sheet as at 31st December, 2013

Owner's Equity	₦	₦	**Fixed Asset**	₦	₦	₦
Capital 1st Jan.,2013		X	Land and building	X		
Additional capital introduced		X	Plant and machinery	X		
Net Profit		X	Furniture and fittings	X		
			Motor vehicle	X	XX	
Less drawings		(X)				
Long-term liabilities			Long-term investment		X	XX
Bank loans		X				
Current liabilities			**Current Assets**			
Trade creditors	X		Stock		X	
Accrued expenses	X		Trade debtors	X		
Income received in advance	X		Less prov. For bad debt	(X)	X	
Bank overdraft	X	X	Short-term investment		X	
			Prepayment		X	
			Accrued incomes		X	
			Bank (bal.)		X	
			Cash (at office)		X	X
Total		**X X**	Total			**X XX**

Step VI: Students are told to copy this format as many times as possible and to tell how many times they copied before they could identified specific entries in different accounts.

Step VII: The teacher will explain how all these items come about and why they are posted where they appear in the format.

Summary: The teacher mentions the major categories of the final accounts and reminds students what the bookkeeper and the owner of the business are interested in seeing in the books.

Conclusion: The final accounts reveal the profit and loss of a business in a given period and the net value of assets and liabilities for the period.

APPENDIX IV

PRE-TEST

Financial Accounting Intelligence Test 1

FAIT – 1

Instruction: (i) Answer all question in this test

(ii) Fill-in-the gap with one correct answer from the four

(4) items against each question.

1. …….. is a subsidiary book as well as a ledger (i) control account (ii) cash book (iii) balance sheet (iv) bookkeeping.
2. ……. Belongs to the personal ledger (i) Purchase account (ii) Capital account (iii) Machinery account (iv) Habu's account
3. Net profit will be posted to the …….account (i) company's account (ii) proprietor's account (iii) expenses account (iv) gross profit
4. Discount received is an ..……. (i) income (ii) expense item (iii) payment in advance (iv) accrued expense
5. The concept of double entry states that…… (i) for every debit entry there must be a corresponding debit entry (ii) for every debit entry there must be a corresponding credit entry (iii) for every seller there must be a buyer (iv) value must be the same value received
6. The difference disclosed in the trail balance is normally posted to ……. (i) an adjustment account (ii) a control account (iii) a suspense account (iv) trading account

7. ……. Is not a method of calculating depreciation. (i) straight line (ii) insurance policy (iii) diminishing balance (iv) reducing balance.
8. In simple terms profit is the excess of selling price over _____

   (i) Net Gain (ii) Sales (iii) Cost Price (iv) Purchases

9. Goods for sale purchased during a given trading period is added to _____ (i) Gross Profit (ii) Opening Stock (iii) Withdrawal

   (iv) Returns
10. Electricity bill pre-paid means (i) paid in arrears (ii) Bill paid before it is due (iii) owing (iv) bill paid to debtors.
11. A trail balance is …….

    (i) A list of balances extracted from the ledger accounts

    (ii) Totals of all accounts

    (iii) Lists of all trading account

    (iv) List of the profit
12. ……. Error affects the trail balance (i) commission (ii) omission (iii) principle (iv) lone entry
13. …… is used for recording purchases returns (i) sales day book (ii) cash book (iii) returns inward book (iv) returns outward book

    Stock is N200 at start and N320 at close, purchases is N2,055 and sales N3186
14. The value of goods available for sale will be ……. (i) N2,255 (ii) N2,055 (iii) N1,935 (iv) N3,186

15. The cost of good sold is ……. (i) N3,186 (ii) N2,866 (iii) N1935 (iv) N3,350

Answer questions 14 and 15 from the following information:

16. The account that shows both the cash and bank transactions of an enterprises is called (i) appropriation account (ii) trading account (iii) cash book with bank column (iv) petty cash
17. ……. Is the art of recording transaction in books of account (i) debiting (ii) bookkeeping (iii) auditing (iv) data
18. …….. is an income (i) discount allowed (ii) discount received (iii) prepayment (iv) expenses
19. Bad debt is a debt that cannot be recovered (i) True (ii) Bad expenses (iii) long term debt (iv) a debt for only one year
20. ……. Is not a unit of the computer (i) console (ii) Output (iii) control (iv) input
21. …….. is an example of a direct expense (i) Royalties (ii) Carriage inwards (iii) carriage outwards (iv) manufacturing wages
22. The total of sales journal is entered on the ……..

(i) Debit side of sales account

(ii) Debit side of cash account

(iii) Credit side of sales account

(iv) Credit side of cash account

23. The sum of money given to a petty cashier out of which small payments are made is a/an ……. (i) float (ii) Bonus (iii) advance (iv) loan

24. An expense is termed accrual because it ……. (a) is yet to be paid (ii) is a profit and loss account item (iii) is a trading account item (iv) must appear in the balance sheet

25. Two column cash book contains columns ……. For (i) cash and bank (ii) cash, assets and liabilities (iii) discount, cash and bank (iv) cash, bank and returns.

APPENDIX V

ANSWERS TO PRE-TEST

Financial Accounting Intelligent Test I

1. (ii) Cash book
2. (iv) Habu's account
3. (ii) Proprietor account
4. (i) Income
5. (ii) For every debit entry there must be a corresponding credit entry
6. (iii) A suspense account
7. (ii) Insurance
8. (iii) Cost Price
9. (ii) Opening Stock
10. (ii) Bill paid before it is due
11. (i) a list of balances extracted from the ledger account
12. (iv) Lone entry
13. (iv) Returns outward
14. (i) N2,255
15. (iii) 1,935
16. (iii) Cash book
17. (ii) Bookkeeping
18. (ii) Discount received
19. (i) True

20. (i) Console

21. (iv) Manufacturing wages

22. (i) Debit side of cash account

23. (i) Float

24. (i) Is yet to be paid

25. (i) Cash and bank

(2 Marks each for every correct answer:Total= 50 marks)

APPENDIX VI

POST –TEST

FINANCIAL ACCOUNTING ACHIEVEMENT TEST – 2 (FAAT-2)

PART A

OBJECTIVE QUESTIONS

INSTRUCTION: Answer all questions circle the correct answer from the options provided.

1) Which of the following is the book of original entry for all payments and receipts whether by cash or cheque? (a) sales day book (b) purchase day book (c) cash book (d) cheque book

2) Which of the following fixed asset is not depreciable? (a) building (b) tools (c) land (d) furniture

3) The purpose of a trading account is to ascertain (a) sales (b) gross profit (c) net profit or loss (d) appropriate profit

4) The balance sheet is a statement showing (a) all assets and liabilities (b) all business (c) credit entries of the business (d) capital and liabilities.

5) Impersonal accounts contain (a) real and capitals (b) capital and nominal accounts (c) real and nominal accounts (d) interest receivable and real accounts.

6) The art of collecting, recording, presenting and interpreting accounting data is (a) cost accounting (b) management accounting (c) financial accounting (d) auditing

7) The chief accounting officer of Nigeria is called (a) Auditor general (b) chief accountant (c) treasurer (d) accountant general

8) Which of the following does not lead to depreciation of assets? (a) wear and tear (b) passage of time (c) devaluation of naira (d) usage

9) Which of the following documents sets out the internal regulations of a partnership? (a) law (b) bleed (c) regulation (c) code

10) Which of the following date lines is correct for a profit and loss account? (a) for the year ended 31st December, 2013 (b) as at 31st December, 2013

11) The two fundamental books of accounts are (a) returns inwards and outwards (b) journal and ledger (c) discount allowed and received (d) credit note and debit note

Use the following information to answer question 12 to 14

Opening stock	4,000
Purchase	12,000
Sales	20,000
Closing stock	6,000
Returns inwards	1,000
Returns outwards	2,000

12) Cost of goods sold is (a) N8,000 (b) N10,000 (c) N12,000 (d)N6,000

13) The gross profit is (a) N5,000 (b) N10,000 (c) N11,000 (d)N4,000

14) What is the net sales (a) N20,000 (b) N15,000 (c) N9,000 (d)N19,000

15) When a transaction is completely left out from the books, it is an error of (a) commission (b) principle (c) compensation (d) omission

16) The document making a public offer for the sale of a company's share is (a) memorandum of association (b) article of association (c) prospectus (d) certificate of registration

17) Which of the following is the reason why a seller allows a customer cash discount (a) agreement to become a regular customer (b) introducing a new customer to the seller (c) settlement of account within a stated period (d) placing a large order.

18) When shares are sold 'at par' it means they are issued at (a) the market value (b) the normal value (c) a discount (d) a premium

19) Which of the following does not form part of shareholders fund? (a) ordinary shares (b) share premium (c) profit (d) debenture

20) Peter started business with N 50,000 cash. The accounting entry is debit (a) cash account and credit capital account (b) capital account, credit cash account (c) purchase account, credit cash account (d) expense account, credit capital account.

APPENDIX VII

MODEL ANSWERS TO POST- TEST

FINANCIAL ACCOUNTING ACHIEVEMENT TEST – 2 (FAAT-2)

PART A

1) C
2) C
3) B
4) A
5) C
6) C
7) D
8) C
9) B
10) A
11) B
12) A
13) C
14) D
15) D
16) C
17) C
18) B
19) D
20) A

(2 marks each for every correct answer: Total = 20 marks)

APPENDIX VIII

PART B

ESSAY QUESTIONS

SECTION A

THEORY OF FINANCIAL ACCOUNTING

Instruction: Answer one question only from this section.

Q1a) What is an account?

b) Explain the principle of double entry system.

c) In which books of prime entry would the following transactions be recorded?

i. A purchase on credit of goods for resale

ii. A cash purchase of a filling cabinet for office use

iii. Credit sales to a customer

(20 marks)

Q2)

a) State four advantages that an accounting system can derive from the application of the computer

b) List two outputs of the accounting information system

(20 marks)

Q3)

a) Explain the purpose of preparing each of the following:

   i. Trading account

   ii. Profit and loss account

   iii. Balance sheet

b) List four items each found in the asset and liability sides of the balance sheet of a sole proprietor.

(20 marks)

APPENDIX IX

MODEL ANSWERS TO FINANCIAL ACCOUNTING ACHIEVEMENT TEST – 2

(FAAT-2)

PART B

SECTION A

1a) An account is a summarized record of all transactions in the ledger that have taken place between a business and a person, firm or company. It usually occupies a page (or folio) in the ledger. The page is normally divided into two by a central vertical line. The left side being debit (Dr), records all values received while the credit side (Cr), records values given.**(7 marks)**

(b) The double entry principle states that for any debit entry there should be a corresponding credit entry. In other words this system of accounting requires that entries be made in the books to reflect the dual aspect of a transaction i.e. the account that receives benefit of a value is debited while the account giving the value is credited. **(7 marks)**

(c) i) Purchase day book/journal **(2 marks)**

ii) Cash book **(2 marks)**

iii) Sales day book/journal **(2 marks)**

(Total 20 marks)

2a) Advantage of computer in accounting system

(i) They are faster in preparing book of original entry **(3 marks)**

(ii) They are accurate **(2 marks)**

(iii) They improve the decision making process **(2 marks)**

(iv) They reduce the monotony of producing lengthy and uninteresting report with large amount of figures. **(2 marks)**

(v) Increase job satisfaction and effective use of operation time **(2 marks)**

(vi) It reduces labour and labour cost **(2 marks)**

b) Outputs of accounting information system

i) Profit and loss reports/account **(3 marks)**

ii) Balance sheets **(2 marks)**

iii) Cash flow statement **(2 marks)**

iv) Payrolls **(2 marks)**

v) Management information reports **(2 marks)**

vi) Stock records **(2 marks)**

(Total 20 marks)

Q3)

i. The purpose of preparing trading account is to determine the cost of goods sold and the gross profit/loss **(3 marks)**

ii. Profit and loss account; the purpose is to determine the net profit or net loss earned from all activities. **(3 marks)**

iii. Balance sheet: the purpose of balance sheet is to determine the financial position of a business at a particular date. It is to know the value of capital, assets and liabilities at a particular date. **(3 marks)**

b) **Asset Side:** (i) Land (iii) Building (iii) Premises (iv) Equipment (v) Furniture (vi) Motor vehicle (vii) Machinery **(1 marks for each correct items = 7 marks)**

Liability side: (i) capital (ii) net profit/loss (iii) drawing (iv) loans (v) trade creditors (vi) bank overdraft (vii) accrued expenses. **(1 marks for each correct items = 7 marks)**

(Total = 20 marks)

SECTION B

THEORY QUESTION

Yahaya Abdul is a Sole Trader, the Business Trail Balance as at 31st December, 2012 is given below:

Particulars	Dr. ₦	Cr ₦
Opening stock	3,000.00	
Capital account		22,000.00
Motor vehicles	3,000.00	
Purchases	36,000.00	
Sales		70,000
Debtors	39,370.00	
Creditors		6,000.00
Premises	8,000.00	
Cash	4,000.00	
Insurance paid	700.00	
Returns inwards	300.00	
Return outwards		500.00
Wages and salaries	1,600.00	
Transport expenses	130.00	
General Expenses	1,500.00	
Advertisement	1,400	
Discount received		500.00
Total	**99,000**	**99,000**

Note: Closing stock is N 4,000.00.

You are asked to prepare only Trading, profit and loss accounts for the year ended 31st December, 2012.

(20 marks)

MODEL ANSWER TO

THEORY QUESTION

YahayaAbdul, Trading, Profit and Loss accounts for the year ended 31st December, 2012. (1mk)

Dr **Cr**

	₦	₦		₦
Opening Stock		3,000 (1mk)	Sales	70,000 (1mk)
Add purchases	36,000 (1mk)		Less Returns Inward	(300) (½2mk)
Less returns outwards	(500) (½2mk)	35,500 (1mk)	Net Sales	69,700 (1mk)
Goodsavailable for sale		65000 (½2mk)		
Less Closing stock		(4,000) (1mk)		
Cost of goods sold		61,500 (1mk)		
Gross Profit c/d		8,200 (1mk)		
		69,700 (½2mk)		69,700 (½2mk)
Insurance paid		700 (½2mk)	Gross Profit b/d	8,200 (1mk)
Wages and salaries		1,600 (½2mk)	Discount received	500 (½2mk)
Transport expenses		130 (½2mk)		
General expenses		1,500 (½2mk)		
Advertisement expenses		1,400 (½2mk)		
Net profit c/d		3,370 (½2mk)		
		8,700 (1mk)		**8,700** (1mk)
			Net profit b/d	3,370 (1mk)

(Total = 20 marks)

APPENDIX IX

BAREWA COLLEGE ZARIA: TEST SCORES

DEMONSTRATION METHOD			DISCOVERY METHOD		LECTURE METHOD	
S/NO.	**Pre-test (100 marks) Exp1**	**Post-test (100 marks) exp2**	**Pre-test (100 marks) Exp1**	**Post-test (100 marks) exp2**	**Pre-test (100 marks) Exp1**	**Post-test (100 marks) exp2**
1	34.00	50.00	35.00	29.00	22.00	25.00
2	30.00	75.00	45.00	55.00	16.00	30.00
3	35.00	50.00	38.00	60.00	20.00	55.00
4	31.00	48.00	30.00	63.00	24.00	60.00
5	47.00	60.00	31.00	51.00	18.00	35.00
6	37.00	61.00	40.00	55.00	30.00	50.00
7	30.00	70.00	38.00	35.00	32.00	25.00
8	40.00	65.00	45.00	40.00	27.00	30.00
9	45.00	60.00	33.00	65.00	8.00	55.00
10	50.00	58.00	51.00	40.00	17.00	35.00
11	35.00	80.00	30.00	43.00	25.00	39.00
12	57.00	60.00	28.00	50.00	27.00	40.00
13	38.00	62.00	50.00	50.00	22.00	30.00
14	30.00	67.00	30.00	50.00	20.00	48.00
15	31.00	70.00	32.00	40.00	21.00	30.00