INFLUENCE OF GUIDED-DISCOVERY, LECTURE METHOD AND GENDER ON ACCOUNTING STUDENTS' PERFORMANCE IN COLLEGES OF EDUCATION IN SOUTH-WEST GEO-POLITICAL ZONE, NIGERIA

BY

ALABA OYESILE MORADEYO

DEPARTMENT OF VOCATIONAL AND TECHNICAL EDUCATION

AHMADU BELLO UNIVERSITY, ZARIA, NIGERIA

MAY, 2015

INFLUENCE OF GUIDED-DISCOVERY, LECTURE METHOD AND GENDER ON ACCOUNTING STUDENTS' PERFORMANCE IN COLLEGES OF EDUCATION IN SOUTH-WEST GEO-POLITICAL ZONE, NIGERIA

BY

AlabaOyesile MORADEYO, B.ED (ABU, ZARIA) 2011
MED/EDUC/20749/2012-2013

A THESIS SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY, ZARIAIN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF BUSINESS EDUCATION DEGREE

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

MAY, 2015

DECLARATION

I declare that the work in this Thesis entitled**Influence of Guide-discovery, Lecture Methodand Gender on Students' Performance in Accounting in Colleges of Education South-West Geo-Political Zone, Nigeria;**has been carried out by me in the Department of Vocational and Technical Education. The information derived from the literature has been acknowledged in the text and a list of references provided. No part of this thesis was previously presented for another degree or diploma.

_____

MoradeyoAlabaOyesile Date

CERTIFICATION

This Thesis entitled **INFLUENCE OF GUIDED-DISCOVERY, LECTURE METHOD AND GENDER ON ACCOUNTING STUDENTS' PERFORMANCEIN COLLEGES OF EDUCATION IN SOUTH-WEST GEO-POLITICAL ZONE, NIGERIA**by AlabaOyesile**MORADEYO** meets the regulations governing the award of Master of Business Education Degree of Ahmadu Bello University, Zaria, and is approved for its contribution to knowledge and literary presentation.

_____ _____

Dr. S. Ibrahim Date
Chairman, Supervisory Committee

_____ _____

Prof. A. A. Udoh Date
Member, Supervisory Committee

_____ _____

Prof. A. A. Udoh Date
Head, Departmentof
Vocational and Technical Education

_____ _____

Prof. A. Z. Hassan Date
Dean, School of Postgraduate Studies

DEDICATION

This thesis is dedicated to Almighty Allah. It is also dedicated to the following people:

1. Late Ademola OyelekeMoradeyo - Father
2. IdiatOyeronkeMoradeyo - Mother
3. IdowuAfolabi Moradeyo - Brother
4. Abdul-Aziz Babalola - Brother
5. MujidatBolanleAlamu - Sister
6. ZainabTitilopeAbeweela - Wife
7. HalimatAbeweela - Mother-in-law
8. Abdul-RahamonAbeweela - Father-in-law

ACKNOWLEDGEMENT

In the course of carrying out this research work, many people have contributed in one way or another. To all of them, theresearcher remains eternally appreciative. However, he specifically acknowledges the contributions of some individuals. The researcher offers sincere thanks and appreciation to the members of his supervisory committee – Dr.Sani Ibrahim and Prof. Abasido Antony Udoh for their untiring efforts, constructive criticism, advice and guidance throughout the period of writing this thesis. The researcher acknowledges the contributions of his internal examiners- Dr. D.O Oni and Dr. A. Guga for their valuable contributions to the work.

The researcher appreciates the assistance he received from the following people: Mrs.M.B Amoda Business Education Department, Tai-Solarin University of Education,Ijebu-Ode; Mr. A.D Oladeji; Mr. P.A Oluwafemi and M.B Fehintola Business Education Department,Alayande College of Education, Oyo; Mr. S.O Egbetokun,Business Education Department,AdeniranOgunsanya College of Education,Badagry;and Mr. M.A AdeosunBusiness Education Department, College of Education Ikere-Ekiti, for their support during the collection of data. His appreciation also goes to Mr.HabeebOdetola for his assistancein analyzing part of the data. The researcher recognizes the encouragement and assistance gotten from the following people: Balogun Halima, Mrs. Abeweela R.A,Mr. and Mrs. Onaolapo, Abdul-MoliqAbeweela, Seyi David, Hezekiah Samuel, SulaimanUsman, Dorcas, AfolabiAdemola, Musa Adedeji, Usman S. Ibrahim,Muhammod Ibrahim, Abdul-Rauf Yusuf and ShehuSakariyahufor making hisprogrammeeasier and fruitful.

The researcher’s appreciation goes to the members of Postgraduate Committee in the Department of Vocational and Technical Education for their valuable inputs in the course of writing thethesis. In addition, he is grateful to Dr T.J Adeshina, Prof. M.M Aliyu, Dr. R.T Umar, Dr. A. Ibrahim, Prof. A.Z. Mohammed, Prof. T.O Ojo, Prof. E. Ike, Dr. M.FAhuwan and other lecturersin the Department of Vocational and Technical EducationAhmadu Bello University, Zaria, for the academic encouragement.

Again the researcher would liketo acknowledge the encouragement from his friends, colleagues and members of his family during the period of the study. In this regard, his special appreciation goes to his loving and caring

mother,Mrs.MoradeyoI.O.for her prayers. May Almighty Allah give her long live to reap the fruit of her labour. The same gesture is extended to hisdearest,ZainabTitilopeAbeweela; thanks for being there.

Ultimately, the researcher is grateful to Almighty Allah, the Most High and the Beneficent, to whose mercy he attributes the successful completion of this work.

ABSTRACT

This research investigated the influence of guided-discovery, lecture methodand gender on the performance of business education students in principles of accounting in state Colleges of EducationSouth-West Geo-Political Zone, Nigeria, with a view to establishingwhetheror not guided-discovery, lecture teaching method and gender have influence on students' performance in Principles of Accounting. The study has four specific objectives, four research questions and four related null hypotheses. The target population comprised 6 colleges of education in south-west geo-political zone Nigeria with total population of 1764 while 64 students were used for the study as the sample. The instrument for the study comprised of Instructional Package for Principles of Accounting (IPPA) and Principles of Accounting Achievement Test (PAAT) were used for data collection. Pre-test and Post-test were administered to the sampled students. Table and frequency distribution were used in answering the research questions while t-test was employed in testing null hypothesesat 0.05 level of significance. Only one hypothesis was retained while the remaining three null hypotheses were rejected. Thefindings revealed that Guided-discovery teaching method was effective for teaching and learningPrinciples of Accounting in Colleges of Education. Therefore, it was concluded that Guided-discovery teaching method can enhance business education students' performance in Principles of Accounting. It was recommended that guided-discovery teaching method should be applied in teaching Principles of Accounting.

TABLE OF CONTENTS

Title Page -i

Declaration -ii

Certification - iii

Dedication - iv

Acknowledgements - v

Abstract -vii

Table of contents -viii

List of Appendices - xi

List of Tables - xii

Operational Definition of Terms -xiii

CHAPTER ONE: INTRODUCTION

1.1 Background to the Study - 1

1.2 Statement of the Problem - 4

1.3 Objectives of the Study - 6

1.4 Research Questions - 7

1.5 Research Hypotheses - 7

1.6 Significanceof the Study -8

1.7 Basic Assumptions of the Study -9

1.8 Delimitation of the Study - 10

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.1 Theoretical Framework - 11

2.2 Conceptual Framework - 24

2.3 Historical Development of Business Education in Nigeria - - - - - - - - - - - 29

2.4 Teaching Methods in Business Education -32

2.5 Historical Development of Accounting - 44

2.6 Accounting Concepts and Conventions - 45

2.7 Review of Empirical Studies -50

2.8 Summary of Reviewed Literature - 55

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Research Design -58

3.2 Population of the Study -58

3.3 Sample Size and Sampling Procedure - 59

3.4 Instrument for Data Collection - 60

3.4.1 Validity of the Instrument - 60

3.4.2 Pilot Study - 61

3.4.3 Reliability of the Instrument - 61

3.5 Procedure for Data Collection - 61

3.6 Procedure for Data Analysis - 62

CHAPTER FOUR: PRESENTATION AND ANALYSIS OF DATA

4.1 Analysis of Demographic Variables of Respondents - - - - - - - - - - - - - - - 64

4.2 Answers to Research Questions - 65

Research Question One - 65

Research Question Two - 66

Research Question Three - 67

Research Question Four - 69

4.3 Testing of Null Hypotheses - 70

Null Hypothesis One - 70

Null Hypothesis Two - 71

Null Hypothesis Three -72

Null Hypothesis Four -73

4.4 Summary of Major Findings - 73

4.5 Discussion of Major Findings - 74

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary - 77

5.2 Conclusions -79

5.3 Recommendations - 79

5.4 Suggestions for Further Study -80

REFERENCES -81

APPENDICES - 88

LIST OF APPENDICES

Appendix A: Letter of Introduction - 88

Appendix B: Lesson Plan on Guided- Discovery Teaching Method- - - - - -89

Appendix C: Lesson Plan on Lecture Teaching Method - - - - - - - - - - - - - - 91

Appendix D: Pre-Test - 93

Appendix E: Answers to Pre-Test - - - - - - -- 96

Appendix F: Post-Test -97

Appendix G: Answers to Post-Test - 99

LIST OF TABLES

3.1 Population of the Study - 59

3.2 Sample Size for the Study - 60

4.1 Distribution of Students by Gender - 65

4.2 Mean scores of pre-test and post-test of students taught with guided-discovery teaching method - 66

4.3 Frequency distribution and mean scores offemale students taught with guided-discoveryand those with lecture teaching methods - - - - - - - - - 67

4.4 Mean scores of post-test of business education male students taught using guided-discovery and lecture teaching methods - - - - - - - - - - - - - - - - - - - 68

4.5 Frequency distribution and mean scores of post-test of business education students taught with guided-discovery and lecture teaching methods - - 69

4.6 Test of Null Hypothesis One influence of guided-discovery on students' Performance in Principles of Accounting - - - - - - - - - -- - - - - - - - - - - - -71

4.7 Testing of difference between female students taught using guided-discovery and lecture teaching methods - 72

4.8 Testing of difference between male students taught using guided-discovery and lecture teaching methods - - - - - - -- - - - - - - - - - - - - - - -- - - -73

4.9 Test of Null Hypothesis four on difference between guided-discovery and lecture teaching methods on students' performance in principles of Accounting - 74

OPERATIONAL DEFINITION OF TERMS

Academic Performance: This is the successful accomplishment in particular course. It is how students are able to deal with their studies and how they cope with different tasks given to them by their individual teachers.

Guided-Discovery: This is the teaching method which involves guiding the students on the subject matter and getting answer to a specific question.

Principles of Accounting: This is a beginner's course for 100-level students in Business Education in all Colleges of Education.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Education is a veritable instrument for effecting positive change in the behaviour of citizens. National Policy on Education (2004) emphasizes the goals of education in Nigeria to include inculcation of the right type of values, attitudes, communication skills as well as life-long skills. These goals are attainable through effective classroom interaction. Interaction occurs between the teacher and the learner through the process of teaching and learning. Teaching, which is the primary function of a teacher, entails giving instruction, imparting knowledge, facts, skills, attitudes, interests, and aptitude. Modebelu (2007) defines teaching as an activity consisting of a body of actions and programmes planned and directed towards inculcating learning through conscious and deliberate efforts of the teacher. A teacher in this situation is expected to be a professional who consciously and deliberately utilizes his or her wealth of experience, skills, competencies, attitudes, interest and mastery of the subject matter to facilitate learning in students. The product of teaching is learning (acquisition of knowledge).

Before learners can imbibe the right skills and attitudes, teaching must be effective. Effective teaching according to Mkpa (2009) consists of four elements: Purposeful and planned teaching mastery of subject matter, display of conceptual-skills, and instructional materials. Mkpa (2009) opines that teaching method is the totality of all the strategies, techniques and ways that a teacher employs to maximize and facilitate classroom interaction. It is a means of conveying facts and decoding messages that eventually result in the realization of stated educational objectives. Teaching method is therefore the procedure, orderliness in planning and execution of teaching with an appropriate integration of instructional materials to achieve the objectives at the classroom level. There are several teaching methods that can be employed in the teaching and learning process: Lecture, demonstration, activity, peer teaching, play-way and guided discovery. Therefore, different teaching methods can be applied during teaching and learning financial accounting in order to make students learn better.

According to Asaolu (2002), "Financial Accounting is the process of recording, classifying, selecting, measuring, interpreting, summarizing and reporting financial data of an organization to the users for objective assessment and decision making". Accounting data are processed into accounting information through the use of accounting principles and conventions. The accounting principles are known as "Generally Accepted Accounting Principles". They are the basic fundamentals which guide accountants in recording, appreciating and assessing accounting information as well as the preparation and interpretation of financial statements. The accounting information system is proven, time honored, and its format is universally understood.

Books of accounts prepared by accountants in one part of the world are easily understood by their counterparts in other parts of the world because the information system is based on the principles that are widely accepted and globally used.

According to the National Commission for Colleges of Education (NCCE, 2012), the objectives of studying business education at Nigeria Colleges of Education are as follows: To produce well qualified and competent graduates in business education, produce N.C.E business teachers who will be able to inculcate the vocational aspects of business education into the society, to produce N.C.E business teachers who will be involved in the much desired revolution of vocational development right from primary and secondary schools, and to equip students with necessary competencies so as to qualify them for a post-NCE degree programmme in business education

In order to achieve the stated objectives by NCCE, business education teachers including Financial Accounting teachers employ various instructional methods in the classroom. According to Cantrell (2004), teaching methods are in a continuum, ranging from exposition to inquiry.

Lecture method known as conventional or traditional method of teaching is the oldest method of teaching, and it is traced to the middle Ages when highly prized Jewish teachers used it to impart learning. The Jewish learners through this method memorized everything the teacher said by heart to repeat, reproduce and regurgitate them almost verbatim when needed. Lecture method is the act of giving a long talk to a group of people on a subject matter within a specific time. It is popular in secondary schools and tertiary institutions. It is a typical teacher-centred method that may entail reading note. Modebelu and Duvie (2012) describe lecture method as a process by which teachers send information to students, projecting a one-way channel of communication model.

Guided discovery involves helping learners to discover certain facts or answer to a given problem. Learners most often depend on their teachers to provide all answers they need. Guided discovery also involves inquiry method that stimulates learner's interest in seeking information about ideas and concepts by asking questions. Guided discovery drills learners and enables them to search for knowledge in a systematic and logical way. Guided discovery promotes independent reasoning and self-reliance while the teacher guides, directs and re-directs which can lead the learner to the answers. Guided discovery is time consuming and expensive but helps learners to develop skills of observation, exploration and questioning. Guided discovery promotes active participation, team work cooperation and tolerance among learners (Modebelu and Duvie, 2012).

Academic performance refers to what students achieve in their studies and how they cope with or accomplish different learning experiences given to them by their teachers. Ibrahim (2011) reported that in educational institutions, success is measured by academic performance, or how well a student meets the standards set out by the

institution. South-West geo-political zone of Nigeria consists of six states. These are: Ekiti, Lagos, Ogun, Ondo, Osun and Oyo States. Each state have at least a state college of education expect Ondo State which has a Federal College of Education. All the described variables constituted the background against which this current study was conducted with regard to the influence of guided-discovery, lecture method and gender on students' performance in Principles of Accounting in state colleges of education in the South-West Geo-Political Zone in Nigeria.

1.2 Statement of the Problem

Financial accounting is one of the important aspects of business education curriculum at both secondary school level and tertiary institutions, colleges of education inclusive. According to Ogunu (2000), students taught Financial Accounting at senior secondary school and N.C.E level found Principles of Accounting difficult to understand due to the ineffective teaching methods employed by their teachers. Akintelure (1998) observes that, Financial Accounting teachers' effectiveness in instructional delivery depends on their consideration of the nature of subject during instructional planning. According to Akintelure (1998) Financial Accounting is not a subject that can be mastered by mere memorization of the basic rules and principles. It requires total involvement of the learner in the learning process, sound theoretical knowledge and intensive practice in application of basic principles. To what extent financial accounting teachers use these principles to teach financial accounting is yet to be determined.

Ogunu (2000) reports that, poor academic performance in Financial Accounting has been identified as a problem in Nigeria secondary schools and tertiary institutions. For example, an analysis of the result of the examination conducted by the West African Examination Council (2000) revealed that of the percentage of candidates who sat for West Africa Senior Secondary Certificate Examination in 1998, 1999 and 2000, 52.8%, 58.38% and 51.21% respectively recorded failure in Financial Accounting. Also, based on the data collected from the college visited by the researcher, analysis of students' performance for five years were as follows: In 2005, 54.2% failed; in 2006, 50.6% failed; in 2007, 59.0% failed; in 2008, 56.5% failed and in 2009, 57.54% failed (Emmanuel Alayande College of Education's statement of results).

The weakness in students' performance in Principles of Accounting at the N.C.E 100 level as observed by Uwamaiye and Ogunbameru (2005), in their studies revealed that the constant use of lecture method was one of the major factors that contributed to students' poor performance in Principles of Accounting. Thus the persistent poor performance in Principles of Accounting at N.C.E level needs to be addressed. One way to do this is to employ an activity-based method of instruction such as discovery method which allows active students' involvement. This type of study is needed in order to see whether students' performance in Principles of

Accounting at N.C.E level could be improved upon when guided discovery method of teaching is employed rather than lecture method. Therefore, this is the problem which this study has had addressed by assessing the influence of guided discovery, lecture method and gender on business education students' performance in Principles of Accounting in State Colleges of Education South Western Zone, Nigeria.

1.3 Objectives of the Study

The major objective of the study is to assess the influence of guided discovery teaching method when compared with lecture method and gender on accounting students' performance in State Colleges of Education South-West Geo-Political Zone, Nigeria. The specific objectives of the study are to:

1. determine the influence of guided-discovery teaching method on performance of business education students in Principles of Accounting in Colleges of Education.
2. determine the difference between the performance of the female students taught principles of accounting using guided-discovery teaching method and those taught using lecture method.
3. assess the difference between the performance of the male students taught principles of accounting using guided discovery teaching method and those taught with lecture teaching method in Colleges of Education.
4. compare the differences between the performance of students taught using guided discovery and lecture teaching methods in principles of accounting in Colleges of Education.

1.4 Research Questions

The following questions are answered in the study:

1. What are the differences between pre-test and post-test mean score performance of students taught principles of accounting using guided-discovery method of teaching in Colleges of Education?

2. What are the differences between the performance of the female students' taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method in Colleges of Education?
3. What are the differences between the performance of the male students taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method in Colleges of Education?
4. What are the differences in the performance of students taught principles of accounting using guided-discovery and those taught with lecture teaching methods?

1.5 Research Hypotheses

The following null hypotheses are formulated and tested with appropriate statistics at 0.05 level of Significance.

1. There is no significant difference between the pre-test and post-test performance of students taught principles of accounting using guided-discovery teaching method.
2. There is no significant difference between the performance of female students taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method.
3. There is no significant difference between the performance of male students taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method.
4. There is no significant difference between the performance of business education students taught using guided-discovery and lecture teaching methods in Principles of Accounting in Colleges of Education.

1.6 Significance of the Study

The following will benefit from the study: Government, parents, students, lecturers and school administrators: Government invests heavily in education,

especially at the tertiary level. Therefore when students' performance is enhanced, through effective teaching methods, it means government's heavy investment is justified.

Society will benefit from the result of this study, as the students are part of the larger society. Therefore, anything that affects the students is of interest of the society. When students graduate and get employed, they contribute to the development of the country's economy and the society at large.

Parents will to benefit from the result of this study because the performance of their children is a priority for them. Parents care about and are interested in their children's performance because they believe good academic results will provide a good career and better job opportunities.

School administrators, interested in fostering good academic habits for the same reason, are also often influenced by concerns about their reputation and the possibility of financial aid from government institutions and other Non-Governmental Agencies which can uplift the overall academic performance of their schools.

Through publication and seminars, the result of the study will be made available to lecturers in tertiary institutions who will find it useful. It would make their teaching job not only easier but interesting as they applied the research outcome to aid effective teaching and learning process.

Finally, the study is expected to be useful for students in tertiary institutions because, when lecturers apply the effective teaching methods the performance of business education students is likely to improve which consequently will reduce 'poor performance in Principles of Accounting in Colleges of Education in South West Geo-Political Zone, Nigeria.

1.7 Basic Assumptions of the Study

In this study, the following assumptions were made that:

1. Guided-discovery teaching method can improve students' performance in Principles of Accounting.
2. Guided-discovery teaching method can improve performance of both female and male business education students in Principles of Accounting.
3. Guided-discovery and lecture teaching methods can improve performance of business education students.

1.8 Delimitation of the Study

The study was delimited to 100 level business education students in six state Colleges of Education in South-West Geo-Political Zone, Nigeria. Among the six state Colleges of Education, the study is delimited to only Emmanuel Alayande College of Education, Oyo.

Also, the study was delimited to only one college of education in order to eliminate the entire intervening variables that might affect the study such as peer-group, instructional materials, environment and lecturers.

The research study was delimited to Principles of Accounting which is a core subject for all 100 level students in the institution. The study was also delimited to Guided-discovery, lecture teaching methods and gender. Finally the study was delimited to second semester, specifically depreciation and bank reconciliation accounts because they were part of the topics to be taught in second semester. Also the students would have been taught double entry principle and trading account in the first semester as well as depreciation and bank reconciliation accounts involved the application of double entry principles which could also be applied with their previous knowledge.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This chapter reviews literature related to the study based on the following sub-headings:

2.1 Theoretical Framework
2.2 Conceptual Framework
2.3 Historical Development of Business Education in Nigeria
2.4 Teaching Methods in Business Education
2.5 Historical Development of Accounting
2.6 Accounting Concepts and Conventions
2.7 Empirical Studies
2.8 Summary of the Reviewed Literature

2.1 Theoretical Framework

There are a number of theories relating to teaching and learning process but for the purpose of this study Constructivism theory is discussed because it is based on experimental learning through real life experience to construct and conditionalize

knowledge. It is problem based adaptive learning that challenges faulty schema, integrates new knowledge with existing knowledge, and allows for creation of original work or innovative procedures. According to Clark and Ellen (2006), Constructivism influences Instructional theory by encouraging discovery learning, hands-on learning, experiential learning, collaborative learning, project-based learning, and task-based learning. The purpose of education is to become creative and innovative through analysis, conceptualizations, and synthesis of prior experience to create new knowledge. The educator's role is to mentor the learner during heuristic problem solving of ill-defined problems by enabling quested learning. The learning goal is the highest order of learning: Heuristic problem solving, metacognitive knowledge, creativity, and originality that may modify existing knowledge and allow for creation of new knowledge

Constructivist epistemology, as a branch of the philosophy of science, offers an explanation of how human beings construct knowledge from information generated by previous experiences (heuristic knowledge). It has roots in cognitive psychology and biology and is an approach to education that lays emphasis on the ways knowledge is created while exploring the world. Therefore constructivism as a learning theory can be applied in teaching and learning principles of accounting.

Approaches based on constructivism stress the importance of mechanisms for mutual planning, identifying learner's needs and interests, a cooperative learning climate, sequential activities for achieving objectives, and then the formulation of learning objectives based on the diagnosed needs and interests. Some strategies for cooperative learning include reciprocal questioning, where students work together to ask and answer questions, where students become "experts" on one part of a group project and teach it to the others in their group, as well as in structured controversies where students work together to research a particular controversy. A premise of constructivism is the ability to construct person-centered messages to accomplish one's goal. Kim (2005) explained that a person-centered message is a "tailor-made message for a specific individual and context." If one is able to carry through with their person-centered message then they are able to manipulate their original message in mind and adjust it to whatever level the person they are talking to will best understand it. Problem-based learning follows a constructivist perspective in learning since the role of the instructor is to guide and challenge the learning process. Students learn about a subject through the experience of problem solving. It is important to achieve the right balance between the degree of structure and flexibility that is built into the learning process. Learners should learn to discover principles, concepts, and facts for themselves. Learning is viewed as active, where guesswork and intuitive thinking are encouraged. Learners with different skills and backgrounds are encouraged to collaborate in tasks and discussions to arrive at a shared understanding of the truth. Students also learn by teaching.

Historical and Theoretical Root of Constructivism

There are multiple strands of the Constructivist epistemology. Two of these strands, Cognitive constructivism and Social constructivism, are different in emphasis but they share common perspectives about teaching and learning. Before looking at the differences between cognitive and social constructivists, it might be worthwhile to look at what they have in common. Kanselaar (2002) description of the general characteristics of constructivist learning environments is a succinct summary of the constructivist perspective. Kanselaar proposed that there are eight characteristics that differentiate constructivist learning environments:

1. Constructivist learning environments provide multiple representations of reality.
2. Multiple representations avoid oversimplification and represent the complexity of the real world.
3. Constructivist learning environments emphasize knowledge construction instead of knowledge reproduction.
4. Constructivist learning environments emphasize authentic tasks in a meaningful context rather than abstract instruction out of context.
5. Constructivist learning environments provide learning environments such as real-world settings or case-based learning instead of predetermined sequences of instruction.
6. Constructivist learning environments encourage thoughtful reflection on experience.
7. Constructivist learning environments "enable context- and content-dependent knowledge construction."
8. Constructivist learning environments support "collaborative construction of knowledge through social negotiation, not competition among learners for recognition.

Jonassen's eight characteristics would be supported by both social and cognitive constructivists; however, there is a difference in the emphasis each strand places on the characteristic. According to Kanselaar (2002) John Dewey created an active

intellectual learning environment in his laboratory school, which existed between 1896 and 1904. The neuroscientist, James Zull, has argued that the sort of active learning Dewey fostered is the way people naturally learn. Active learning conditionalizes knowledge through experiential learning. Smith writes that John Dewey believed education must engage with and expand experience; those methods used in educating must provide for exploration, thinking, and reflection; and that interaction with the environment is necessary for learning; also, that democracy should be upheld in the educational process. Dewey advocated that the learning process of experiential learning through real life experience should construct and conditionalize knowledge, which is consistent with the Constructivists. Dewey re-imagined the way that the learning process should take place as well as the role that the teacher should play within that process. Kim stressed that the teacher should not stand at the front of the room doling out bits of information to be absorbed by passive students. Instead, the teacher's role should be that of facilitator and guide. As Kim (2005) explained it, the teacher is not in the school to impose certain ideas or to form certain habits in the child, but is there as a member of the community to select the influences which shall affect the child and to assist him in properly responding to them. Thus the teacher becomes a partner in the learning process, guiding students to independently discover meaning within the subject area.

John Dewey was actively and directly involved in setting up educational institutions such as the University of Chicago Laboratory Schools and The New School for Social Research. Many of Dewey's ideas influenced the founding of Bennington College and Goddard College where he served on the Board of Trustees.

Dewey's works and philosophy also held great influence in the creation of the Black Mountain College in North Carolina, an experimental college focused on interdisciplinary study. Faculty at the Black Mountain College included Buckminster Fuller, Willem de Kooning, Charles Olson, Franz Kline, Robert Duncan, Robert Creeley, and Paul Goodman (Kanselaar, 2002)

Maria Montessori's key points contribute to both Humanism and Constructivism. However, she emphasizes the value of experiential learning to conditionalized knowledge. Scientific observation has established that education is not what the teacher gives; education is a natural process spontaneously carried out by the human individual, and is acquired not by listening to words but by experiences from the environment. The task of the teacher becomes that of preparing a series of motives of cultural activity, spread over a specially prepared environment, and then refraining from obtrusive interference. Human teachers can only help the great work that is being done, as servants help the master. Doing so, they will be witnesses to the unfolding of the human soul and to the rising of a New Man who will not be a victim of events, but will have the clarity of vision to direct and shape the future of human society (Dogru and Kalender, 2007)

Montessori's beliefs are consistent with the Constructivists in that she advocates a learning process which allows a student to experience an environment first-hand; thereby, giving the student reliable, trust-worthy knowledge. While working with children in the *Casa dei Bambini* in 1907, Montessori began to develop her own instructional theory. The essential elements of her educational theory are described in *The Montessori Method* in 1912 and in *The Discovery of the Child* in

1948. Her method was founded on the observation of children at liberty to act freely in an environment that was prepared to meet their needs. Montessori came to the conclusion that the children's spontaneous activity in this environment revealed an internal program of development that an educator could enhance by removing obstacles to their natural development; thereby, providing opportunities for their natural development to proceed and flourish. Accordingly, the schoolroom was equipped with child-sized furnishings; included were practical life activities such as sweeping and washing tables, as well as teaching material developed by Montessori. Children were given the freedom to choose and carry out their own activities, at their own paces, and following their own inclinations. In these conditions, Montessori made a number of observations which became the foundation of her work. First, she observed great concentration in the children and spontaneous repetition of chosen activities. She also observed a strong tendency in the children to order their own environment, straightening tables and shelves, and ordering materials. As children chose some activities over others, Montessori refined the materials she offered to them. Over time, the children began to exhibit what she called "spontaneous discipline". David Kolb, in his books *Learning Style Inventory Technical Manual* and *Experiential Learning*, emphasizes the importance of conditionalized knowledge through experiential learning. David A. Kolb and Roger Fry created the Kolb & Fry Model out of four elements: Concrete experience, observation-reflection, the formation of abstract concepts, and testing in new situations. They represented these in the famous experiential learning circle (after Kurt Lewin). Kolb and Fry argue that the learning cycle can begin at any point, and that it should really be approached as a

continuous spiral. Kolb's beliefs are consistent with the Constructivists in that he includes Concrete Experience as part of the learning process and requires a student to test knowledge by acting upon the environment; thereby, giving the student reliable, trust-worthy [conditionalized] knowledge. The Kolb & Fry model complements other models and parallels research done by neuroscientist.

They suggested that the learning process often begins with a person carrying out a particular action and then seeing the effect of the action in this situation. Following this, the second step is to understand these effects in the particular instance, so that, if the same action were taken in the same circumstances, it would be possible to anticipate what would follow from the action. In this pattern, the third step would be to understand the general principle under which the particular instance falls.

Application of Constructivism

The type of learner is self-directed, creative, and innovative. The purpose in education is to become creative and innovative through analysis, conceptualizations, and synthesis of prior experience to create new knowledge. The learning goals are proficiency in higher-order cognitive functions: Heuristic problem solving, metacognitive knowledge, creativity, and originality. Constructivism not only acknowledges the uniqueness and complexity of the learner, but actually encourages, utilizes, and rewards it as an integral part of the learning process. Constructivism encourages the learner to arrive at his or her version of the truth, influenced by his or her background, culture, or embedded worldview. Historical developments and symbol systems, such as language, logic, and mathematical systems, are inherited by

the learner as a member of a particular culture and these life experiences influence a learner's schema.

Constructivism emphasizes the importance of the learner being actively involved in the learning process. Another crucial assumption regarding the nature of the learner concerns the level and source of motivation for learning. According to Dogru and Kalender (2007), sustaining motivation to learn is strongly dependent on the learner's confidence in his or her potential for learning. The belief in their own potential to solve new problems, feelings of competence, is derived from first-hand experience mastering problem solving, which is more powerful than any external motivator.

Hmelo-Silver, Duncan, & Chinn (2007) cite several studies supporting the success of the constructivist methods of problem-based and inquiry learning. They design a project called GenScope, an inquiry-based science software application. Students using the GenScope software showed significant gains over the control groups, with the largest gains shown in students from basic courses. Hmelo-Silver et al (2007) also cite a large study by Geier on the effectiveness of inquiry-based science for middle school students, as demonstrated by their performance in high-stakes standardized tests. The improvement was 14% for the first cohort of students and 13% for the second cohort. This study also found that inquiry-based teaching methods greatly reduced the achievement gap for African-American students. Guthrie et al. (2004) compares three instructional methods for third-grade reading: A traditional approach, a strategies-instruction-only approach, and an approach with strategies

instruction and constructivist motivation techniques including student choices, collaboration, and hands-on activities.

The constructivist approach, called CORI (Concept-Oriented Reading Instruction), resulted in better student reading comprehension, cognitive strategies, and motivation. Kim (2005) found that using constructivist teaching methods for 6th graders resulted in better student achievement than traditional teaching methods. This study also found that students preferred constructivist methods over traditional ones. However, Kim did not find any difference in student self-concept or learning strategies between those taught by constructivist or traditional methods. Doğru and Kalender (2007) compare science classrooms using traditional teacher-centered approaches to those using student-centered, constructivist methods. In their initial test of student performance immediately following the lessons, they found no significant difference between traditional and constructivist methods. However, in the follow-up assessment 15 days later, students who learned through constructivist methods showed better retention of knowledge than those who learned through traditional methods.

Criticism of Discovery Based Teaching Techniques

Several cognitive psychologists and educators have questioned the central claims of constructivism. It is argued that constructivist theories are misleading or contradict known findings. Mayer (2004) attempts to sketch the influence of constructivism in current mathematics and science education aiming to indicate how pervasive Aristotle's empiricist epistemology is within it and what problems constructivism faces on that account. In the neo-Piagetian theories of cognitive development it is maintained that learning at any age depends upon the processing and

representational resources available at this particular age. That is, it is maintained that if the requirements of the concept to be understood exceeds the available processing efficiency and working memory resources then the concept is by definition not learnable. This attitude toward learning impedes the learner from understanding essential theoretical concepts or, in other words, reasoning. Therefore, no matter how active a child is during learning, to learn the child must operate in a learning environment that meets the developmental and individual learning constraints that are characteristics for the child's age and this child's possible deviations from her age's norm. If this condition is not met, construction goes astray. Several educators have also questioned the effectiveness of this approach toward instructional design, especially as it applies to the development of instruction for novices (Mayer, 2004).

While some constructivists argue that "learning by doing" enhances learning, critics of this instructional strategy argue that little empirical evidence exists to support this statement given novice learners (Mayer, 2004; Kirschner, Sweller, and Clark, 2006). Sweller and his colleagues argue that novices do not possess the underlying mental models, or "schemas" necessary for "learning by doing". Indeed, Mayer (2004) reviews literature and found that fifty years of empirical data do not support using the constructivist teaching technique of pure discovery; in those situations requiring discovery, he argues for the use of guided discovery instead. Mayer (2004) argues that not all teaching techniques based on constructivism are efficient or effective for all learners, suggesting many educators misapply constructivism to use teaching techniques that require learners to be behaviorally active. He describes this inappropriate use of constructivism as the "constructivist

teaching fallacy". "I refer to this interpretation as the constructivist teaching fallacy because it equates active learning with active teaching" (Mayer, 2004).

Instead Mayer proposes that learners should be "cognitively active" during learning and that instructors use "guided practice." In contrast, Kirschner *et al.* (2006) describe constructivist teaching methods as "unguided methods of instruction." They suggest more structured learning activities for learners with little or no prior knowledge. Slezak stated that constructivism "is an example of fashionable but thoroughly problematic doctrines that can have little benefit for practical pedagogy or teacher education." and similar views have been stated by Meyer, Boden, and Quale. Kirschner *et al.* group a number of learning theories together (Discovery, Problem-Based, Experiential, and Inquiry-Based learning) and stated that highly scaffolded constructivist methods like problem-based learning and inquiry learning are ineffective. Kirschner *et al.(2006)* describe several research studies that are favourable to problem-based learning given learners are provide some level of guidance and support.

Controlled studies uniformly support direct, strong instructional guidance rather than minimal guidance during the instruction of novice to intermediate learners**.** Even for students with considerable prior knowledge, strong guidance while learning is most often found to be equally effective as unguided approaches. However, there is evidence that unguided approaches may have negative results when students acquire misconceptions or incomplete or disorganized knowledge. Mayer (2004) argues against discovery-based teaching techniques and provides an extensive review to support his argument against pure discovery, and not specifically aimed at

constructivism: "Nothing in this article should be construed as arguing against the view of learning as knowledge construction or against using hands-on inquiry or group discussion that promotes the process of knowledge construction in learners.

The main conclusion the researcher draws from the *three* research literatures reviewed is that it would be a mistake to interpret the current constructivist view of learning as a rationale for reviving pure discovery as a method of instruction." Mayer's concern is how one applies discovery-based teaching techniques. Students learn to become better at solving mathematical problems when they study worked-out examples rather than when they solely engage in hands-on problem solving. Today's proponents of discovery methods, who *claim* to draw their support from constructivist philosophy, are making inroads into educational practice. Mayer's point is that people often misuse constructivism to promote pure discovery-based teaching techniques. He proposes that the instructional design recommendations of constructivism are too often aimed at discovery-based practice. Kim (2005) found evidence that practice by novices during early schema acquisition distracts these learners with unnecessary search-based activity, when the learner's attention should be focused on understanding (acquiring schemas). The study by Clark and Ellen from which the quote at the beginning of this section is taken has been widely cited and is important for showing the limits of minimally guided instruction.

Hmelo-Silver *et al.* (2007) respond, pointing out that conflated constructivist teaching techniques such as inquiry learning with "discovery learning" are improved students' performance in teaching and learning process**.** This agrees with Mayer's viewpoint (2004) that even though constructivism as a theory and teaching techniques

incorporating guidance are likely valid applications of this theory, nevertheless a tradition of misunderstanding has led to some question about "pure discovery" techniques. The argument between the use or working memory and long term memory is also important to focus on in this reference, as it argues that one of the main beliefs of constructivism itself is that one derives new ideas from past knowledge. "Any instructional theory that ignores the limits of working memory when dealing with novel information or ignores the disappearance of those limits when dealing with familiar information is unlikely to be effective." This contradicts the belief that one can build upon ideas that are recently attained, yet also rejects the idea that one cannot combine the two.

2.2 Conceptual Framework

In this study the following concepts were examined: Business Education, Accounting and Academic Performance.

If general education is thought of as the adjustment of the individual to his environment; business education should be regarded as the adjustment of the individual to his business environment. Business education is an education for business. It is the intellectual and vocational preparation of people for earning a living in a contemporary industrial and business environment. In other word, business education is the education for the acquisition and development of skills and competencies, attitudes and attributes which are necessary for efficiency of the economic system. The first generation Business Educators believed that there was no single definition of Business Education and they always started their definition with,

"There are many definition of business education as there are business educators". For example, an expert Business Educator once described Business Education in relation to the parable of the blindmen and the elephant. Depending on which part of the elephant he touched, each one of them defined the elephant either as a wall, a spear, a snake or a rope. Their ideas about the elephant were limited by their own perception and experience (Aliyu, 2001).

Thus, business education has being defined by various authors but few will be examined in this study. Udoh (2010) defines business education as a programme of study that covers a wide range of spectrum of economic activities in any society. It equips scholars with desirable competencies necessary for self-employment which is very important in the present depressed global economic situation. However, business education is an aspect of education whose primary purpose is to prepare an individual for gainful employment in recognized occupation through the acquisition of skills, knowledge, attitudes and understanding necessary for productive activities. Furthermore, Osuala (2002) opines that it is a training system that enables the beneficiary to acquire skills that will make him fit into the world of work. Ihekwoaba (2006) sees business education as an aspect of education that comprises the vocational parts, which assist individuals to live a useful and fulfilled life and contribute to the needs of their immediate environment and the nation.

Ibrahim (2008) states that business education encompasses knowledge, attitude and skills needed by all citizens in order to effectively manage their personal resources and participate effectively in the economic system. The National Policy on Education (2004) defines business education as that aspect of education which leads to the

acquisition of practical and applied skills as well as basic scientific knowledge. Business Education being an integral part of vocational education has two major thrust; education for business which aims to prepare its recipient to be intelligent consumer of goods and services and as well as acquire skills necessary for paid employment or be self-dependent as an entrepreneur. In business education, wide range of courses is taught such as accounting management, office technology, information and communication technology, marketing and distributive education.

Finally, Ukoje (2010) concludes that business education provides individuals with skills and acknowledge about business and for business. He also stresses that individuals who study courses in business education are well informed about what obtains in industries that produce goods and services, financial institutions, management of funds, due process in offices, trade within and across countries and government policies concerning their operations.

From the aforementioned definitions this study observes that business education has many descriptions and definitions, people in the field and outside the field have different perception on business education. Therefore the researcher sees the business education as a programme designed to equip the learner with all necessary skills, knowledge, attitudes and habit that will enable individual to perform effectively and competently in any area of his career choice. This study further states that the knowledge of business education courses exposes students to different investment and job creation abilities, as well as encourages individuals to be self-reliant, cultivate the habit of promptness, commitment, courteous manner and orderliness.

From the outside, accounting can appear to be a purely practical subject. It would be very easy to focus on just the applications of techniques and procedures. But accounting is more than just a set of calculations; unless we can understand and interpret the figures we produce, the calculations are pointless! Accounting provides information for a wide variety of different users and purposes, and its practices can only be properly understood and assessed in relation to the economic and social environment in which they are applied. Therefore there are four aspects to this subject:

1. Techniques for recording, calculating, classifying and reporting accounting information.
2. The legal and institutional background associated with accounting information.

3. The economic and administrative problems which the information is required to solve.
4. The interpretation of reports prepared, using 1 in the light of 2 and 3.
The accounting information referred to in 1 may not be financial, but for the purpose of this it will almost always be. The problems referred to in 3 are largely concerned with the planning of, and control over, the use of economic resources. They are also concerned with the measurement of income and of various kinds of value changes. In order to properly interpret accounting information as in 4, and apply it to the problems in 3, we need to understand the theory and principles which underlie the techniques in 1.

The study of accounting is traditionally divided into two parts according to the types of users of the accounting information. Financial accounting is primarily concerned with the needs of users outside business (or other organizations). Therefore it relates to the external control and management of resources (for example, by shareholders of the company in which they have invested their funds, or by banks making loans). A key part of financial accounting is reporting the performance and position of the business to these external users, via the financial statements. The form and content of financial statements is usually highly regulated. In contrast, management accounting is concerned with the needs of users inside the business. Therefore it relates to the internal control and management of resources (for example, by the directors, management or employees of a company). Management accounting statements may be more detailed than those prepared for external users, and do not normally need to meet any legal requirements. Countries around the world organise their economic and financial activities in different ways so, inevitably, legal requirements, regulation and administrative procedures also vary across countries.

Asaolu (2002) states that "financial accounting is the process of recording, classifying, selecting, measuring, interpreting, summarizing and reporting financial data of an organization to the users for objective assessment and decision making". Accounting data are processed into accounting information through the use of accounting principles and conventions. Accounting is also defined as the systematic recording, reporting, and analysis of financial transactions of business. Accounting theory has been defined by Ibrahim (2011) as logical reasoning in the form of a set of broad principles that provide a general frame of reference by which accounting can be evaluated; guide the development of new practices and procedures; and provide a coherent set of logical principles that form the general frame of reference for the evaluation and development of sound accounting practices.

Academic performance refers to what students achieve in their studies and how they cope with or accomplish different learning experience given to them by their teachers. Ibrahim (2011) reports that in educational institutions, success is measured by academic performance **or how well a student meets the target set out by the**

institution. Academic performance as opined by Rothstein (2000) refers to successful accomplishment or performance in a particular subject area. It is indicated by grades, marks, and scores of descriptive commentaries.

Performance of students has for long generated a lot of interest among educators, researchers, government officials, parents, and students themselves. Many studies have examined the factors that influence students' performance in primary, secondary education as well as tertiary level, with the purpose of enhancing learning at these stages and reducing the level of drop-out. Performance of students, in line with Gouch (2009) can generally be referred to as the way and manner students deal with their studies and how they cope with or accomplish different tasks given to them by their teachers. In other words, it is essentially about student's ability to study and remember facts and being able to communicate knowledge verbally or on the paper.

Kobaland and Musek (2001) define performance on task with measures such as comprehension, quality and accuracy of answers of tests, quality and accuracy of problem solving, frequency and quantity of desired outcome, time or rate to solution, time on task level reasoning and critical thinking, creativity, recall and retention, and transfer of tasks.

2.3 Historical Development of Business Education in Nigeria

Business education has been in existence since the birth of man in an informal sense. In the pre-literature society up to modern times, people have used their business skills and knowledge informally acquired in prototype business situations and exchange, storing, transporting, and transactions.

The history of formal business education in Nigeria can be traced to British colonial administration and European commercial activities in the country (Aliyu, 2001). The need to provide low middle level indigenous secretarial services for British colonial administration and European trading companies led to the establishment of private and voluntary agency schools and classes for business subject programme. These schools enrolled their students for external overseas examination in the United Kingdom. However, no one can clearly and definitely state when formal business education started in Nigeria. Traces showed that this type of business education were found in the last two decades of the nineteenth century when some Nigerian nationals in business partnerships with overseas exporters had to learn simple commercial arithmetic, some book-keeping, business communication and typing for the purpose of facilitating business transaction. Thus the early Nigerian entrepreneurs pioneered business education in order to meet the needs of their export markets. Government and early missionary bodies contributed immensely to the evolution of business education. From among the clerical cadre that were trained by government and the missions emerged those who later learnt business arithmetic and simple book-keeping.

St. Andrew's College Oyo, founded in 1896 now Alayande College of Education, was known to have taught, among other things, simple accounting (book-

keeping) to teacher trainees some of whom later on their own learnt typewriting and shorthand during holidays (Aliyu, 2001). Between 1960 the missions, particularly Roman Catholic, established schools for training girls as secretaries in 1955, the Secondary Modern Schools were introduced to give pre-vocational business training. Eight Colleges were opened to train teachers, though afterwards the future of the Secondary Modern Schools was made bleak and they were eventually phased out. Some leading commercial secondary schools can easily come to mind such as Abott (later, Okpe Grammar School) Sapele, Christian Secondary Commercial College, Apapa and Essi Commercial College, Warri, e.t.c. Yaba College of Technology founded in 1932 was the only post-secondary institution then offering business education courses (Aliyu, 2006).

Nigeria witnessed a phenomenal growth in the number of institutions offering business education courses in the last two decades. At the university level, University of Nigeria, Nsukka (1960) blazed the trail, followed by University of Lagos (1962); Ahmadu Bello University, Zaria (1962). Obafemi Awolowo University, Ile Ife (1962) and University of Benin which introduced business education programme in 1975. The business teacher education programme at degree level started in Nigeria in 1975-76 by University of Nigeria, Nsukka, and Ahmadu Bello University, Zaria. Many other universities, particularly in the South-East geo-political zone, now offer business education programme. At the lower post-secondary level, we have seen a great number of colleges of technology and polytechnics offering business education courses with a few of them running business teacher education programme as it is the case with the Federal Colleges of Education (Technical) at Akoka, Gombe, Bichi, Asaba, and Federal College of Education (Technical) for women in Gusau, Zamfara State. Most Federal and State's Colleges of Education all over the country have business teacher education programme on their curriculum.

At the Secondary Education level, as the demand for business education rises so also its supply increases. All the previous prototypes grammar schools now offer basic business education courses especially now with the implementation of 6-3-3-4 system of education in progress in pursuit of the laudable objectives of the National Policy on Education. In a survey carried out by Ulinfun in then Bendel State, and reported by Aliyu (2006), it was discovered that between 1975 and 1978, the number of secondary schools offering basic business courses (particularly economics) rose from 86.1% to 96.2%. Of the 103,624 students who enrolled in 83 of the secondary schools in the state, 45,600 were receiving instruction in business education. Also the number of secondary school students offering business education courses for the West African Certificate Examination in Nigeria rose from 40,601 to 79,759 (nearly 100% increase).

2.4 Teaching Methods in Business Education

Research on teaching methods has for long been of interest to educationists. However, some studies have been carried out on certain aspects of the programme but have yet to investigate the academic performance of business education students in the use of guided-discovery and lecture teaching methods. Research evidence shows that the challenges confronting the higher education teachers are basically on the methods of imparting the knowledge. It is opined by Mkpa (2009) that teaching is based on methods which at the long run bring about effective teaching. Teaching, according to Modebelu and Duvie (2012) involves bringing about or at least facilitating desirable changes in learners. However, effective teaching requires that the teacher steps out of the realm of personal experience and step into the world of the learners. Instruction is the transmission to the learner and the acquisition by him of specific skills, information, knowledge or other established data. The mode of instruction or teaching applied in achieving these objectives is referred to as method. Methodology therefore refers to the processes and techniques a teacher uses to transmit facts, skills, information and knowledge to the learners so as to facilitate the accomplishment of the set objectives.

Research evidence shows that the major problem in tertiary institution is the method of imparting knowledge. To this Ogunu (2000) reveals the difficulties children of certain ages encounter when they are instructed using verbal approach. This is also confirmed in a study carried out in Nigeria by Dada (2000). He reveals that the method presently employed in teaching, in most of business subjects are inadequate or ineffective. It is of a necessity that a skillful teacher needs to be conversant with various teaching strategies which may be applied to subjects at different class situations. Oyovwi (2007) affirms that many methods of teaching exist in education and they are meant to make teachers succeed in their bid to disseminate knowledge.

However, success in the use of any method differs based on intelligent analysis of the objectives, the students in class, the curriculum content or the type of subject matter. In addition, the impact of any teaching method is not only limited to the conditions surrounding the teaching, the advantages and the disadvantages of a particular method in a particular situation should also not be left out. As a result of this, a study of the comparative analysis of two teaching methods and their effects on the academic performance of business education students in principles of accounting becomes imperative. It is hoped that the results of this study will provide evidence as to the nature of two basic teaching methods virtually used in tertiary education (guided-discovery and lecture methods) and their distinctive approach towards achievements by students in colleges of education.

One of the function of a teacher is the creation of opportunities from which learners can gain such experiences that will enable them acquire the knowledge, skills, attitude and appreciation that will serve them as tools in life. Teaching methods are

devices used by teachers to create situation in which learning experiences can freely be passed to students. Mkpa (2009) opines that teaching method is the totality of all the strategies, techniques and ways that a teacher employs to maximize and facilitate classroom interaction. It is a means of conveying facts and decoding messages that eventually results in the realization of stated educational objectives. Teaching method is therefore the procedure, orderliness in planning and execution of teaching with an appropriate integration of instructional materials to achieve the objectives at the classroom level. There are several teaching methods that can be employed in the teaching and learning of business education subjects as stated by Mohammed, Gayus, Oscar and Solomon (2002). These include demonstration, project, field-trip, problem solving, discussion and lecture. Therefore, for the purpose of this study lecture and guided-discovery teaching methods were reviewed.

2.4.1 Lecture Teaching Method

This is one of the teaching methods commonly used by business education teachers. Lecture method, known as conventional or traditional method of teaching, is the oldest method of teaching. It is originally traced to the Middle Ages when highly prized Jewish teachers used it in imparting knowledge. The Jewish learners through this method memorized everything the teacher said by heart to repeat, reproduce and regurgitate them almost verbatim when needed. Lecture method is purely the act of giving a long talk to group of people on a subject matter within a specific time. It is very popular in secondary schools and tertiary institutions. It is a typical teacher-centred method which may entail reading from a note. Modebele and Duvie (2012) consider lecture method as a process by which teachers send information to students, projecting one-way channel of communication model. Perhaps, one of the basic reasons for its wide criticism is because it creates a situation of inactivity for the students in classroom. The method also gives teachers the exclusive opportunity in using reference materials to organize ideas, outline, formulate conclusions and to speak.

It has however been stated that the method can make for effective teaching especially when carefully integrated with other methods of teaching. Mohamed *et al.* (2002) identify the following merits and demerits for lecture method:

Merits

(a) Lecture method can used to cover wide area of study within a short period of time.

(b) A large population of students can be taught at a time.

(c) Lecture method requires little or no instructional materials.

(d) Students do not search for facts as the teacher always provides them as such.

Demerits

(a) It does not allow students to attain high cognitive reasoning.

(b) Students scarcely remember what they hear alone. Thus, students generally remember 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they hear and see, 70% of what they say and 90% of what they say and do.

(c) It makes students passive listeners as the method is characterized by one-way communication practice.

(d) There is no opportunity for meeting individual different needs especially when the class is rather large.

(e) Students with learning problems or ear defect are always at disadvantage at it is the auditory sense that is often called at work in using the method.

However, for effective selection of appropriate teaching method, the following factors must be considered according to *Mohamed et al.* (2002): Nature of the subject matter to be taught and the objectives to be attained, time available, number of students, facilities and materials available, interest and the abilities of the teacher, and effectiveness of the method.

2.4.2 Guided-Discovery Teaching Method

Discovery learning is an inquiry-based method. The concept of discovery learning has appeared numerous times throughout history as part of the views of educational philosophers such as Rousseau, Pestalozzi and Dewey. There is an intimate and necessary relation between the processes of actual experience and education. Discovery learning also enjoys a few positive swings of the educational trend pendulum in American education, but it has never received overwhelming acceptance. Discovery learning takes place most notably in problem solving situations where the learner draws on his own experience and prior knowledge to discover the truths that are to be learned. It is a personal, internal constructivist learning environment. Bruner writes: "Emphasis on discovery in learning has precisely the effect on the learner of leading him to be a constructionist, to organize what he is encountering in a manner not only designed to discover regularity and relatedness, but also avoid the kind of information drift that fails to keep account of the uses of which information might have to be put" (in Mayer, 2003).

The cognitive approach to teaching is gaining momentum. Educators have realized that for students to be successful in the twenty-first century they need to be lifelong learners. Helping them to develop the skills necessary to become lifelong learners requires a different approach to teaching and learning. The direct instruction

method that was used almost exclusively in the earlier part of this century, though still effective for some skills, is giving way to a more cooperative approach. This involves students working together toward common goals, while teachers serve as 'experts' and coaches, and facilitators, and sometimes just getting out of the way, letting students discover things for themselves (Mayer, 2003)

Guided-discovery involves helping learners to discover certain facts or answers to a given problem. Learners most often depend on their teachers to provide all the answers they need. Guided-discovery also involves inquiry method that stimulates learners' interest in seeking information about ideas and concepts by asking questions. Guided-discovery drills learners and enables them to search for knowledge in a systematic and logical way. Guided-discovery promotes independent reasoning and self-reliance while the teacher guides, directs and re-directs which can lead the learners to the answers. Guided-discovery is time consuming and expensive but helps learners develop skills of observation, exploration and questioning. Guided-discovery promotes active participation, team work cooperation and tolerance among leaner (Modebule and Duvie, 2012).

The student receives problems to solve, but the teacher provides hints and directions about how to solve the problem to keep the student on track (Mayer, 2003). Guided-discovery may require more or less time than expository instruction, depending on the task; but it tends to result in better long term retention and transfer. Guided-discovery encourages learners to search actively for how to apply rules and makes sure that the learner comes into contract with the rule to be learned (Mayer, 2003). No matter the kind of teaching method employed by the teacher, there are some factors that need to be considered before choosing such method.

2.4.3 Factors to be considered for teaching Methods

1. **The Method must be suitable for the Learners:** Some teachers consider the selection of method as an area where they have exclusive monopoly. This conception is wrong as their selection of method affects their learners.

   Learners' interest, age, level and weaknesses should guide the selection of the relevant method. For instance, it would be wrong of a teacher to impose the use of discussion method on any category of learners that have speech deficiency.

2. **The method must be also suitable to the teacher:** Every Teacher is a unique personality with distinct behaviour. Some teachers may function well in certain

conditions and situations while others may flop significantly under similar conditions. For instance, some teachers are intrinsically motivated, while some are extrinsically motivated.

3. **The Method should be best for the Subject Matter:** By subject matter, we mean the topic to be taught. No matter how good a strategy of teaching is, if the method is not in line with the topic, little or no success will be achieved.
4. **The Strategy must be right for the Resources Available:** By resources we mean the instructional aids or materials. The decision of a teacher to use a particular text or a reference material hinges on the availability of the text.

Azubuike (2005) also submits some basic criteria which must be considered before the selection of any teaching methods.

5. **Time Allocated:** Time allocated for the subject on the timetable should be a guide in the selection of teaching methods. She further explains that a teacher who has a limited time may want to favour lecture method because of its attributes. However, lecture method is not applicable in teaching the foundational classes.

Also, Azubuike (2005) states that the objective of the teacher should also be considered before the selection of any method. This implies that what the teacher intends to achieve at the end of the lesson should be in line with the selected method.

As a result of these factors, it is advisable that a skillful teacher at the tertiary level of education should consider these factors if he/she needs to achieve his/her stated objectives.

It is however sustained that various methods of teaching exist but there is a distinctive difference between them. There are methods used in higher education which virtually cannot be used in the lower level of education, for example, in nursery and primary education.

Effect of Teaching Methods on Students' Academic Performance

As an educator, this researcher has always been fascinated by the relationship between teaching methods and students' academic performance; especially when it

comes to application in the context of 21st century education. It seems that there is something in teaching that opens the gate of learning. It is true that successful learning depends on various factors that are not all teacher-related, but the methods that a teacher uses continue to play an important role in student learning and in their academic achievement? The challenges that educators face in the 21st century are so diverse that using better teaching methods is more crucial now than ever before.

Studies on teaching methods are not something new in educational research. A large number of studies have been done on this area. Pascarella and Trenzini (2005) have written a compendium of research studies conducted in this area over the past three decades. Even before that, Feldman and Newcomb (1973) mentioned decades of similar research studies in the area of teaching methods. These show both increased interest and knowledge in the area of teaching strategies and learning theories. Svinicki (2000) suggests that these studies on teaching methods conducted in the past decades are so overwhelming that it would be impossible to go over them all in detail. For many decades, the search for better teaching methods to provide the best learning has been the goal of education. However, teaching method is not a one-size-fits-all proposition. Flexibility is crucial in adapting teaching methods in the class. Since all teachers are different, the strategies they use, and the way they use them will depend on the context and situation of their class (McCornac & Phan Thuy, 2005), as well as their own personality and biases.

The main question that still lingers, even after the large number of studies that have been done is, what are the most suitable teaching methods, and how do they impact students' learning in today's setting especially in large classes? Can cooperative learning provide better results than just lecture in this situation? Do students' attitudes toward the class have any relationship with teaching and learning? The effect of teaching methods on students' learning should be the interest of every teacher and student. In the field of business teaching, there have been various studies done in an attempt to measure teaching methods. Robinson and colleagues (1990) conducted a case study on several teaching methods in business studies to explore the reasons for their use, and perceptions of effectiveness. The result of their study suggested that various methods did influence teaching effectiveness. Another study by Schul (2011) suggested that case studies were an effective teaching method for business instruction. This led to further studies on teaching methods in the area of business.

Recently, more research in business education suggest that teaching methods that involve small group learning have a positive effect on student learning. For example, a study conducted by Bell, Quazi, and Jasper (2004) suggested that students prefer student group study for better learning in the class. Xu and Yang (2010) acknowledge the positive impact of social interaction in groups. Hosal-Akman and Simga-Mugan (2010) state that cooperative learning has better potentials compared to other teaching methods. This is not surprising since research has shown that cooperative learning has

good potential for increasing learning (Ahles & Contento, 2006; Bennett, Hogarth, Lubben, Campbell, & Robinson, 2010; McLeish, 2009; Schul, 2011).

With this general background, this study sought to further develop a better understanding of the influence of guided-discovery and lecture methods of teaching on performance of business education students in principles of accounting. The focus was on discovering related variables in actual class settings that might help us understand teaching and learning better. In developing countries where class sizes are usually large and teacher-directed class are considered the norm, it is important to see how cooperative learning method can play a role in students' academic performance. Cooperative learning has been found to be a popular choice of teaching method in recent years. Cooperative learning allows students to work well together for specific tasks (Slavin, 1990). The core point of cooperative learning is the positive interdependence-learning atmosphere created as the students work in a group (Kagan, 1990).

Numerous studies indicate that cooperative learning is a favourable teaching approach for academic and social gain when used responsibly (see for example Ediger, 2011; Sharan, 2010; Tarim, 2009). Nagel (2008) considers that class should go beyond lecture and include active learning where collaboration is encouraged. Cooperative learning is also considered to help students develop the requisite skill of knowing how to work together in today's pluralistic society. It is also seen as an integrative and holistic approach to learning, with a focus on social implications (Schul, 2011). For use in large classes which are particularly common in the developing world cooperative learning is also seen as a favourable approach; meanwhile, far fewer studies have been done on its direct effect on students' academic performance. A

study by Coskun (2011) supports this idea that student grouping in the class does help elicit some positive or unique and original ideas from students.

Bell *et al.* (2004) studied thirteen teaching methods. These were suggested by empirical studies on teaching methods and students' perception to be the for learning. The result was that cooperative learning and small group activities are closely correlated with students' learning. The traditional teaching method, lecture, also has strong literature support. Various research studies have concluded that lecture is still the most widely used teaching method today (Berrett, 2012; Kauffman, 2012; Omateye, 2007). A recent study by Covill (2011) on college students' perception of the traditional lecture method suggests that lecture is of great value and receives positive responses from students. Covil further suggests that the lecture method may carry learning characteristics such as problem solving, critical thinking, usually found only in active learning.

Lecture is seen as the most convenient teaching method even though it may not have the greatest impact on student learning (Jones, 2007), because it seems to be the easiest to prepare compared to other methods. Nevertheless, the impact of lecture should not be underestimated. Tormey and Henchy (2008) argue that the effect will be even greater when lecture is revised and combined with other teaching methods or used with educational technology. This sort of enhanced lecture does contribute to student learning (Berry, 2008; Burke, James & Ahmadi, 2009; Campbell, & Mayer, 2009). Literature supporting small group learning and lecture as a teaching method is vast. There have been many studies conducted to support each method. But few studies have discussed the comparative effect on students' academic performance of these two teaching methods. One study that came very close to this found that the mean scores of the cooperative learning group were slightly higher than the lecture group (Hosal-Akman & Simga-Mugan, 2010). Another study showed that teaching methods did have a significant effect on students' scores on achievement test (Sadi & Cakiroglu, 2011).

Several studies showed that students' attitude have a relationship with teaching method and academic performance. Litke's (1995) study shows that students have various attitudes that are closely related to teaching methods. Sadi and Cakiroglu's

study (2011) also finds that the method used seemed to affect students' attitude toward the class, and this may be the factor that most influences learning. A study by Akkuzu and Akcay (2011) show a relationship between students' attitude and their academic performance. They suggest that students' positive attraction toward certain kinds of teaching may help increase their academic performance. Eastman, Iyer, and Eastman (2011) suggest that when students have a positive attitude toward something, they will do the task well.

2.5 Historical Development of Accounting

Accounting has its roots in the earliest history of civilization. With the rise of agriculture and trade, people needed a way to keep track of their goods and transactions. Around 7500 B.C., Mesopotamians began using clay token to represent goods such as animals, tools, food items or units of grain. This helped owners keep track of their property. Instead of counting heads of cattle or bushels of grain every time one was consumed or traded, people could simple add and subtract tokens. Different shapes were used for different goods. Around 400 B.C., the Sumerians began placing these token in sealed clay envelop. Each token would be stamped into the clay outside, but the tokens themselves would be kept safe from tampering or loss. This practice of pressing the tokens into the clay may have been the earliest genesis of writing. A few hundred years later, more complex token began to be used. These tokens had special markings to denote different units or types of goods. Starting around 3000 B.C. the Chinese developed the abacus, a tool for counting and calculating (Debonis and Gigliobiano, 2000).

However Udoh (2004) reported that the system of accounting known today was developed in late 15^{th} century by Luco-Paciolo (1445-1515). He is usually credited with synthesizing accounting as it was then practiced into modern accounting. Paciolo, an eminent mathematician and logician, was disturbed by the frantic pace of economic activity and the often haphazard manner in which financial records were maintained. He first applied theory to the solution of these practical problems and published the foundation for accounting in his mathematical treatise, SUMMA DE ARITHMETICAL GEOMETRIA, PROPORTION ET PROPORTION ACITA, in 1494 which led to double entry principles in financial accounting.

In Nigeria, the introduction of financial accounting and book-keeping was first noticed in the last two decades of the nineteenth century when some Nigerian nationals in business partnership with overseas exporters had to learn simple arithmetic, book-keeping , business communication and typing so as to facilitate business transaction between them (Aliyu, 2001).

Igben (2007) reported that pre-colonial Nigeria consisted of an aggregation of basically subsistence economies which did not require the services of Accountants. However, some historical evidences revealed that some form of traditional accounting practice existed prior to the coming of the British colonial rulers. Longe and Kazeem

(2012) observed that book-keeping and accounting records were used in the recording of financial transaction such as credit sales, loans and periodical contributions called 'Esusu' before the coming of British. Modern book-keeping and accounting began in Nigeria with the amalgamation in 1914 of Northern and Southern protectorates to form the territory now called Nigeria. Based on the British system, the colonial Governor is the chief executive and accounting officer of the government to the colonial office in London. However, private sector book-keeping and Accounting might have been in practice with account rendered to company head offices as a result of foreign companies operating in Nigeria as at then.

2.6 Accounting Concepts and Conventions

In July 1989, the International Accounting Standard Committee (ISAC) now replaced by the International Accounting Standard Board (IASB) produced a dominant titled, Framework for the preparation and presentation of financial statements. This document sets out the concepts that determine how financial statements are prepared and the information they contain (ICAN, 2010).

Akintelure and Oguobi, (2003) opine that accounting concepts are the ground rules of accounting that are followed in preparation of all accounts and financial statement. Accounting Concepts refers to the basic assumptions and rules and principles which work as the basis of recording business transaction and preparing accounts. Longe and Kazeem (2012) state that accounting as a discipline is concerned with the recording, analyzing and forecasting of income and wealth of businesses and other entities recorded in money terms.

The main objective of accounting concepts is to maintain uniformity and consistency in accounting records. These concepts constitute the very basis of accounting. All the concepts have been developed over the years from experiences and thus they are universally accepted rules. In line with Udoh (2004), the following accounting concepts were identified: Business as an entity, going concern, periodicity, duality, realization, and accrual.

Business concept: This concept assumes that, business enterprise and the owners are two separate independent entities. Thus, the business and personal transaction of its owner are treated separate. Udoh (2004) emphasizes that when the owner invests money in the business, it is recorded as liability of the business to the owners. Similarly, when the owner takes away from the business cash/goods for his/her personal use, it is not treated as business expenses. Thus, the accounting records are made in the books of accounts from the point of view of the business unit and not the person owing the business. This concept is the very basis of accounting.

Going Concern Concept: Under this concept the enterprise is regarded as a going concern that is, the business is continuing in operation for the foreseeable future. It is assumed that the enterprise has neither the intention nor the necessity to liquidate or reduce materially the scale of its operations.

Periodicity Concept: All the transactions are recorded in the books of accounts on the assumption that profits on these transactions are to be ascertained for a specific period. This is known as accounting period concepts. This concept requires that a balance sheet and profit and loss account should be prepared at regular intervals. This is necessary for different purposes such as ascertaining profit, financial statement, tax computation e.t.c.

Duality Concept: Dual aspect is the foundation or basic principle of Accounting. It provides the very basis of recording business transaction in the books of account. This concept assumes that every transaction has a dual effect, i.e it affects two accounts in their respective opposite side. Therefore, every transaction has both giver and receiver and they are of equal value, hence the need to create of accounts for each transaction – One account to be debited and other account to be credited. Slepian (2005) states that all Accounting transactions must keep this equation balance, so when there is an increase on one side there must be an equal increase on the other side or equal decrease on the same side.

Realization Concept: This concept states that revenue from any business transaction should be included in the Accounting records only when it is realized. The term realization means creation of legal right to receive money. Selling good is realization, receiving order is not. In other words, it can be said that revenue is said to have been realized when cash has been received, or right to receive cash on the sale of goods or services or both has been created (Igben, 2004).

Accrual Concepts: The meaning of accrual is something that becomes due, especially an amount of money that is yet to be paid or received at the end of the Accounting period. It means that revenues are recognized when they become receivable. When financial statements are prepared under the accrual concept of Accounting the effects of transactions and other events are recognized when they occur, and not as cash or its equivalent when they are received or paid. This means they are recorded in the Accounting records and reported in the financial statement of the periods to which they relate.

Accounting conventions: These are the rules and regulations that are intended to resolve the conflict which arises from the application of accounting concepts. The Accounting conventions identified by Akintelure and Oguobi (2003) are as follows: Materiality, Objectivity, Consistency, Conservatism, and Fairness.

Materiality: This principle holds that items of large material values are accorded their strict accounting treatment. Accounting practice only records events that are significant enough to justify the usefulness of the information. The materiality concepts proposes paying attention to important events and ignoring insignificant accounting items. Hines (2003) explains that this is because the extra effort required to process insignificant items is not cost effective. Hines also states that the concept

suggests that small asset purchases or improvements should be initially written off as an expense.

Objectivity: This principle connotes independence of judgment on the part of the accountant preparing the financial statement to meet the needs of all the users. It must be factual. Accounting records are to be derived from a source document; the information recorded is to be based on fact and not on personal opinion. Slepian (2005) explains that the concept emphasizes that accounting information should be measured and expressed in compliance with the Accounting standard which are commonly acceptable.

Consistency: In accounting there could be more than one way, or alternatives, of solving a specific problem. The accountant is at liberty to choose any alternative. However, once an alternative has been selected, the accountant is expected to follow that alternative until its full benefit is derived rather than changing from one method to the other. For example, in calculating annual depreciation, once the accountant uses straight line method in one accounting period, he is not expected to use diminishing balance method in the following year and thereafter; straight line method should be used in the subsequent year. Akintelure and Oguobi (2003) conclude that the consistency concept just means that similar items are treated in a similar way and the same treatment should be applied from one period to another. This means that when people look at an entity's Accounts, they can confidently and easily compare previous month's or year's results. Once an entity decides on one method of reporting, same method should be used for subsequent events.

Conservatism: This principle requires the exercise of great care in recognizing profit. While all know losses are adequately provided for, accountants do not zero in future profit no matter how likely they may be. Ibrahim (2011) defines conservatism as one that "anticipates no profit, but anticipates all losses". Anticipate profits means recognizing profits before there is legal claim to the revenues generating them and that the revenues are verifiable. Under the conservatism concept, the expenses of a particular accounting period are the costs of the assets used to earn the revenues that are recognized in that period. Therefore when the expenses in a period are matched with the revenues generated for the same period, the result is the net income or loss for that period. Udoh (2004) explains that the rule is to recognize revenue when it is reasonably certain and recognize expenses as soon as they are reasonably possible.

Fairness: This principle requires that accounting reports should be prepared not to favour any group or specific user of financial statement. It is an extension of the principle of objectivity.

2.6 Review of Empirical Studies

Investigations regarding students' performance have been conducted by quiet a number of researchers. Eskew and Faley (2002) investigated the relationship between students' approaches to learning, age and gender on performance of secondary

students and their performance in 100-level Financial Accounting course in a university in the United States. The researcher selected a sample of fifty (50) students out of a total population of five hundred and ten (510) students. The researchers tested three null hypotheses. The researchers developed a model to explain students' performance in the 100 level financial accounting courses. A multiple regression analysis showed that 54 percent of the variance in examination performance and indices of aptitude and effort accounted for the majority of the variance the researchers found. Eskew and Faley however found that secondary school performance in Accounting was significantly responsible for the variance in the students' examination performance.

The result of this research had a relationship with the researcher's work with regard to students' performance in Accounting at the secondary school level and gender, especially given the researcher's finding that students' performance in Accounting at the secondary school level was significantly responsible for the variance in their performance. However, it is the opinion of this researcher that a larger sample should have been studied. Also, the researchers were silent on whether or not the reliability of the instrument was established.

Udoh (2004) carried out an experimental study on the effects of lecture period and automotive device on the performance of low achievers in Introductory Accounting in Senior Secondary Schools in Kaduna. The main objectives of the study was to find out whether the morning or afternoon period and the use of automotive device were more conducive for the learning of Accounts to low achievers. Six (6) specific objectives were raised in line with six (6) research questions and six (6) null hypotheses. The researcher collected the sample of eighty (80) students who were randomly selected from a total population of two hundred and twenty (220) students.

The researcher analysed the data generated using frequency count percentage for answering research questions. Analysis of Variance (ANOVA), Pearson Product Moment Correlation, and the Z-statistic used tested null hypotheses at 0.05 level of significance and it was revealed that there was no significant difference in the mean scores of morning and afternoon group of low achievers in Introductory Accounting objective test.

The result of the study revealed that in both objective and written tests, the performance of morning and afternoon group of low achievers were not significantly different. However, the result showed that the morning group low achievers who performed well in objective test did not automatically perform well in theory questions. There is a difference between this present study and that of past researcher because the present study compares two methods of teaching, while that of the past researcher is based on lecture time that is morning and afternoon lecture. However, there is similarity between the two studies because both employed experimental and control group.

Oghenevwede (2010) examined the effect of discovery and inquiry approaches in teaching and learning of Biology on Secondary Schools Students' performance in Delta State, Nigeria. The researcher formulated four (4) null hypotheses; it employed a quasi-experimental design. The instrument named Biology Achievement Test (BAT) was used for data collection, total population was two hundred and eighty-four (284) out of which one hundred and fifty (150) were used as samples. The data collected were analyzed using analysis of co-variance (ANCOVA) at 0.05 level of significance. The major findings of the study indicated that discovery method was more effective and better than the inquiry method in teaching biology; the level of retention was higher in students taught with discovery method than students taught with inquiry method. Based on the finding the researcher concluded that the discovery method was better and more effective than inquiry method. Though the sample size of one hundred and fifty students out of the total population of two hundred and eighty-four students is adequate enough, there are similarities between the present study and that of the past researcher. Both pre-test and post-test were used in the current research.

Umar (2010) investigated whether the inquiry (guided-discovery) method of teaching had any significant advantage over exposition (conventional) method of teaching Financial Accounting in secondary school students in Zaria township in Kaduna State, Nigeria. The researcher collected data from a sample of forty two (42) students, out of a total population of one hundred and eight seven (187) students. The researcher answered four research questions and also tested four null hypotheses. Descriptive statistics, frequency counts, means and percentage were used to answer the research questions, while T-test and Z-test were used in testing the four (4) null hypotheses at 0.05 level of significance. The researcher used pre-test and post-test approach. The researcher determined whether there was any significant difference in the mean achievement of the experimental group (taught using the inquiry method) and that of the control group (taught using the conventional method). Furthermore, the researcher investigated the differences in the performance of male and female students in both experimental and control group.

The result showed that the students in both groups performed better in the post-test than pre-test. Also, there were significant differences between the pre-test and post-test mean performances of the students in Financial Accounting. The difference between this present study and that of past researcher is that this study is limited to state Colleges of Education, Principles of Accounting 100 level, with four research questions and four null hypotheses. There are similarities between this present study and the work of the past researcher because in both, pre-test and post-test were used with control and experimental group.

Luntungan (2012) study explored the effects of guided and conventional teaching methods in business instruction and students' attitude toward the class on students' academic performance. The respondents were 135 college students from an

Indonesian university. Both the experimental and the comparison groups took the same course taught in two different sections. For two weeks, one teacher taught the two sections the same course using different teaching methods. In the experimental group containing fifty-eight (n=58) students the teacher used direct small group activities and lectured in the comparison group (n=77). Two-way ANCOVA statistics and t-tests were used to test null hypotheses at 0.05 level of significance. The results showed that while both teaching methods had a significant effect on students' academic performance, the small group study group performed better. The results also showed that students' attitude toward the class did not affect academic performance; however, students' attitude were affected by the teaching methods used in the class.

There are differences between this present study and that past study because the present study was carried out in Nigeria while the past study was done in Indonesia. Also present study compared guided-discovery method and gender while that of the past study was on effects of small group activities on conventional method of teaching. There is similarity because present study used both experimental and control group which was also used in the past researcher's study.

Ibe (2013) investigated the effects of guided-inquiry and expository teaching methods on students' performances and interest in Biology. Students' performances in the sciences (Biology) had been below expectation. The performances of the students in the Researcher-Made Biology Test (RMBT) using the expository method and guided- inquiry were compared. Furthermore, the interests of the two groups of students in Biology were compared. Purposive samples of 84 senior secondary school two (SSS II) students were drawn from two intact classes in a co-educational secondary school in Imo State. Two instruments were used for the study namely Biology Achievement Test (BAT) and Biology Interest Scale (BIS).

The reliability of BAT was established at 0.78 through the use of Kuder-Richardson (K-R 20) statistic. The reliability of Biology Interest Scale (BIS) was calculated through the use of Cronbach Alpha. The research questions were answered using Means and Standard deviations while the null hypotheses were tested using Analysis of Co-variance (ANCOVA) at 0.05 level of significance. Major finding of the study included the following: Teaching methods had statistically significant effect on students' performances in Biology. Students taught with guided-inquiry teaching method performed better than students taught with expository teaching method in Biology. The female students performed better than the males in the RMBT. The female students had higher interest levels in the RMBT than the males. The researcher recommended among other things that Biology teachers and Science teachers in general should take into consideration these teaching methods when presenting Biology and science materials to the students in the classroom.

2.7 Summary of Reviewed Literature

In this chapter the theoretical framework, which is constructivism teaching and learning theory, on which the study is based is discussed fully. Literature related to the study is reviewed. The review is done in stages. One is literature on the business education concept and historical background of business education in Nigeria. Business education is reviewed based on the opinion of business education experts. Historical background is traced to informal sense of business education up to the level where formal education was introduced by British Colonial administration. Literature on the meaning, objectives, historical and theory of Accounting is reviewed. Accounting experts have pointed out that, as with any discipline or body of knowledge, some underlying theoretical structure is required if logical and useful set of practices and procedures are to be developed for reaching the goals of accounting profession, and for expanding knowledge in that field. The history and development of accounting has been traced to the Mesopotamians who began using clay tokens to represent goods such as animals, tools, food items or units of grain, which helps in the keeping of record. Literature regarding the concept of accounting profession is reviewed by the researcher and this includes both accounting concepts and conventions such as business as an entity, going concern, periodicity, duality, realization, and accrual.

Literature on teaching methods in business education is reviewed by the researcher showing different methods of teaching that can be employed in teaching and learning business education. Subjects examined include Guided-discovery, Lecture, problem solving, demonstration, play-way and peer-teaching. Effects of teaching methods on students' academic performance are also reviewed and different authors' opinions are examined. The review shows that teaching methods are very significant in determining students' performance. Factors that determine teaching methods are also reviewed such as time allowed strategy that must be right for the resources available, and the method that must be right for the learner. Lecture and Guided-discovery teaching methods are reviewed by the researcher based on different opinions by different authors. Many researchers have reported that teaching methods have effects on students' performance in teaching and learning process. Different teaching methods can be applied during teaching and learning processes.

This study has filled the gaps that are not covered by the previous researchers as shown in all the empirical studies reviewed. No researcher has examined the effect of Guided-discovery, lecture methods and Gender on accounting students' performance in Colleges of Education in the South West Geo-Political Zone, Nigeria. This is the major gap filled by this study.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

This chapter outlines the specific methods and procedures used in this study. The chapter is discussed under the following sub-headings:

3.1 Research Design
3.2 Population of the Study
3.3 Sample Size and Sampling Procedure of the Study
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 is quasi-experimental design. The researcher used intact class for the study. Also the study had both experimental and control groups, the study involved pre-test and post-test.

3.2 Population for the Study

The population for the study was 100-level business education students in the six state Colleges of Education, namely: Adeniran Ogunsanya College of Education, Lagos; Emmanuel Alayande College of Education Oyo; College of Education, Ikere Ekiti; Osun State College of Education, Ila Orangun; Osun State College of Education Ilesha and Tai Solarin College of Education, Ijebu-Ode as at 2013/2014 academic session. Accordingly, the population for the study is One thousand seven hundred and sixty-four (1,764) of 100 level business education students in the colleges as shown in Table 3.1.

Table 3.1 **Population**

Name of the Colleges	Students		
	Male	Female	Total

Adeniran Ogunsanya College of Education, Lagos	85	182	267
Emmanuel Alayande College of Education, Oyo	125	195	320
College of Education, Ikere Ekiti	120	206	326
Osun State College of Education, Ila-Orangun	91	160	251
Osun State College of Education, Ilesha	102	193	295
Tai Solarin College of Education, Ijebu Ode	110	195	305
Total	632	1132	1764

Source: Field Survey, 2014

3.3 Sample Size and Sampling Procedure

From the six Colleges of Education, Emmanuel Alayande College of Education was purposely chosen for the study because it had the sample size which was in line with Kerejcie and Morgan (1970) who suggested Three hundred and seventeen sample size from a population of one thousand eight hundred. Since Emmanuel Alayande College of Education had sample size closer to sample size suggested by Kerejcie and Morgan (1970) therefore, three hundred and twenty business education students from the institution served as sample size for the study. In order to satisfy the condition of in-tact class, the researcher used 20% of sample size three hundred and twenty which lead to thirty-two students for experimental group and thirty-two for control group as shown in Table 3.2.

Table 3.2 **Sample Size for the Study**

Treatment groups	Students		
	Male	Female	Total
Experimental Group	13	19	32
Control Group	12	20	32
Total	25	39	64

3.4 Instrument for Data Collection

The study used Instructional Package for Principles of Accounting (IPPA) and Principles of Accounting Achievement Test (PAAT) as instruments for data collection. The Instructional Package comprised of lesson plan on selected topics to be presented using guided-discovery teaching method (Appendix B) and lecture method of instruction (Appendix C). Principles of Accounting Achievement Test (PAAT) comprised both pre-test and post-test. Pre- test consisted of twenty (20) items

(Appendix D) with Answers (Appendix E). The post-test consisted of two theory questions on the topic taught (Appendix F) with Answers (Appendix G).

3.4.1 Validity of the Instrument

Instructional Package for Principles of Accounting (IPPA) and Principles of Accounting Achievement Test (PAAT) were scrutinized and vetted by research experts in the Department of Vocational and Technical Education, Ahmadu Bello University, Zaria, not below the rank of Lecturer I. Suggested modifications on the test items were effected before the tests were administered to students in the selected College of Education. This was in agreement with Sukon and Jawahir (2005) who said that validity of research instrument must be done before administration.

3.4.2 Pilot Study

In order to establish the reliability of the Principles of Accounting Achievement Test (PAAT), a pilot study was conducted using forty (40) students in 100-level at Business Education Department, Kwara State College of Education, Ilorin. Both pre-test and post-test components of the instrument were administered to 100 level Business Education Students. This is because the college had a set of business education programme which was in line with researcher target population also it was located in North-Central Zone, Nigeria which was not in the area of coverage of the researcher.

3.4.3 Reliability of the Instrument

The researcher determined the reliability of the Principles of Accounting Achievement Test pre-test and post-test using the result received in the pilot study. The data obtained were subjected to statistical analysis in order to establish the reliability coefficient of the instrument. A reliability coefficient of 0.89 was obtained using Pearson Product Moment Correlation Coefficient formula. This according to Raymond (2005) was judged to be reliable because it was more than 0.5.

3.5 Procedure for Data Collection

The researcher collected letter of Introduction as in (Appendix A) from the Department of Vocational and Technical Education, Ahmadu Bello University, Zaria, to identify the researcher. This indicated that the researcher was truly carrying out a research on the study in order to get maximum cooperation from the selected Colleges of Education. The lecture period lasted for five weeks comprising single period which lasted for 2 hours per week. The first 45 minutes was used solely for worked examples and the remaining one hour fifteen minutes was used for instructional activities on the selected topics on Principles of Accounting. All the students in both groups were subjected to pre-test (Appendix D) marked by the researcher using marking scheme (Appendix E). The pre-test scores served as a basis for comparing students' performance and level of their understanding in principles of accounting before

treatment began. Familiarization, creation of conducive environment and establishment of rapport and trust with the students were done.

The experimental group was taught Principles of Accounting using Guided-discovery method, and graphical representations were employed to guide students' cognitive process and mental road maps on important points. Relevant questions were carefully matched with the relevant concepts. The concepts were organized logically to facilitate easy information processing and as stimuli to elicit students' response to relevant questions. Practical works on principles of accounting were given to students after each classroom instruction session. While the control group was taught Principles of Accounting using lecture teaching method with chalkboard and the recommended accounting textbook as in (Appendix C). There was no time for students' interaction in this group. There was no extra connection because the researcher used intact class and teaching was done based on the school time-table. After five weeks of lecture the students subjected to post-test as in (Appendix F) and marked by the researcher using marking scheme (Appendix G).

3.6 Procedure for Data Analysis

In analyzing the data collected, descriptive statistics such as frequency distribution and mean were used to answer all research questions. T-test was used to test all null hypotheses. The Null hypotheses were retained when the calculated t value is less than or equal to t-critical table value at 0.05 level of significance. But when calculated t value is greater than t-critical table value the null hypotheses were rejected.

CHAPTER FOUR

PRESENTATION AND ANALYSIS DATA

This chapter analyzes the data collected in the course of the study. This is done under the following sub-headings:

4.1 Analysis of Demographic Variables

4.2 Answering to Research Questions

4.3 Testing of Null Hypotheses

4.4 Summary of Major Findings

4.5 Discussion of Major Findings

4.1 Analysis of Demographic Variables of Respondents

Analysis of demographic variables of respondents is done under the sub-heading in Table 4.1.

Table 4.1: Distribution of Students by Gender

Group	Variables	Male (%)	Female (%)	Total %
Experimental	Guided-Discovery	13(40.6)	19(59.4)	32(100)
Control	Lecture Method	12(37.5)	20(62.5)	32(100)
Total		25(39.06)	39 (60.94)	64 (100)

Source: Field Survey, 2014

Table 4.1 showed that the females were 19 (59.4%) in experimental group and 20 (62.5%) in the control group. Males were 13 (40.6%) in Experimental group and 12 (37.5%) in Control group. The total of males in both experimental and control group stood at 25 students (39.06%) and Females stood at 195 (60.94%). This showed that female students were more than male students.

4.2 Answering of Research Questions

The result of the pre-test and post-test was used to answer all four research questions as contained in chapter one. The summary of each research question is as presented in tables 4.2 to 4.5.

Research Question One: **What are the influences of guided-discovery teaching method on students' performance in Principles of Accounting in Colleges of Education**?

Table 4.2 provides summary of the data collected with respect to research question one.

Table 4.2 Mean scores of pre-test and post-test of students taught with Guided-discovery teaching method.

Pre-test				post-test			
Range Of scores	No. of Students	∑x	$\bar{X}$	range of Scores	No. of Students	∑x	$\bar{X}$
1 - 10	4	22		1- 10	0	0	
11- 20	12	186		11- 20	0	0	
21- 30	8	204		21- 30	3	76.5	
31- 40	6	213	22.4	31- 40	2	71	52.4
41- 50	2	91		41- 50	6	273	
51- 60	0	0		51- 60	12	666	
61- 70	0	0		61- 70	9	589.5	
	32	716			32	1,676	

Source: Field Survey, 2014

Table 4.2 revealed that the students taught with guided-discovery had 4 and 12 respectively in pre-test in the 1-10 and 11-20 ranges while none of the students taught with lecture method had scores in the ranges. Eight (8) students had scores in the range of 21-30 in pre-test, 3 students had scores in post-test. Also 6 and 2 students had scores in the ranges of 31-40 and 41-50 respectively in pre-test while 2 and 6 students had scores in post-test. Finally, none of the students had scores in the ranges of 51-60 and 61-70 in pre-test while 12 and 9 students had scores in post-test. The mean score performance for pre-test stood at 22.4 while post-test was 52.4. Based on this result the researcher concluded that the guided-discovery teaching method influenced the students' performance in teaching principles of accounting, because mean scores of the students increased after they were taught with guided-discovery teaching method

Research Question Two: What are the differences between the female students' performance taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method in Colleges of Education?

Table 4.3 provides summary of the data collected with respect to research question two.

Table 4.3 - mean scores of post-test of business education female students taught with guided-discovery teaching method and those taught with lecture teaching method.

Guided-discovery teaching Method				Lecture Teaching Method			
Range Of scores	No. of Students	∑x	$\bar{X}$	Range of Score	No. of Students	∑x	$\bar{X}$

1 - 10	0	0		1 - 10	0	0	
11- 20	0	0		11- 20	2	31	
21- 30	2	51		21- 30	3	76.5	
31- 40	2	71	51.3	31- 40	3	106.5	45
41- 50	3	136.5		41- 50	2	91	
51- 60	7	388.5		51- 60	6	333	
61- 70	5	327.5		61- 70	4	262	
	19	974.5			20	900	

Source: Field Survey, 2014

Table 4.3 showed that none of the female students taught with guided-discovery had scores in the 1-10 and 11-20 ranges while none of the females taught with lecture teaching method had scores in range of 1-10, and 2 female students had scores in the range of 11-20. Two (2) female students taught using guided-discovery teaching method had scores in the ranges of 21-30 while 3 female students had scores within ranges from those taught using lecture teaching method. From the ranges of 31-40 and 41-50, only 2 and 3 female students had scores from those who were taught using guided-discovery while 3 and 2 respectively had scores from the ranges out of female students taught using lecture teaching method. Finally, 7 and 5 female students had scores in the ranges of 51-60 and 61-70 respectively out of the students taught using guided-discovery teaching method while 6 and 4 female students got scores in these ranges out of the students taught using lecture teaching method. The mean score performance of female students taught using guided-discovery teaching method stood at 51.3 while lecture teaching method was 45. Therefore, the researcher concluded that guided-discovery teaching method influenced female students in teaching principles of Accounting when compared with lecture teaching method.

Research Question Three: What are the differences between the male students' performance taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method in Colleges of Education?

Table 4.4 provides summary of the data collected with respect to research question Three.

Table 4.4 Mean scores of post-test of male students taught using guided-discovery teaching method and those taught with lecture teaching method.

Guided-discovery teaching Method Lecture Teaching Method

Range Of scores	No. of Students	∑x	$\bar{X}$	Range of Score	No. of Students	∑x	$\bar{X}$
1 - 10	0	0		1 - 10	0	0	
11- 20	0	0		11- 20	0	31	
21- 30	1	25.5		21- 30	2	76.5	
31- 40	0	0	54.0	31- 40	1	106.5	49.7
41- 50	3	136.5		41- 50	2	91	
51- 60	5	277.5		51- 60	4	333	
61- 70	4	262		61- 70	3	262	
	13	974.5			12	596	

Source: Field Survey, 2014

Table 4.3 showed that none of the male students taught with guided-discovery had scores in the 1-10 and 11-20 ranges. Also, none of the males taught with lecture teaching method had score in the ranges. A male student taught using guided-discovery teaching method had scores in the ranges of 21-30 while 2 male students had scores within the ranges from those taught using lecture teaching method. From the ranges of 31-40 and 41-50, 0 and 3 male students had scores from those who were taught using guided-discovery while only 1 and 2 male students had scores from the ranges out of students taught using lecture teaching method. Finally, 5 and 4 male students had scores in the ranges of 51-60 and 61-70 respectively out of the students taught using guided-discovery teaching method, while 4 male students got scores in these ranges out of the students taught using lecture teaching method. The mean score performance of male students taught using guided-discovery teaching method was 54, while lecture teaching method was 49.7. From the result, the researcher concluded that guided-discovery teaching method influenced male students in teaching principles of Accounting when compared with lecture teaching method.

Research Question Four: **What are the differences in performance of students taught using guided-discovery teaching method and those taught using lecture teaching method?**

Table 4.5 contains summary of the analysis of data collected with respect to research question four.

Table 4.5 Mean scores of post-test students taught using Guided-discovery teaching method and those taught using Lecture teaching method.

Guided-discovery teaching Method				Lecture Teaching Method			
Range Of scores	No. of Students	∑x	$\bar{X}$	Range of Score	No. of Students	∑x	$\bar{X}$

1 - 10	0	0		1 - 10	0	0	
11- 20	0	0		11- 20	2	31	
21- 30	3	76.5		21- 30	5	127.5	
31- 40	2	71	52.4	31- 40	4	142	46.8
41- 50	6	273		41- 50	4	182	
51- 60	12	666		51- 60	10	555	
61- 70	9	589.5		61- 70	7	458.5	
	32	1,676			32	1,496	

Source: Field Survey, 2014

Table 4.5 summarized the data with regards to research question four. None of the students had scores in the 1-10 range in both guided-discovery and lecture teaching methods. Two (2) students had scores in the range of 11-20 in lecture method, but no students had score in the ranges in guided-discovery method. While 3 students had scores in the 21-30 ranges in guided-discovery teaching method, 5 students had score in this ranges in lecture teaching method. Two (2) and 6 students had scores in the 31-40 and 41-50 ranges in guided-discovery teaching method, 4 and 4 students respectively had scores in the ranges in lecture teaching method. In the ranges of 51-60 and 61-70, 12 and 9 students had scores respectively out of the students taught using guided-discovery while 10 and 7 students had scores in the ranges from the students taught using lecture teaching method. From all indication the mean score for guided-discovery teaching method was 52.4 while lecture teaching method was 46.8. Although both teaching methods influenced the students' performance but when comparing both teaching methods, guided-discovery teaching method influenced the students' performance more than lecture teaching method.

4.3 Testing of Null Hypotheses

The Null hypotheses were tested at 0.05 level of significance. The summary of the results are contained in Tables 4.6, 4.7, 4.8 and 4.9.

Null Hypothesis One: **There is no significant difference between the pre-test and post-test score of students taught principles of accounting using guided-discovery teaching method.**

The effect of Guided-discovery teaching method on business education students' performance in Principles of Accounting was tested. The summary of the analysis are shown in Table 4.6

Table 4.6: Testing the influence of Guided-Discovery on Students' Performance in Principles of Accounting.

Guided-discovery	N	DF	$\bar{X}$	S.D	t-cal	t-crit.	P. Value
Pre-test	32		23	11.1			
		31			13.5	1.8	0.022
Post-test	32		53.2	12			

***** Correlation is significant at the 0.05 level (2-tailed).***

Table 4.6 showed the mean performance of pre-test and post-test of students taught using guided-discovery teaching method was 23 and 53.2 respectively. The standard deviation for pre-test and post-test were 11.1 and 12. The t calculated value was 13.5 which was greater than the r. critical value of 1.8. This means there was significant difference between the pre-test and post-test scores of students taught principles of accounting using guided-discovery teaching method. Thus the null hypothesis was rejected.

Null Hypothesis Two: **There is no significant difference between the performance of female students taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method**

Analysis of the difference between the performance of female students taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method summarized in table 4.7

Table 4.7: Test differences between female students performance taught principles of accounting using Guided-Discovery and those taught using lecture teaching method

Female	N	DF	$\bar{X}$	S.D	t- cal	t- crit.	P. Value
Guided-Discovery	19		53.3	13			
		18			4.9	1.73	0.000
Lecture Method	20		45.1	16.1			

***** Correlation is significant at the 0.05 level (2-tailed).***

Table 4.7 revealed that mean performance for female taught principles of accounting using guided-discovery teaching method was 53.3, while lecture teaching method was 45.1. The standard deviation for guided-discovery was 13 and lecture teaching method was 16.1, while t. calculated value was 4.9. The result showed that the t. calculated value is greater than t. critical value of 1.73. Therefore, the null hypothesis which stated that, there is no significant difference between the performance of female students taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method, was thus rejected.

Null Hypothesis Three: **There is no significant difference between the performance of male students taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method.**

Analysis of the difference between the performance of male students taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method summarized in table 4.8

Table 4.8: Test difference between male students performance taught principles of accounting using Guided-Discovery and those taught using lecture teaching method

Male	N	DF	$\bar{X}$	S.D	t- cal	t- crit.	P. Value
Guided-Discovery	13		53.3	10.2.			
		11			1.52	1.80	0.157
Lecture Method	12		50.6	14.5			

*****. Correlation is significant at the 0.05 level (2-tailed).***

Table 4.8 showed that the mean performance and standard deviation of male students taught using guided-discovery teaching method were 53.3 and 10.2 respectively, while mean performance and standard deviation of male taught using lecture teaching method were 50.6 and 14.5 respectively. The t. calculated value was 1.52. From the analysis the null hypothesis stating that, there is no significant difference between the performance of male students taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method, was thus retained because t. calculated value of 1.52 is lesser than t. critical value of 1.8.

Null Hypothesis Four: There is no significant difference between the performance of business education students taught using guided-discovery and lecture teaching method in principles of accounting.

Analysis of the difference between the performance of Guided-Discovery and Lecture teaching methods is as summarized in Table 4.9

Table 4.9: t-test on Guided-Discovery and Lecture Teaching Methods on students' performance in Principles of Accounting

Groups	N	DF	$\bar{X}$	S.D	t. cal	t. crit.	P. Value
Guided-Discovery	32		53.2	12			
		31			2.9	1.7	0.006
Lecture Method	32		47.8	15.7			

*****. Correlation is significant at the 0.05 level (2-tailed).***

Table 4.9 showed that the mean performance was 53.2 for guided-discovery teaching method, while mean performance for lecture teaching method was 47.8. The standard deviation for guided-discovery was 12, while lecture teaching method was 15.7. The t-calculated value of 2.9 was greater than t. critical value of 1.70. This means there was a significant difference between guided-discovery teaching method and lecture teaching method on students' performance in Principles of Accounting. Therefore, the null hypothesis which stated that, there is no significant difference between the performance students taught using guided-discovery and lecture teaching methods, was thus rejected.

4.4 Summary of Major Findings

The study established that:

1. Guided-discovery teaching method has influence on students' performance in Principles of Accounting in Colleges of Education with P. value 0.022.
2. Guided-discovery teaching method has influence on female students' performance in principles of accounting because when compared, female student taught with guided-discovery teaching and those taught using lecture method, the result showed that female students taught with guided discovery performed better than female students taught using lecture teaching method with p. value 0.000
3. Lecture teaching method has influence on male students' performance in principles of accounting because male students taught using guided-discovery teaching method performed below those taught using lecture teaching method with P. value 0.157.
4. There are differences between performance of students taught with guided-discovery and lecture teaching methods with p. value of 0.000. The result showed that guided-discovery has positive influence on teaching and learning Principles of Accounting.

4.5 Discussion of Major Findings

Findings of the study showed that Guided-discovery has influence on business education students' performance in Principles of Accounting. This finding is in line with Luntungan (2012) who reports that guided-discovery teaching method has a significant effect on students' academic performance. On a final note regarding the subject, this researcher is of the strong belief that guided-discovery has positive effects on business education students' performance in Principles of Accounting at Colleges of Education especially at the introductory level. This is because the null hypothesis one tested the influence of guided-discovery teaching method on performance of business education students' in principles of Accounting, at 0.05 level of significance. The results shown in Table 4.6 revealed business education students' mean performance to be 53.2. The t calculated value was 31.5 which was greater than t. critical of 1.70 which caused the hypothesis to be rejected.

Null hypothesis two was formulated and tested to determine the difference between the performances of female students taught principles of accounting using guided-discovery teaching method and those taught using lecture teaching method. The hypothesis tested using t-test at 0.05 level of significance and the results were shown in the table 4.7. The female students' performance revealed that t. calculated value 4.9 was greater that t. critical value of 1.73. Thus the null hypothesis was rejected. The result showed that guided-discovery teaching method had influence on female students' performance when compared to lecture teaching method.

In table 4.8, the t-test results showed that the null hypothesis three tested at 0.05 level of significance. The t. calculated value was 1.52 against t. critical value 1.80. The result showed that both teaching methods had influence on male students' performance. Also the analysis showed that no significant difference exited between the performances of male students taught with guided-discovery teaching method when compared with the performance of the female taught using guided-discovery teaching method. In line with this argument, Norman (2003) found that gender was not significant as male students did not perform better than their female counterparts. On the contrary, Sayel and Anwar (2004) reported that gender was a significant variable in students' performance in Principles of Accounting.

Null hypothesis four was raised and analyzed to compare whether there was difference between the students' performance taught using guided-discovery and lecture teaching methods in Principles of Accounting in state Colleges of Education. The t-test statistical tool was used to test the null hypothesis and the results were shown in the table 4.9. It was tested at 0.05 level of significance. From the table, the calculated t-value 2.92 was greater than the critical t-value 1.7. The result indicated that there was difference between the business education students' performance taught with guided-discovery and those taught with lecture teaching methods thus, the null hypothesis was thus rejected. These findings agreed with Luntungan (2012) who reported that both guided-discovery and lecture teaching methods had significant effects on students' academic performance but those in the Guided-discovery study group performed better.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter is presented under the following sub-headings:

5.1 Summary

5.2 Conclusions

5.3 Recommendations

5.4 Suggestions for the Further Study

5.1 Summary

The major objective of the study was to assess the influence of guided-discovery, lecture method and gender on business education students' performance in Principles of Accounting in state Colleges of Education South-Western Zone, Nigeria. The study had four specific objectives; four research questions with four null hypotheses were formulated for the study; literatures related to the study were reviewed in which six empirical studies were examined. From the empirical studies it was learnt that there were divergent views on what affected students' performance in general and in accounting particular.

The research design was a quasi-experimental research. The population for the study comprised One thousand Seven hundred and Sixty-four (1764) students from Six State Colleges of Education namely: Adeniran Ogunsanya College of Education, Emmanuel Alayande College of Education, College of Education Ikere-Ekiti, Osun State College of Education Ila-Orangun, Osun State College of Education Ilesha and Tai Solarin College of Education Ijebu Ode. One College of Education was selected among the six state Colleges of Education with sample size of sixty-four students. Five weeks of teaching was carried out in the selected College of Education, which centered on Depreciation and Bank Reconciliation Statement Accounts. Post-test was administered after five weeks of teaching the course.

Instructional Package for Principles of Accounting (IPPA) and Principles of Accounting Achievement Test (PAAT) were used for collecting data for the study. IPPA was prepared for five weeks of lecture which involved Guided-discovery and lecture teaching methods. A principle of Accounting Achievement Test (PAAT) designed by the researcher was administered to business education students after five weeks of lecture. The data collected were subjected to analysis. The validity of the instrument was ascertained, and a pilot study was carried out. The reliability of the instrument was also determined.

Three null hypotheses were rejected while one null hypothesis was retained. The following were the major findings:

1. Guided-Discovery teaching method has positive influence on business education students' performance in principles of Accounting.
2. Guided-Discovery teaching method has influence on male and female students' performance in principles of accounting in colleges of education.
3. Lecture teaching method has influence on male business education students' performance in teaching and learning principles of accounting.
4. There is a difference between the performance of business education students taught with guided-discovery teaching method and those taught with lecture teaching method.

5.2 Conclusion

Based on the findings from the result of the analysis presented in chapter four, the following conclusions were drawn:

It was concluded that Guided-discovery teaching method is better and more effective in teaching and learning Principles of Accounting and this can enhance business education students' performance in Principles of Accounting. Also, gender does not have effect on students' performance. Both male and female can perform better when proper teaching methods were used.

5.3 Recommendations

The following recommendations were made based on the findings of the study:

1. Educational sector should be improved through training of teachers in the use of effective teaching method in the classroom, especially in the use of Guided-discovery teaching method in teaching Principles of Accounting.
2. Incentives such as scholarships, grants or loans should be made available by the government to research students and institutions to carry out more study on effective strategies in classroom instructions in general, and particularly, more

studies should be done on various techniques of using guided-discovery teaching method in teaching and learning process in the classroom.

3. Professional bodies in collaboration with National Commission for Colleges of Education (NCCE) should organize seminars, workshops and in-house training for teachers and textbook authors in the use of Guided-Discovery teaching method in principles of accounting and other effective teaching methods in other courses which can be applied in colleges of education in order to enhance better performance in Principles of Accounting Colleges of Education.

5.4 Suggestions for Further Study

The researcher recommends that research studies should be carried out in the following areas:

1. Impact of qualification and experience of accounting teachers on 100 level business education students' performance in principles of accounting.
2. Relationship between guided-discovery and problem solving teaching methods and their impact on business educations students' performance in principles of accounting.

REFERENCES

Abbitt, J. T. (2011). Measuring technological pedagogical content knowledge in preservice teacher education: A review of current methods and instruments. *Journal of Research on Technology in Education, 43*(4), 281-300.

Ahles, P. M., & Contento, J. M. (2006). Explaining helping behavior in a cooperative learning classroom setting using attribution theory. *Community College Journal of Research & Practice*, *30*(8), 609-626.

Akintelure, S.L. (1998). Comprehensive Financial Accounting for Senior Secondary Schools: Lagos, Johnson publisher Limited.

Akintelure, S.L. and Oguobi, J.I. (2003). Comprehensive Financial Accounting for Senior Secondary Schools: Lagos, Johnson publisher Limited.

Akkuzu, N., & Akcay, H. (2011). An effective model to increase student attitude and achievement: Narrative including analogies. *US-China Education Review, A5,* 612-623.

Aliyu, M.M. (2001). Business Education in Nigeria (Trends and Issues): Offa, Goshen Print Media Ltd.

Aliyu, M.M. (2006). Subject Method for Business Teachers: Ilorin; More Hope Nigeria Enterprise.

Allen, P. E., & Cockman, J. E. (2009). The "RIPL" effect on learning gains in lecture. *AIP Conference Proceedings, 1179*(1), 73-76.

Asaolu, A. (2002).Modern Book-keeping and Accounts: Ibadan; Calabeks Publishers

Azubuike, A.S. (2005). Inquiry and Problem Solving Approach: Integrated Science Education Series.

Bell, R. L., Quazi, R., & Jasper, J. (2004). Mixed method instruction across business disciplines. *Southwest Business Administration Journal, 1*(1), 1-27. Retrieved from http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch_SearchValue_0=ED490804&ERICExtSearch_SearchType_0=no&accno=ED490804

Bennett, J., Hogarth, S., Lubben, F., Campbell, B., & Robinson, A. (2010). Talking science: The research evidence on the use of small group discussions in science teaching. *International Journal of Science Education, 32*(1), 69-95.

Berrett, D. (2012). Harvard conference gives teaching a jolt based on how students learn. *Chronicle of Higher Education*, *58*(24), p. A23.

Berry, W. (2008). Surviving lecture: A pedagogical alternative. *College Teaching*, *56*(3), 149-153.

Burke, L. A., James, K., & Ahmadi, M. (2009). Effectiveness of PowerPoint-based lectures across different business disciplines: An investigation and implications. *Journal of Education for Business*, *84*(4), 246-251.

Campbell, J., & Mayer, R. E. (2009). Questioning as an instructional method: Does it affect learning from lectures? *Applied Cognitive Psychology*, *23*(6), 747-759.

Cantrell, D. (2004). Using a variety of teaching method s and strategies; retrieved from goggle search hppt/goggle/doi.10.234/12sde/2wes/2345609/pdf.

Clark, R. E. & Elen, J., (2006). When less is more: Research and theory insights about instruction for complex learning. In R. E. Clark & J. Elen (Eds.) Handling Complexity in Learning Environments: Research and Theory. London: Elsevier. 283-295.

Coskun, H. (2011). The effects of group size, memory instruction, and session length on the creative performance in electronic brainstorming groups. *Educational Sciences: Theory and Practice*, *11*(1), 91-95.

Covill, A. E. (2011). College students' perceptions of the traditional lecture method. *College Student Journal*, *45*(1), 92-101.

Dada, A. (2000). The Effects of two methods of teaching on achievement in the foreign language beginners' class: Ibadan, University of Ibadan press.

Debonis, R. and Gigliobiano, A. (2000). The Origin of Financial Accounts in the United States and Italy: Copeland, Baffi and the institutes.

Doğru and Kalender (2007). "Applying the Subject 'Cell' Through Constructivist Approach during Science Lessons and the Teacher's View". *Journal of Environmental & Science Education* **2** (1): 3–13.

Doll, B., Spies, R. A., LeClair, C. M., Kurien, S. A., & Foley, B. P. (2010). Student perceptions of classroom learning environments: Development of the class maps survey. *School Psychology Review*, *39*(2), 203-218.

Eastman, J., Iyer, R., & Eastman, K. L. (2011). Business students' perceptions, attitudes, and satisfaction with interactive technology: An exploratory study. *Journal of Education For Business*, *86*(1), 36-43.

Ediger, M. (2011). Collaboration versus individual endeavors in the curriculum *Education, 132*(1), 217-220.

Eskew, R.K. and Faley, R.H. (2002). Some Determinants of Students' Performance in the First University Level Financial Accounting Course. The Accounting Review, 103 (2)

Feldman, K. A. & Newcomb, T. M. (1973). *The impact of college on students***.** San Francisco, CA: Jossey-Bass.

Gibbs, G., & Jenkins, A. (Eds.). (1992). *Teaching large classes in higher education: How to maintain quality with reduced resources*. London, UK:

Gouch, D. (2009). Investigating Critical and Contemporary Issues in Education/Student Academic Performance. A case study of Senior Secondary Schools in the Kassena-Nankana District . *Journal of Social Sciences 4(4)*

Guthrie, J, Kolb, D and Glaserfeld, E. (2004). "Increasing Reading Comprehension and Engagement through Concept-Oriented Reading Instruction". *Journal of Educational Psychology* 96 (3): 403–423.

Hines, R.D. (2003). Financial Accounting; Communicating Reality, We Construct Reality Accounting Organization and Society, 13(3).

Hmelo-Silver,Duncan and Chinn (2007). "Scaffolding and Achievement in Problem-Based and Inquiry Learning: A Response to Kirschner, Sweller, and Clark (2006)". *Educational Psychologist* 42 (2): 99–107. doi:10.1080/00461520701263368.

Hosal-Akman, N., & Simga-Mugan, C. (2010). An assessment of the effects of teaching methods on academic performance of students in accounting courses. *Innovations in Education and Teaching International*, *47*(3), 251-260.

Ibe, H.N. (2013). Effects of Guided-Inquiry and Expository Teaching Methods on Senior Secondary Schools Students' Performance in Biology in Imo State: *Journal of Education Research and Behavioral Sciences 2(4) pp. 51-57.*

Ibrahim, S. (2008). Business Education and Nigeria's National Development in the 21st Century. *Journal of Educational Research and Development.*

Ibrahim, S. (2011). Impact of Accounting Background, Gender, and Motivation on Performance of Business Education Students in Introductory Accounting in Federal Universities in Nigeria. An unpublished Doctorate Dissertation presented to the School of Postgraduate Studies, Ahmadu Bello University, Zaria

Igben, R.O. (2007). Financial Accounting Made Simple: Lagos; ROI Publishers.

Ihekwoaba, M.E. (2006). Office Practice and Management: Lagos, Mukugamu and brother enterprise.

Jones, S. E. (2007). Reflections on the lecture: outmoded medium or instrument of inspiration? *Journal of Further & Higher Education*, 31(4), 397-406.

Kagan, S. (1990). The structural approach to cooperative learning. *Educational Leadership*, 47(4), 12-15.

Kanselaar,G. (2002). Constructivism and socio constructivism. Retrieved 19 February 2014 from http://www.unhas.ac.id/hasbi/LKPP/Hasbi-KBK-SOFTSKILL-UNISTAFF-SCL/Mental%20Model/Constructivism-gk.pdf

Kauffman, S. (2012). Stop lecturing students. *Maclean's, 125*(6), 52-53.

Kim (2005). "The Effects of a Constructivist Teaching Approach on Student Academic Achievement, Self-Concept, and Learning Strategies". *Asia Pacific Education Review* 6 (1): 7–19.

Kirschner, P.A., Sweller, J. and Clark, R.E. (2006). Why minimal guidance during instruction does not work? An analysis of the failure of constructivist, discovery, problem based, experimental and inquiry based teaching. *Educational Psychologist Journal41 (2) 75-86*

Kobaland, D. and Musek, J. (2001). Self-Concept and Academic: Slovenia and France. Personality and Individual Differences: Department of Psychology, University of Ljubljana, Slovenia

Litke, R. A. (1995). Learning lessons from large classes: Student attitudes toward effective and ineffective methods in large classes. Paper presented at the Annual Meeting of the Western States Communication Association Portland, OR, February 10-14, 1995. Retrieved from http://www.eric.ed.gov /ERICWebPortal/search/detailmini.jsp?_nfpb=true&_&ERICExtSearch _SearchValue_0=ED384088&ERICExtSearch_SearchType_0=no&accno =ED384088

Longe, O.A. and Kazeem R.A. (2012). Essential Financial Accounting for Senior Secondary Schools: Ogun, Tonad Publishers Limited.

Luntungan, R. (2012). Effects of Teaching Methods and Students' Attitude on Academic performance: *International Journal* 15 (2) pp. 42-56.

Mayer, R.E (2003). Learning and Instruction; Pearson Education, Inc: Upper Saddle River, 287-288

Mayer, R.E. (2004). The case for guided methods of instruction. American Psychologist. 59 (1), 14-19

Mayer, R.E. (2002), The Promise of Educational Psychology; Teaching for Meaningful Learning. Vol. II Pearson Education, Inc. New Jersy.

McCornac, D. C., & Phan Thuy, C. (2005). Pedagogical suggestions for teaching business and economics in Vietnam. *Journal of Education for Business, 81*(2), 81-84.

McLeish, K. (2009). *Attitude of students towards cooperative learning methods at Knox community college: A descriptive study* (Master's thesis). University of Technology, Jamaica.

Meyer, D. L. (2009). "The Poverty of Constructivism". *Educational Philosophy and Theory* 41 (3): 332–341. doi:10.1111/j.1469-5812.2008.00457.x.

Mkpa, M.D. (2009). Teaching Methods and Strategies Curriculum Theory and Practice; Delta, Kushunbu publishers.

Modebelu, M.N. (2007). Teacher Work Behavior under female principals administration: *Nigeria Journal of Educational Management* 6(4) 1-10.

Modebelu, M.N. and Duvie, A.N. (2012). Inonovation Methods and Strategies for Effective Teaching and Learning.

Mohammed, U.T. Gayus, B.J., Oscar, I. and Solomon, R.J. (2002). Fundamentals of Vocational and Technical Education in Nigeria; Kastina, Gbaski publishers.

Nagel, P. (2008). Moving beyond lecture: Cooperative learning and the secondary social studies classroom. *Education, 128*(3), 363-368.

National Commission for Colleges of Education (2012). Minimum Standard for Nigeria Certificate in Education.

National Policy on Edcuation (2004). Abuja. NERDC Printing Press

Norman, G. (2003). Analysis of Factors Leading to Success in Intermediate Accounting. *Journal of Academy of Business and Economics*, 2 (1) 1-4

Oghenevwede, O.E. (2010). Effects of Discovery and Inquiry Approaches in Teaching and Leaning of Biology on Secondary Schools Students' Performance in Delta State, Nigeria: *Journal of Research in Education and Society 1(1) 30-39*

Ogunu, M.A. (2000). Strategies for Effective Supervision of Instruction in UBE Programme.

Omateye, B. J. (2007). The discussion teaching method: An interactive strategy in tertiary learning. *Education, 128*(1), 87-94.

Osuala, E.O. (2002). Principle and Practice of Business Education: Onisha, Urnorum Obosi Pacific.

Oyovwi, E.O. (2007). Effects of discovery and inquiry approaches on performance of Students in biology in secondary schools. Unpublished M.ED Thesis, Delta State University, Abraka.

Pascarella, E. T. & Trenzini, P. T. (2005). *How college affects students.* San Francisco, CA: Jossey-Bass.

Raymond, U (2005). A comparative Analysis of Two Methods of Teaching Financial Accounting at Senior Secondary School; hppt/file///F:/p/comparative analysis thesis 1.htm. retrieved on 17/6/2013.

Rothstein, R. (2000). Finance Fungibility: Investing Relative Impacts of Investments in Schools and Non-school Educational Institutions to Improve Students' Achievement. Washington. Dc: Centre on Educational Policy Publications.

Sadi, Ö., & Cakiroglu, J. (2011). Effects of hands-on activity enriched instruction on students' achievement and attitude toward science. *Journal of Baltic Science Education, 10*(2), 87-97.

Sayel, R. and Anwar, Q. (2004). Determinants of Students' Performance in Introductory Accounting Courses. *Journal of King Saud University Administrative Scienc*e, 6 (2), 65-80

Schul, J. E. (2011). Revisiting an old friend: The practice and promise of cooperative learning for the twenty-first century. *Social Studies*, *102*(2), 88-93.

Sharan, Y. (2010). Cooperative learning for academic and social gains: Valued pedagogy, problematic practice. *European Journal of Education*, 45(2), 300-313.

Slavin, R. E. (1990). *Cooperative learning.* Englewood Cliffs, NJ: Prentice-Hall.

Slepian, S. (2005). Behavioural Aspect of the Inflation Accounting Controversy: Accounting and Business Research, Spring.

Svinicki, D. M. (2000). *New directions in learning and motivation*. San Francisco, CA: Jossey-Bass.

Tarim, K. (2009). The effects of cooperative learning on preschoolers' mathematics problem-solving ability. *Educational Studies in Mathematics*, *72*(3), 325-340.

Tormey, R., & Henchy, D. (2008). Re-imagining the traditional lecture: an action research approach to teaching student teachers to 'do' philosophy. *Teaching In Higher Education*, *13*(3), 303-314.

Udoh, A.A. (2002). Effects of Lecture Period and Automative Device on the Performance of Lower Achievers in Introductory Accounting in Senior Secondary Schools, Kaduna. An unpublished Doctorate Dissertation presented to the School of Postgraduate Studies, Ahmadu Bello University, Zaria.

Udoh, A.A. (2004). Fundamentals of Financial Accounting. Zaria; Isola Olu and sons.

Udoh, A.A. (2010). Business Education as a Tools for Economic Empowerment and Investment Opportunities; *Journal of Business Educational Research and Development* (JOBERD).

Ukoje, E.S. (2010) The Role of Business Education in the Achievement of the Yar'adua administrations Seven points Agenda: *Journal of Business Educational Research and Development (JOBERD).*

Umar, R.T. (2010). Comparative Analysis of Exposition and Inquiry Methods of Teaching and Learning Financial Accounting in Senior Secondary Schools in Kaduna State. Unpublished M.ED. (Business Education) Thesis submitted to the School of Postgraduate Studies, Ahmadu Bello University, Zaria.

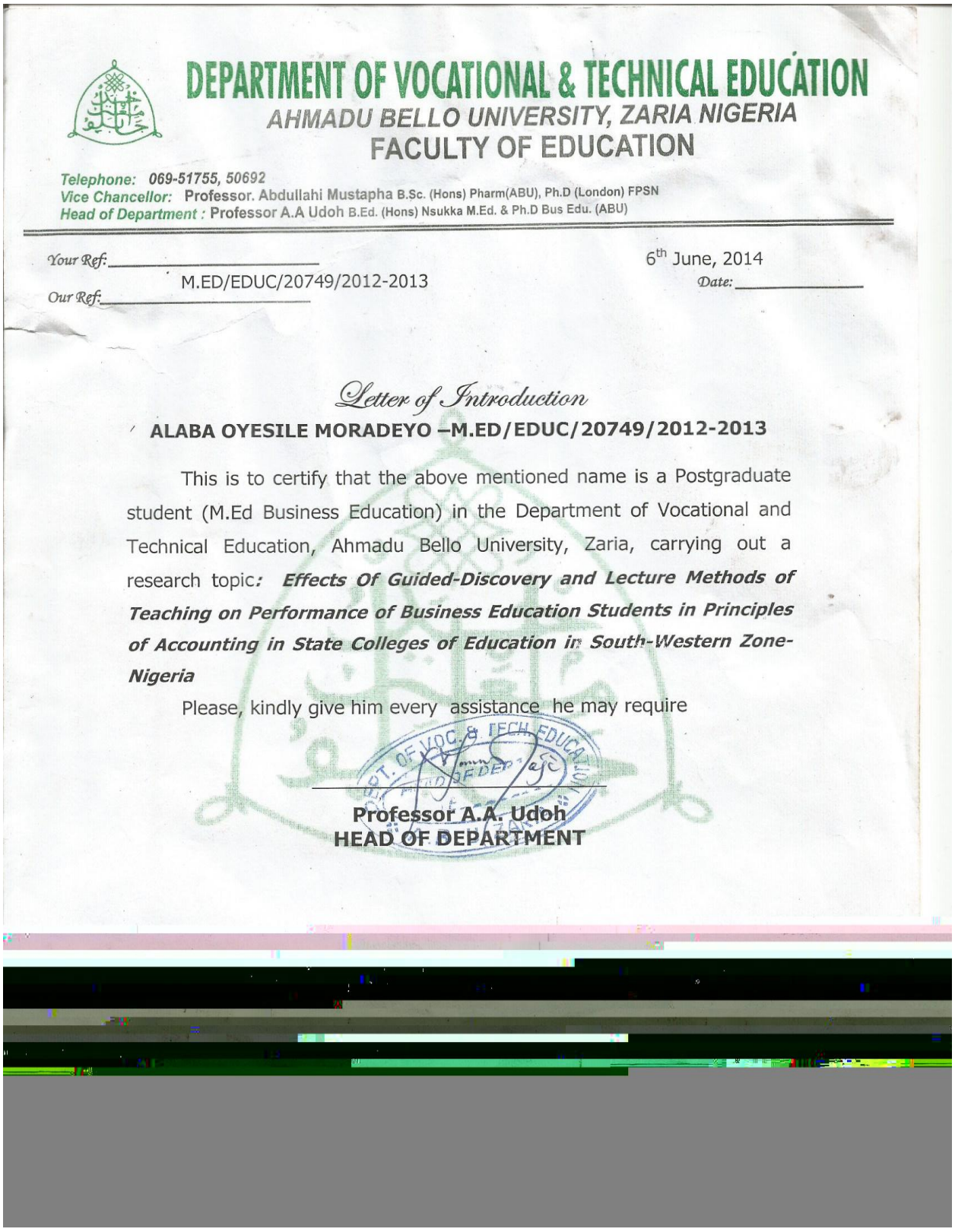
Webb, N. M. (2009). The teacher's role in promoting collaborative dialogue in the classroom. *British Journal of Educational Psychology*, *79*(1), 1-28.

Weldy, T. G., & Turnipseed, D. L. (2010). Assessing and improving learning in business schools: Direct and indirect measures of learning. *Journal of Education for Business, 85*(5), 268-273

West African Examination Council (2000). Chief Examiners report: May/June, West African Senior Schools Certificate Examination Lagos; WAEC.

Xu, Y., & Yang, Y. (2010). Student learning in business simulation: An empirical investigation. *Journal of Education for Business, 85*(4), 223-228.

APPENDIX A



DEPARTMENT OF VOCATIONAL & TECHNICAL EDUCATION

AHMADU BELLO UNIVERSITY, ZARIA NIGERIA

FACULTY OF EDUCATION

Telephone: 069-51755, 50692
Vice Chancellor: Professor. Abdullahi Mustapha B.Sc. (Hons) Pharm(ABU), Ph.D (London) FPSN
Head of Department : Professor A.A Udoh B.Ed. (Hons) Nsukka M.Ed. & Ph.D Bus Edu. (ABU)

Your Ref: _____ 6th June, 2014

Our Ref: M.ED/EDUC/20749/2012-2013 *Date:* _____

Letter of Introduction

ALABA OYESILE MORADEYO –M.ED/EDUC/20749/2012-2013

This is to certify that the above mentioned name is a Postgraduate student (M.Ed Business Education) in the Department of Vocational and Technical Education, Ahmadu Bello University, Zaria, carrying out a research topic*: **Effects Of Guided-Discovery and Lecture Methods of Teaching on Performance of Business Education Students in Principles of Accounting in State Colleges of Education in South-Western Zone-Nigeria***

Please, kindly give him every assistance he may require

Professor A.A. Udoh
HEAD OF DEPARTMENT

APPENDIX B

(LESSON PLAN ON GUIDED-DISCOVERY TEACHING METHOD)

Name of Teacher	Moradeyo A.O
School	Emmanuel Alayande College of Education, Oyo
Class	100-level
Average Age	18 years
Subject	Principles of Accounting
Topic	Bank Reconciliation Statement
Method of Teaching	Guided-discovery Method
Duration	Two hours

General Objective: To teach students how to prepare bank reconciliation statement and adjusted cash book

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

a. define bank reconciliation statement
b. state the items that can cause disagreement between cash book and bank statement
c. prepare adjusted cash book with bank reconciliation statement

Instructional Materials Visual material (real object with chalkboard)

Previous knowledge: Students have been taught double entry principles and cash book. Which is the basis upon which the bank reconciliation are drawn up

Introduction: The teacher introduces the lesson by reviewing the knowledge of cash book and relate it with the bank reconciliation statement which is the new topic

Presentation: The teacher will present his lesson through the following steps:

Step 1: The teacher defines the bank reconciliation statement and explains what is meant by bank reconciliation statement.

Step 2: The teacher states and explains the items that can cause disagreement on cash book and bank statement such as: unpresented cheques, uncredited cheques, bank charges, dishonored cheques, credit transfer e.t.c.

Step 3: The teacher gives working example by preparing bank reconciliation statement with adjusted cash book

Evaluation: The teacher asks the students the following questions in order to test the level of their understanding:

a. What is bank reconciliation statement?
b. Mention and explain six (6) items that can cause disagreement between cash book and bank statement

Summary: The teacher briefly goes over the lesson stressing the important point from the topic taught

Conclusion: The teacher concludes the lesson by giving the students assignments on the topic

Assignment: Prepare adjusted cash book and bank reconciliation statement using Comprehensive Financial Accounting Textbook page 82. Exercise7.2

Reference Book: Comprehensive Financial Accounting Textbook for "A" level by Akintelure and Oguobi

APPENDIX C

(LESSON PLAN ON LECTURE TEACHING METHOD)

Name of Teacher	Moradeyo A.O
School	Emmanuel Alayande College of Education, Oyo
Class	100-level
Average Age	18 years
Subject	Principles of Accounting
Topic	Bank Reconciliation Statement
Method of Teaching	Lecture Method
Duration	Two hours
General Objective:	To teach students how to prepare bank reconciliation statement and adjusted cash book
Behavioural Objectives:	At the end of the lesson, the students should be able to:

a. define bank reconciliation statement
b. state the items that can cause disagreement between cash book and bank statement
c. prepare adjusted cash book with bank reconciliation statement

Instructional Materials:	Textbook and chalkboard
Previous knowledge:	Students have been taught double entry principles and cash book. Which is the basis upon which the bank reconciliation are drawn up
Introduction:	The teacher introduces the lesson by refreshing the knowledge of cash book and relates it with the bank reconciliation statement which is the new topic
Presentation:	The teacher will present his lesson through the following steps:
Step 1:	The teacher defines the bank reconciliation statement and explains what is meant by bank reconciliation statement

Step 2: The teacher states and explains the items that can cause disagreement on cash book and bank statement such as: un-presented cheques, un-credited cheques, bank charges, dishonored cheques, credit transfer e.t.c.

Step 3: The teacher gives format on bank reconciliation statement with adjusted cash

Evaluation: The teacher asks students the following questions in order to test the level of their understanding:

a. What is bank reconciliation statement?
b. Mention and explain six (6) items that can cause disagreement between cash book and bank statement

Summary: The teacher briefly goes over the lesson stressing the important points from the topic taught

Conclusion: The teacher concludes the lesson by giving the students assignments on the topic

Assignment: Prepare adjusted cash book and bank reconciliation statement using Comprehensive Financial Accounting Textbook page 82. Exercise7.2

Reference Book: Comprehensive Financial Accounting Textbook for "A" level by Akintelure and Oguobi

APPENDIX D

PRE-TEST

1. The bank column in the cash book shows a credit balance of #1,000. This means
(a) A total payment of #1,000
(b) A gross receipt of #1,000
(c) A left over of #1,000 in the bank

(d) An overdraft of #1,000

2. Which of the following belong to nominal ledger?
   (a) Creditors' account
   (b) Debtors' Account
   (c) Salaries Account
   (d) Fixtures Account

3. The number of times a firm sells and replenishes its average stock in a given period is know as
   (a) Rate of turnover
   (b) Total average stock
   (c) Cost of sales
   (d) Stock turn

4. Which of these documents will be used to record entry on the credit side of bank column cash book
   (a) Cheque counterfoil
   (b) Duplicate copy of a bank teller
   (c) A cheque leaflet
   (d) A bank pass book

5. The sale day book will shows goods sold
   (a) For cash and credit
   (b) For cash
   (c) On credit
   (d) To wholesalers

6. When a proprietor withdraws cash from bank for office use the entries would be
   (a) credit-Cash Account, Debit-Bank Account
   (b) Debit-Cash Account, Credit-Bank Account
   (c) Debit-Office Account, Credit-Bank Account
   (d) Debit-Drawing Account, Credit- Bank Account

7. A fund established for the payment of minor expenses is
   (a) Cash discount
   (b) Cash flow
   (c) Accumulated fund
   (d) Petty cash

8. Purchases in Accounting refer to goods bought for
   (a) Resale
   (b) Repair
   (c) Decorating office
   (d) Owners' use

9. The concept of double entry book-keeping stated that
   (a) If you receive goods on credit the seller becomes your credits
   (b) For every debt entry, there must be a corresponding credit entry
   (c) One party receives and another party gives value
   (d) Purchases and sales are stated separately

10. Impersonal Real Accounts include (i) expenditure on telephone (ii) Motor Vehicles (iii) expenses on telephone (iv) Land and Building
   (a) ii and iv
   (b) I, ii and iii
   (c) ii, iii and iv
   (d) I and iv

11. When buyer returns damage goods to the seller the buyer receives a
   (a) proforma invoice
   (b) Credit note
   (c) Debit note
   (d) Goods return note

12. Liquid capital is a business means
   (a) All current assets of a given balance sheet
   (b) Excess of current assets over current liabilities
   (c) All assets are convertible into cash
   (d) The portion of that asset that could be turned into liquid

13. A subsidiary record is a book
   (a) Found in the ledger
   (b) Of subsidiary entries
   (c) Of final entry
   (d) Of original entry.

14. When wrong amount is entered on the debit and credit sides this can be refer to as error of
   (a) Original entry
   (b) Complete reversal
   (c) undercast
   (d) Compensating

15. Accounts can be classified into
   (a) 3
   (b) 4
   (c) 1
   (d) 2

16. The amount given to petty cahier is called
   (a) Cash

(b) Float
(c) Money
(d) Credit

17. The process of recording classifying, measuring, interpreting, communicating financial data of an organization known as
    (a) Book-Keeping
    (b) Costing
    (c) Accounting
    (d) Accountant

18. When wrong classes of accounts are mistakenly posted this called error of
    (a) Omission
    (b) Principle
    (c) Compensating
    (d) Cash book

19. Ledger can be define as
    (a) The final destination of all transactions in the subsidiary book
    (b) Entry in which recording are made in chronological order
    (c) It is used for opening entries
    (d) Correction of errors.

20. Which account used to record the difference on trial balance temporarily until the errors are detected and corrected
    (a) Error's Account
    (b) Assets Account
    (c) Owners Account
    (d) Suspense Account.

APPENDIX E

PRE-TEST (ANSWERS)

(1) D

(2) C

(3) A

(4) B

(5) C

(6) B

(7) D

(8) A

(9) B

(10) A

(11) C

(12) B

(13) D

(14) B

(15) D

(16) B

(17) C

(18) B

(19) A

(20) D

1mark x 20 options = 20 marks

APPENDIX F

POST-TEST

Question 1: The bank columns in the cash book of Kamara for the month of April 2005 and the bank statement are as follows:

₦	Cash Book	₦

Date	Particular	Amount
1/4	Balance b/f	106
9/4	cheque from Jane	740
15/4	cheque Turay	978
30/4	cheque Henry	393
		2,217
1/5	Balance b/d	298

Date	Particular	cheque No	Amount
4/4	Kaikai	101	214
4/4	Hassan Plc	102	416
10/4	Kadie	103	370
21/4	City Council	104	116
21/4	Brima	105	336
25/4	Cessay	106	183
28/4	Kargbo	107	284
30/4	Balance c/d		298
			2,217

BANK STATEMENT

Date	Particular	Debit	Credit	Balance
¼	Balance b/f	-		106 (CR)
4/4	Standing Order	140		34 (DR)
10/4	Credit Transfer	-	740	706 (CR)
11/4	Cheque No. 101	214	-	492 (CR)
16/4	Cheque No. 103	307	-	185 (CR)
18/4	Investment Interest		772	957 (CR)
22/4	Cheque No. 104	116	-	841 (CR)
24/4	Cheque No. 105	336	-	505 (CR)
28/4	Direct Debit	250	-	255 (CR)
30/4	Bank Charges	54	-	201 (CR)

Additional Information:

(a) The correct figure for cheque No. 103 is ₦307 instead of ₦370

(b) The direct debit of ₦ 250 was a monthly subscription payment made on behalf of Samara another customer of the bank, but was debited in error to Kamara's account.

You are require to:

(i) Update the Cash Book to show the correct cash balance as at 30th April, 2005

(ii) Prepare a Bank Reconciliation Statement as at 30th April, 2005

Question 2: Morality Nigeria Limited bought Machinery @ rate of ₦ 250,000 with life span of 4 years and will be disposed @ rate of ₦ 50,000. Calculate depreciation for the years and prepare all necessary books of Account using straight line method.

APPENDIX G

POST- TEST (ANSWERS)

Dr. Kamara Adjusted Cash Book Cr.

Balance b/f	298	Standing Order	140
Investment	772	Bank Charges	54
Overcast	63	Balance c/d	939
	1133		1133
Balance b/d	939		

Bank Reconciliation Statement

Balance as per Adjusted Cash Book			939
Add Unpresented Cheques:	Hassan	416	
	Cesay	183	
	Kargbo	284	883
			1822
Less Un-credited Cheques:	Turay	978	
	Henry	393	(1371)
			451
Less Bank Error			(250)
Balance as per bank statement.			201

Question 2

Morality Group of Company Depreciation Account

Workings

Formular: $\frac{\text{Cost – Scrap Value}}{\text{No of Years}}$

$\frac{250{,}000 - 50{,}000}{4}$

$\frac{\#200{,}000}{4} = \#50{,}000$

Dr.		Machinery Account			Cr.
1/1/2006	Cash	250,000	Balance c/d		250,000
Balance b/d		250,000			

Dr.		Provision for Depreciation			Cr.
31/1/2006	balance c/d	50,000	31/12/2006	profit and loss	50,000
31/12/2007	Balance c/d	100,000	1/1/2007	balance b/d	50,000
			31/12/2007	profit and loss	50,000
		100,000			100,000
31/12/2008	Balance c/d	150,000	1/1/2008	Balance b/d	100,000
			31/12/2008	Profit and Loss	50,000
		150,000			150,000
31/12/2009	Balance c/d	200,000	1/1/2009	Balance b/d	150,000
			31/12/2009	Profit and Loss	50,000
		200,000			200,000

Dr.		Profit and Loss Extracted		Cr.
31/1/2006	prov. for dep.	50,000		
31/12/2007	prov. for dep.	50,000		
31/12/2008	prov. for dep.	50,000		
31/12/2009	prov. for dep.	50,000		

Dr.	Extract Balance Sheet		Cr.
	Cost	Accum. Dep.	N.B.V
	250,000	50,000	200,000
	250,000	100,000	150,000
	250,000	150,000	100,000
	250,000	200,000	50,000

64 Entries x 1.56 Marks = 100 Marks