EFFECTS OF GUIDED DISCOVERY AND THINK-PAIR SHARE METHODS ON ACADEMIC PERFORMANCE OF ECONOMICS STUDENTS IN COLLEGES OF EDUCATION IN NORTH-WEST ZONE, NIGERIA

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DECLARATION

I declare that the work in this dissertation titled Effects of Guided Discovery and Think-pair Share Methods on Students Academic Performance in Economics in Colleges of Education North-west Zone, Nigeria has been carried out by me in the Department of Vocational and Technical Education. The information derived from the literatures has been duly acknowledged in the text and the list of references provided. No part of this dissertation was previously presented for another degree or diploma at this or any other institution.

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CERTIFICATION

This dissertation titled **Effects of Guided Discovery and Think-Pair Share Methods on Students Academic Performance in Economics in Colleges of Education in North-West Zone, Nigeria** by Fadilah KABIR meets the regulation governing the award of the Master Degree in Business Education of the Ahmadu Bello University, and is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This research work is dedicated to my father Alh. Kabir Sani Ibrahim and my mother, Hajiya Maimuna Yusuf.

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OPERATIONAL DEFINITION OF TERMS

Academic Performance Successful accomplishment of Academic

Business Education It is an integral part of vocational and technical education. It is specialized in education designed to prepare individuals for and about business.

Demonstration method An approach to teaching which enables the teacher to translate theory into practical.

Economics Is "the practical science of the production and distribution of wealth

Guided Discovery A teaching method where learners take an active part in the learning process in which they have maximum measure of freedom and self-determination.

Lecture method A method of teaching where the teacher is in center stage and takes change of the teaching activities

Think-Pair-Share A method which includes three components; namely, time for thinking, time for sharing with a partner, and time to share among pairs.

LIST OF ABBREVIATIONS

ANCOVA:	Analysis of Covariance
C.M:	Considered method of Teaching
D.M:	Demonstration Method of Teaching
E.A.T:	Economic Achievement test
G.D:	Guided Discovery Method
I.S.A.T:	Integrated Science Achievement Test
P.E.A.T:	Pre-diagnostic Economic Achievement Test
S.A.S:	Students Attitude Scale
S.A.T.I.S:	Scholastic Ability Test in Integrated Science
S.P.S.S:	Statistical Package for Social Science
T.P.S:	Think pair share Method

ABSTRACT

The study investigated the effects of guided discovery and think-pair-share method of teaching on academic performance in economics in colleges of education in north-west Nigeria. The study had five objectives, five research question and five null hypotheses which were formulated and tested at 0.05 level of significance. A quasi experimental research design was adopted for the study. The population of the study was 1007 N.C.E. I business education students of 2017/2018 academics session in College of Education in North-west Nigeria. The study was delimited to Federal College of Education Zaria, and 180 students as sample size. The instruments used to generate data for the study was Pre-diagonostic Economics achievement test (PEAT) and Economics achievement test (EAT). Mean and standard deviation were used to answer the stated research questions; t-test statistics was employed in testing null hypothesis one to five. From the result of the study, all the five null hypotheses were rejected. The finding of the study showed that both guided discovery and think pair share methods had positive effect on students' Academic performance. Therefore, it was concluded that both methods had effect on economic student's performance based on the outcome of this research work. Four recommendations were made, among which is, Departments in colleges of education should encourage the use of guided discovery and think-pair-share methods for teaching Economics in their college to improve students' academic excellence.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

North-west zone is one of the six geopolitical zones in Nigeria which consists of seven States of Kano, Jigawa, Kaduna, Katsina, Zamfara, Sokoto and Kebbi States. Economics is a core course to all NCE students in business education programme in Nigerian colleges of education. The reason being that knowledge of this subject is used in accounting, inventory management, marketing, sales forecasting, and financial analysis. The course contents of economics include analysis of cost, structure of market and demand and supply. Through the contents of economics, students are expected to become familiar with different ideas concerning human economic behaviour and other life living expectancies so as to achieve competencies in the subject. In colleges of education today, many economics teacher consistently employed the use of conventional method of teaching in their classroom instructions.

Conventional method of teaching is a method of teaching through which a teacher uses different methods such as discussion and assignment methods, while teaching students. It is also seen as a method in which students assumed to gain knowledge while passively listening to lecturer (Darmofal, Soderholm and Brodeur, 2000). While using conventional method, students-students interactions are rare, and students occupy themselves for most of the time with listening and watching demonstration from the teacher (Amedu, Otuka and Uzoechi, 2015). This situation calls for the use of other teaching methods which make students involvement in classroom instructions imperative, particularly for teaching courses like economics

which demand for more students' participation. Such teaching methods could be guided discovery and think-pair-share methods.

Guided discovery method is a teaching method where learners take an active part in the learning process in which they have maximum measure of freedom and self-determination. In this method, the teacher guides the students in their learning task by asking them questions that would assist them to generate their own correct ideas of the subject matter. While using guided discovery, the students are made to be active participants in the teaching–learning process individually.

On the other hand, think-pair-share method is a method which includes three components; namely, time for thinking, time for sharing with a partner, and time to share among pairs to a larger group. It allows all children to develop answers, longer, and more elaborate answers can be given, and answers will have reasons and justifications because they have been thought about and discussed. This strategy differs from guided discovery in the sense that it allows for interaction among the learners during the pairing and sharing stages. However, it is expected that, guided discovery and think-pair-share methods if used effectively can boost the academic performance of students to the highest level.

Academic performance refers to the extent to which students have gained from a particular instruction. The successes of educational institution are measured by academic performance or how well a student's meets the standards set out by the institution. Academic performance has to do with the successful accomplishment of goals. The purpose of testing academic performance is to help the teacher and the students evaluate and estimate the degree of success attained in learning a given

concept. It is based on this background that, the researcher intends to find out the effects of guided discovery and think-pair-share method on students academic performance in economics in colleges of education in north-west zone, Nigeria.

1.2 Statement of the Problem

Economics is a basic need of every business education students. It is a discipline of study that all people who need to have business education as profession should have some knowledge of, but despite the importance of the subject, it is unfortunate to observe that, a significant number of students cannot cope with the challenges of skills in the subject. This is still affecting students' interest in economics specially those that have the zeal to further their study with business education. Economics is being offered as one among the major subject before one is admitted into business education program in any business education area of specialization, but the issues of students' failure have been at an alarming rate.

The problems of massive students' failure in the subject have been issues of discussion to especially to students, teachers, parents and the society at large. Economics is one of the core business education subjects, which is supposed to be the most interesting subject to students in senior secondary schools. It has been discovered that the effective teaching of economics has been very important. But the rate at which students fails economics in result time's shows that effective learning has not been attained by these students. Aganga (2000) observed that "many schools, especially the public schools have insufficient competent teachers. Therefore, there is the need to answer certain questions to re-enforce their effectiveness in teaching especially in the provision of effective method of teaching.

Apart from teaching methods, gender is also implicated in students' performance in economics particularly when it comes to practically based aspects of

business education. Okeke (2007) observed that the consequences of gender stereotyping cut across social, economic, political and educational development, especially in the areas of business education and technology. However, there have been conflicting reports in respect to gender and academic performance of students in colleges of education in business education.

Despite the importance of economics to colleges of education students specifically those in business education, their performance in the course is not encouraging compared with other courses in the business education programme. Studies from scholars such as Agwagah (2000), Obodo (2004) and Osemwinyen (2009) showed that students' performance in this subject has been relatively low over the years. This low performance in the subject is not from Economics students alone, some previously conducted research findings have confirmed that, most of students who offer the course in universities have found themselves completely at a loss during lessons and examinations. For instance, data collected from FCE Zaria, revealed that, the performance of students for the past five years in Economics, where; 60.2% failed in 2012, 63.6% failed in 2013, 67.0% failed in 2014, 66.5% failed in 2014 and 68.54% failed in 2015 and 68.1% failed in 2016.

The situation above Therefore, giving the persistence increase in the low performance of college of education students in economics, it is not certain if business education students could do better when taught economics other than the use of the conventional teaching methods. Otherwise if the situation is not properly addressed through the use of more effective methods of teaching, it may continue to affect the overall performance of business education students in colleges of education and eventually in universities. This study is therefore expected to contribute to the debate and to ascertain the fact if there may be differences in students performance in terms

of use of methodology through the use of think-pair-share and guided-discovery methods.

1.3 Objective of the Study

The major objective of this study is, to examine the effects of Guided discovery and think-pair-share methods on performance of students in economics in colleges of education in north-west zone. The specific objectives are to:-

1. determine the effect of guided discovery method on academic performance of students in economics in colleges of education in north-west zone.
2. determine the effect of think-pair-share method on academic performance of students in economics in colleges of education in north-west zone.
3. ascertain the difference in the mean performance of students taught economics using guided discovery and those taught using think-pair-share method in colleges of education in north-west zone.
4. compare the mean performance of male and female students taught economics using guided discovery method in colleges of education in north-west zone.
5. compare the mean performance of male female students taught economics using think-pair-share method in colleges of education in north-west zone.

1.4 Research Questions

Based on the specific objectives, following are the research questions that this research study tends to answer;

1. what is the effect of guided discovery on academic performance of students in economics in colleges of education in north-west zone?
2. what is the effect of think-pair-share method on academic performance of students in economics in colleges of education in north-west zone?

3. Is there any the difference in the mean performance of students taught economics using guided discovery and those taught using think-pair-share method in colleges of education in north-west zone?
4. what is the difference in the mean performance of male and female students taught economics using guided discovery method in colleges of education in north-west zone?
5. what is the difference in the mean performance of male female students taught economics using think-pair-share method in colleges of education in north-west zone?

1.5 Research Hypotheses

The following hypotheses are raised for the study.

1. There is no significant effect of guided discovery method on academic performance of students in economics in colleges of education in north-west zone.
2. There is no significant effect of think-pair-share method on academic performance of students in economics in colleges of education in north-west zone.
3. There is no significant difference in the mean performance of students taught economics using guided discovery and those taught using think-pair-share method in colleges of education in north-west zone.
4. There is no significant difference in the mean performance of male and female students taught economics using guided discovery in colleges of education in north-west zone.
5. There is no significant difference in the mean performance of male and female students taught economics using think-pair-share method in colleges of education in north-west zone.

1.6 Significance of the Study

The finding of this study would be of great importance to lecturer, students, curriculum designers and government in the following ways of this study will be made available to lecturers in colleges of education through published journal articles, conferences and workshops for better understanding, selection and use of appropriate methods of teaching economics that will enhance the academic performance of students in the subject. Also, the findings of this study will enable business education students to change their approach towards learning through proper engagement in self centered activities gained after the use of guided discovery and think-pair-share methods.

The business education curriculum designers would benefit from the result of this study in the sense that, it will help them to adequately plan and suggest relevant method of teaching economics to business education students. Government is always investing in education sector especially in tertiary institution in Nigeria, when the performance of students is enhanced through the use of appropriate and effective methods like guided discovery and think-pair-share, it will help the government in achieving its objective of the investment in education sector in Nigerian Colleges of education. Finally, the finding of this study is expected to be used by further researchers as reference materials and empirical studies by other researchers especially for those researches concerning either guided discovery, think-pair-share and or in economics as a subject.

1.7 Basic Assumption of the Study

For the purpose of this study, the following assumptions were made;

1. The used of guided discovery method to teach students economics are used by lecturers in colleges of education to enhance the performance in economics than the use of conventional method in Federal College of Education Zaria, Nigeria
2. The used of think-pair-share method to teach students economics may likely enhance students performance in economics than the use of conventional method in Federal College of Education Zaria, Nigeria
3. Poor performance in economics is caused by ineffective teaching and learning methods used in the teaching and learning process.

1.8 Delimitation of the Study

The study was delimited to effects of guided discovery and think-pair-share method on performance of business education students in economics in Federal College of Education Zaria, Nigeria. This is because the methods are not commonly used by lecturer in colleges of education particularly in north-west. The study was also delimited to NCE I students that registered for economic in 2017/2018 academic session, these students were selected being beginners in the programme.

The study covered only Federal College of Education Zaria because it is among the oldest colleges of education in the North-West zone with well established business education programme. The study also covered the course contents of economics such as demand, demand curve and scale of preference that relevant to the use of guided discovery and think-pair-share methods. Finally, the study was delimited to NCE I business education students in Federal College of Education, Zaria.

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

2.2.1 Concept of Guided-Discovery

2.2.2 Concept of Think-Pair-Share

2.2.3 Concept of Business Education

2.2.4 Concept of Economics

2.2.5 Students' Academic Performance

2.3 Methods of Teaching and Learning Economics

2.3.1 Problem Solving Method

2.3.2 Lecture Method

2.3.3 Demonstration Method

2.4 Review of Related Empirical Studies

2.5 Summary of Reviewed Literature

2.1 Theoretical Framework

A theory represents general laws or principles or causes observed or known events. A theory of learning is usually the result of long years of study and research by a number of scholars which consists of a set of assumptions from which endless hypothesis may be drawn for testing (Obeka, 2010). This study was anchored on constructivist theory propounded by Bruner (1960). Constructivism is a contemporary

instructional theory of education whose pedagogical potentials is promoting meaningful learning which rapidly received the attention of educationists and researchers. Constructivism views learning as a process in which students actively construct their knowledge of the situation at hand based on the already existing knowledge (Oyedekan, 1998).

Constructivism learning theorist believed that learners actively acquire or construct new knowledge by relating new information to prior experiences. These prior experiences of students' existing knowledge for any given phenomenon are often referred to as prior knowledge (Driver and Erickson, 1983). Constructivism theory is of the view that knowledge is internalized by learners through the process of accommodation and assimilation. Bruner (1960) asserted that the knowledge acquired by students should not be supplied by the teacher as a ready-made product. This view is shared by Bandura (1962), who holds the view that leaning is imitating reality by observing a model identifying with the model, then imitating the model.

Several constructivist instructional strategist exist, some of which includes; guided-discovery approach which Olagunju (2002) described as a process which allows students to solve problems in a legal and systematic manner under the teachers' guidance. This approach offers learners the opportunity to discover scientific facts, concepts and principles to themselves. Another related strategy is the constructivist approach of problem-solving method. Problem solving on which this study is also hinged is described variously by different researchers. It is seen as investigation based, processed based and a fundamental part of doing science (Adesoji, 2008). In this method, learners learn to discover principles, concepts, and facts for themselves.

Learning under this situation is viewed as active, where guesswork and intuitive thinking are encouraged. Learners with different skills and background are encouraged to collaborate in tasks and discussions to arrive at a shared understand of the truth. Problem- based learning follows a construct visit 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 which is an important step to achieve the right balance between the degree of structure and flexibility that is built into the learning process.

Constructivist believes that learners actively construct their own understanding rather than absorb or copy the understanding of others (Yager in Kaya, 2008). Students play a central role as active participant in the learning process, this knowledge evolves from the Learners previous experience, combined with active engagement in new activities. This means that through assimilation and accommodation, a new relationship is established between previous experiences and new activities. This activity of establishing new relationship plays a critical role in the construction of knowledge and the creation of new ideas (Yager in Kaya, 2008). This research work is related to Jerome Bruner's construct visit learning theory because it has to do with activity learning since this work is also on activity learning. Problem-solving and guided discovery learning emphasized the need to promote lifelong learning through the process of inquiry and constructivist learning. These methods of teaching are considered constructivist approach to instruction in business education because of the emphasis on collaborative and self-directed learning being supported by the teacher as facilitator.

2.2 Conceptual Framework

In this study the following concepts were examined: Concept of Guided-Discovery, Concept of Think-Pair-Share, Concept of Business Education, Concept of Economics and Students' Academic Performance.

2.2.1 Concept of Guided-Discovery

Guided-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. Guided-Discovery learning takes place most notably in 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 and internal constructivist learning environment. According to Bruner in Mayer (2003) guided-discovery learning has precise effect on the learner by leading the learner to be a constructionist. The approach is also to make the learner organize what he is encountering in a manner not only designed to discover regularity and relatedness. It leads to avoid the kind of information drift that fails to keep account of the uses of which information might have to be put.

This cognitive approach to teaching using guided-discovery is gaining momentum among educators who realized that for students to be successful in the twenty-first century they need to be lifelong learners. This direct instructional method was used almost exclusively in the earlier part of this century, though still effective for some skills including those in business subjects. For instance, this

involves students working together in economics process like production while the teacher serves as experts, facilitator and just getting out of the way letting students discover things for themselves (Mayer, 2003).

In this way, Guided-discovery involves helping learners to discover certain facts or answers to a given problem. 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. However, 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).

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.

2.2.2 Concept of Think-Pair-Share

Think-Pair-Share is a cooperative discussion strategy developed by Frank Lyman and his colleagues in 1978 in Maryland. It gets its name from the three stages of student's action, with emphasis on what students are to be doing at each of those

stages. How Does It Work? (1) Think. The teacher provokes students' thinking with a question or prompt or observation. The students should take a few moments (probably not minutes) just to think about the question.

(2) Pair. Using designated partners, nearby neighbors, or a desk mate, students PAIR up to talk about the answer each came up with. They compared their mental and written notes and identify the answers they think are best, most convincing, or most unique. (3) Share. After students talk in pairs for few moments, the teacher calls for pairs to share their thinking with the rest of the class (www.sciencedirect.com). They can do this by going around in round-robin fashion, calling on each pair, or they can take answers as they are called out (or as hands are raised).

Often, the teacher or a designated helper will record these responses on the board, an example is learning task: the teacher will provide a worded problem involving an area. Think: the teacher will allow students to individually solve the problem first. Pair: after 5 minutes, the teacher will ask the students to find a partner and discuss their solutions to each other. They should come up with a single solution for the given problem. While partners are discussing their solutions, the teacher will roam around to see which partnered students were able to make it correctly and which are not. Share: the teacher will randomly select a partner to share their partner solutions to the class by explaining it in front and solving it using the blackboard.

According to Bamiro (2015), Think-Pair-Share is a cooperative learning strategy that includes three components, namely, time for thinking, time for sharing with a partner, and time to share among pairs to a larger group. The use of strategy unites the cognitive and social aspect of learning, promoting the development of

thinking and the construction of knowledge. The Think-Pair-Share strategy has many advantages over the traditional questioning structure. The “think time” incorporates the important concept of “wait time”. It allows all children to develop answers, longer and more elaborates answers can be given, and answers will have reasons and justification because they have thought about and discussed. Students are more willing to take risk and suggest ideas because they have already “tested” them with their partner.

Think-Pair-Share: after posing a question (particularly a complex one), give students five minutes to think about it, perhaps even jot down some notes, after which you have them partner up for a quick discussion about what they think and why. After giving ample time for discussion. Ask partners to share their insight with the entire class. This strategy is helpful in engaging students in a more meaningful way. Think-Pair-Share provides time to think about the answer to a question or problem and time to discuss it a group, before proposing an answer or solution to the entire class (Phirikeins, 2004). Regardless of whether the result ends up being shared in the larger class discussion, the process often leads o more thorough, deeper thinking on the part of each student.

According to Magre and Joshi (2013) stated that think-pair-shared is a method that allows students to engage in individual and small group thinking before they are asked to answer questions in front of the whole class. There are four steps to this method. The first step is a group of four students listens to question posed by the teacher. Secondly, individual students are given time to think and then write their responses. Thirdly, pairs of students read and discuss their responses. Finally, a few

students are called upon by the teacher to share their thought and ideas with the whole class. Three-step interview it is a strategy that is effective when students are solving problems. Three problem-solving steps are involved in this process.

In step one, the teacher presents an issue about which varying opinion exist and poses several question for the class to address. Step two, the students, in pairs becomes the interviewer and the interviewees. Step three, after the first interview has been completed, the student's role is switched. After each student has turned, the pairs read their interviews to the class. After all, interviews have been done, the class writes a summary report of the interview results.

Think-pair-share essentially increases wait time after students are posed with a question or task. (Johnson and Johnson, 2002). Think-pair-share allows more time for students to think, and has been shown to get more students involved in the discussion and improve the quality of student responses (Rowe, 2000). Think-pair-share is also very useful to teachers because it can be used as a valuable form of formative assessment (Cooper and Robinson, 2000).

In order for meaningful learning occur, students must interpret, relate, and incorporate new information with students existing knowledge and experiences (Cortright, Collins and Dicarlo, 2005). Students must actively process information in order to learn (Lujarn and Dicarlo, 2006). Students often have difficulty in asking their problems for certain topics to teacher in learning process. They will easier to ask their problems to their friend by using their own language so that they can understand and help one another. The think-pair-share technique is probably the best-known and the most widely used for cooperative learning structure (Kitaoka, 2013). In a think-

pair-share activity, each student is asked individually to consider a problem first then students discuss the problem in pairs. Finally, each group develops a single answer to the problem mentioned.

Steps to think-pair-share

According to Richard (2015) stated that think-pair-share (TPS) consist of three steps, these are;

Step 1-Thinking

The teacher poses a question or an issue associated with the lesson and ask students to spend a few minutes thinking alone about the answer or the issue. Students needs to be taught that talking is not part of thinking time.

Step 2-Pairing

Students are asked to pair with another student and discuss what they have been thinking about. Interaction during this period can be sharing of answers if a question has been posed or sharing of ideas if a specific issue is identified. Usually, four or five minutes are normally allocated for this step.

Step 3-Sharing

In the final step, the teacher asks the pair to share what they have been talking about with the whole class. It is affective to simply go round the room and continue until about a fourth or a half of the pairs have had a chance to report. Bataineh (2015) stated that where students think of an answer to a question, share their answer with a partner, and then that pairs with another pair. Finally, he foursome creates an answer that represent the consensus of their group to the whole class. This activity may take fewer than 15 minutes. Think-pair-share is a cooperative learning technique which

involves presenting students with a task or question and giving them time to think by individually. Then in pairs, they report their individual findings, discuss their own thoughts and then refine their individual work if they see fit in order to come up with a consensus on the question or task. Then after pairs have time to discuss, the class reconvenes and members of the different pairs share their thoughts with the class.

However, Ukwungu, (2000) observed that think-pair-share helps to improve class discussions more than any other technique he incorporated into his teaching. He noticed that this technique, by first allowing students time to think individually, it increases individual accountability and personal responsibility for learning and participation in class compared to starting out in group, which is one of the vital aspects of successful cooperative learning. He also noticed that students were more willing to share ideas with the whole class when the responsibility for the response is shared among partner. According to Kitaoka, (2013) stated that thin pair share encourages;

1. Positive interdependence: the students are able to learn from each other.
2. Individual accountability: students are accountable to each other for sharing ideas. The students may also be required to share their partner's ideas to another pair or the whole group.
3. Equal participation: each student within the group has an equal opportunity to share. It is possible that one students may try to dominate. The teacher can check this does not happen in any other groups.
4. Simultaneous interaction: a high degree of interaction. At any moment all of the students will be actively engaged in purposeful speaking and listening. Compare this with the usual practice of teacher questioning whereby only one or two students would be actively engaged.

2.2.3 Concept of Business Education

Aliyu, (2001), business education is an integral part of vocational and technical education. It is a specialized education designed to prepare individuals for and about business. It is the education for the acquisition and development of skills and competencies, attitudes, attributes which are necessary for the efficiency of the economic system. There are many definitions of business education as there are business educators, for example, it is once described business education in relation to the parable of the blind men and the elephant. Depending on which part of the elephant he touched each one then 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).

Aliyu (2006) defined business education as education for business. It is the intellectual and vocational preparation for earning a living in a contemporary industrial and business environment. Udoh (2010) defines business education as a programme of study that covers a wide range of the spectrum of economic activities in any society. However, 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 occupations through the acquisition of skills, knowledge attitudes, and understanding necessary for productive activities. Osuala (2004) postulated that business education is a training system that enables the beneficiary to acquire skills that will make him fit into the world of work. Ibrahim (2008) opines that business education encompasses

knowledge, attitudes, and skills needed by all citizens in order to effectively manage their personal resources and participate effectively in the economic system.

Adeshina (2007) stated that business education is an embodiment of vocational knowledge and skills needed for entry-level employment and advancement in a broad range of careers business careers. Ukoje (2010) posited that business education provides individuals with skills 'and knowledge about business and for business. He also stresses those individuals who study course that produce goods and services; financial institutions, management of funds, due process in offices, a trader within and across countries and government policies concerning their operations. The National Policy on Education (NPE) (2006) looks at business education as a conglomerate of courses/subjects that is concerned with the acquisition, development and inculcation of the proper values for the survival of the individual and society, the development of the intellectual capacities of the individuals to understand and appreciate the environment, the acquisition of both physical and intellectual skills which will enable individuals to develop into useful members of the community; the acquisition of an objective view of the local and external Environment.

From the aforementioned definitions, this study observes that business education has many description and definitions. People outside the field have different perceptions of it too. Therefore, the researcher sees business education as a discipline designed to inculcate in the learner attitudes, skills, knowledge and values that are needed in the business world. Furthermore, the knowledge of business education produces responsible, productive and self-reliant citizens.

2.2.4 Concept of Economics

Economics is concerned with human behaviour, such as how people earn their living and make a choice between alternatives to satisfy their wants. It focuses on the study of firms and the government whose activities are geared to the production of goods and services for the satisfaction of human wants.

Economics is a social science, and like any social science subject, the reasoning procedure in economics is practical, its analysis is systematic, and the validity of its various theories can be tested. Economics has as many definitions, as there are many economists. This is because various economists see the subject from different points of view. Some of them are interested in monetary economics while some are interested in Industrial economics and some are interested in business economics, welfare economics, international economics, and economics of education (Ndupuechi, 2009).

They therefore define economics to reflect their interest and this is why there is no definition of economics that is all–embracing. For example, an economist writing during a period of economic recession may include aspects of it in his definition of economics.

Economics is basically the study of the allocation of resources among alternative uses to satisfy human wants. It is concerned with the choice people make in using limited resources to satisfy unlimited wants. Economics deals with production, exchange, distribution as well as consumption of goods and services. Below are some definitions of economics given by some economists. The earliest definitions as observed by Ochejele, (2007) were in terms of wealth or material welfare.

Adam Smith in Jhingan (2013), was regarded as the father of economist because he was the one that laid the foundation of economics as a discipline. He defined economics as an enquiry into the nature and causes of the wealth of nations. Smith was interested in the wealth of political economies. His main interest was to investigate the reasons why some countries are poor or under-developed and why others are rich or developed. Economics as the practical science of production and distribution of wealth (Jhingan, 2013). He was interested in what determines the amount of wealth possessed by an individual, or how wealth is produced and shared out among the various members of the society. Davenport in Ndupuechi (2009) defined economics as the science that treats phenomenon from the start point of price. He was interested in exchange value, i.e. anything that has monetary value is the framework of economics.

Ndupuechi (2009) economics is the science of material welfare and was interested in consumption, which is an aspect of welfare economics. His concern was how to increase the material wellbeing/standard of living of man through increase in total production (Ndupuechi, 2009). Marshall in Jhingan (2013), a great Vectorian economist, defined economics as the study of mankind in the everyday business of life. He saw economics as the study of wealth on one side and the study of man on the other side. Robbins in Jhingan (2013), defined economics as "the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses". Robbins definition is the most widely acceptable definition of economics. It is analytical and is the most scientific and most embracing. It shows that economics is a social science because it studies human behavior, human wants are

unlimited, and there are limited resources to satisfy the unlimited human wants, scarce resources are capable of being put to the alternative uses.

2.2.5 Students' Academic Performance

Students' 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) reports that in educational institutions, success is measured by academic performance or how well a student meets the target set out by the institution. Rothstein (2000), academic performance entails students' successful accomplishment in a particular subject area such as economics. It is indicated by grades, marks, and scores of descriptive commentaries.

Performance of students has for long generated a lot of interest among scholars, researchers, government officials, parents, and students themselves. Many studies have examined the factors that influence students' performance at all levels of education with the purpose of enhancing learning at these stages. 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 Methods of Teaching and Learning Economics

Ada, Odey, Agishi and Afaor (2010) defined teaching as a deliberate activity aimed at ensuring that learning takes place. Ombugus, Jatau and Kuje (2009) see teaching as the passing of ideas, knowledge, skills, attitudes, beliefs and feelings to someone, with the aim of bringing about particular changes in that person. The changes should then lead to different behaviors. The authors further stated that teaching provides the necessary amount of practice so that the changes become part of the person's life. It is important to note that communication or contact between the minds of the two involved in teaching and learning has to be free. There must be nothing to block the flow.

Ahukannah (2001) asserted that in fostering learning economics in the classroom, teachers bring the learners in close contact with the curriculum contents using appropriate methods and materials. Odu (2010) pointed out that effective teaching takes place faster when the teacher knows which method to use in a particular situation to meet specific goals. The Economics teacher needs to know the best methods to pass information to the learners (students).

Fidelial (2008) stated that it as a procedure by which a goal is reached, a purpose accomplished or result achieved. Iloh (1999) stated that method is a pre-arranged source of procedure adopted to secure success in teaching. Ombugus et al., (2009) see method as the overall plan for the orderly presentation of content or learning material. Methods play a vital role in ensuring effective, interesting and stimulating learning. Tonne, Popham and Freeman in Obi (2005) opined that method is the procedure by which the teacher meets the learner at his level, starting with his

interest and his problems and then establishing conditions that help him to proceed to his set goals in the most possibly effective manner. The teacher is the major determinant of learning because he is in the position to motivate learners to learn through the use of appropriate method of teaching. Ada, Odey, Agishi and Afaor (2010) see it as the medium through which the teacher disseminates the content of instruction to the learners in order to achieve teaching objectives.

Similarly, Odu (2010) posits that teaching methods are the ways and means which a teacher adopts to guide the students through learning activities in order to accomplish the desired goals. Ombugus et al., (2009) sees teaching method as a recurrent pattern of teacher behaviour, applicable to various subject matters, characteristic of more than one teacher and relevant to learning. (Ameh & Dantani, 2012), also stated that a teaching method can be described as a way of teaching; it is a process, a course of action or procedure of operation which varies according to circumstances. Hence a method of teaching can be identified and known by the type of activities pursued by teachers and pupils together in discussion, group work, demonstration and T.V. viewing. During a learning session, methods are limitless and one cannot, therefore, with confidence determine the number of methods available to a teacher. Teaching method is the professional way teachers adopt in their instructional exercises to enable them impart relevant knowledge and skills to their students (Ajoma, 2009).

Teaching methods can be teacher-centered, learner-centered or mixed approach. Quite often, teachers prefer methods that make their work easier based on their beliefs, personal preferences and norms of their disciplines (Watson 2003). In

this regard, some teachers believe that lessons should be teacher-centered, where the teacher is the expert and the authority in presenting information (Ahmad & Aziz 2009). The selection of appropriate teaching method will bring about effective teaching of economics which will in turn enhance student academic performance. Mager in Adunfe (2005) submitted that once a teacher decides on what he intends to achieve at the end of the course, he must then select a procedure, content and methods that are relevant to the objective to cause the student to interact with the subject matter in accordance with the principles of learning and finally measure the students' performance according to the objectives originally selected. Mager indicated that the teacher takes far reaching decisions before teaching content and one of these valuable decisions is the selection of appropriate teaching method.

Many methods are used in education for teaching various subjects including economics. The methods are meant to make teachers succeed in their bid to disseminate knowledge to students. In selecting the appropriate method for a subject some factors must be taken into consideration. They include learners' factors (which include interest, age, level and weakness), teacher's factors (which include personality, motivation, preference, skills and knowledge), and the nature of subject (practical oriented or theoretical) available resources, time, objective and validity of the method.

Osuala (2004) affirmed that knowledge can be acquired by reasoning, association, feeling, smelling, testing, seeing and hearing. Skill on the other hand can only be acquired by repeated actual practice and drill. Therefore, in teaching Economics it becomes necessary to adopt some approaches that ensure orderly

presentation of the subject content. Based on the fact that economics does not have a generally accepted principle and methods, the following methods are used by economics teachers in delivering the contents of economics during instruction.

2.3.1 Problem Solving Method

Problem solving can be traced to John Dewey, a philosopher who was born in 1859 in Burlington Vernon in America. Dewey sees problem solving method as a need that meets the practical need of student and serves as the best method of acquiring knowledge through experimentation (Watson 2003). Adunfe (2005) affirmed that problem solving requires an investigative skill for solving problems on the part of the students. This method helps students to tackle tasks like typing different types of headings, tabulation, speed and accuracy etc. These tasks are given by the teacher who deliberately arranges the task in a haphazard way just to see that students can re-arrange and type the task properly.

Ogbole and Balogun (2001) described problem solving method as one of the student-centered approaches to teaching. However, the teacher can assist students to identify the problem to ensure the accomplishment of task without wasting time. Ownby (2008) stated that in keyboarding, problem-solving is one of the methods used to disseminate content of instruction to the learners. What keyboarding teachers do is to identify the problem in form of exercise based on the topic at hand and then ask the students to proffer solution. Ahukannah (2001) asserted that sometimes, problem-solving is used alongside with assignment approach in teaching topics that involve working out solution. The author suggested that the following procedures must be followed when a teacher intends to use problem-solving method: problem identification, problem interpretation, generating ideas and action to solve the

problem, planning and implementation of action toward solving the problem and measuring the whole action on the problem.

When planning to use problem-solving method to teach Economics, Dennee (2009) suggested that the teacher has to undertake the following measures:

1. Economics teacher must first of all generate the topic, exercises and suggest some ideas for solving the problem.
2. The Economics teacher must direct the students to initiate reference materials for solving the problem.
3. Economics teacher and the students must jointly formulate standard for measuring the whole process of problem solving.

2.3.2 Lecture Method

Lecture method remains the most popular method of teaching in schools especially higher institutions. Adunfe (2005) defined lecture method as a teaching strategy where a pre-packaged instructional content is delivered by the teacher to a large audience with minimal student-teacher interaction. The author stated that the lecture method refers to the teaching procedure involved in clarification or explanation of concepts to the students. Thus, when the teacher takes a lengthy-short explanation in order to clarify his ideas or some fact, that explanation is termed lecture method.

Ogwo and Oranu (2006) added that the lecture method is used in conjunction with almost all other methods of imparting skills. They pointed out that lecture should start with what the student knows and is familiar with then proceed to the desired goal. Olorukooba (2001) posits that lecture method lays emphasis on the penetration of contents and that the teacher is more active and students are passive but the teacher

also uses question-answers to keep the students attentive in the class and that this method is used to motivate, clarify, expand and review information. Cantrell (2004) also reported the characteristics of lecture method to include teacher-centered, teacher-active, student-passive and content emphasis. Adunfe (2005) enumerated the following as some of the features of lecture method: large class size, wide content of instruction, inadequacy of time, minimal use of chalkboard or whiteboard, low level of interaction. Lecture method is one of the traditional methods used by keyboarding teachers in delivering instruction to the learner. Lecture method in teaching keyboarding is the process whereby the teacher orally explains a topic to students, while the students listen and think about the lesson taught.

This method though has its demerit of not allowing students further participation; it is good in a large class and advance level of learning. However, much success may not be recorded by keyboarding teachers who make use of lecture method without combining it with other effective and well organized methods like demonstration method (Adunfe 2005). The author further added that a greater part of the lesson should be dominated by discussion, question and answer sessions. However, students would be active participants and not mere listeners and note takers during keyboarding lessons.

2.3.3 Demonstration Method

Demonstration method of instruction is an approach to teaching which enables the teacher to translate theory into practice. It involves a process in which the learner follows a number of planned and organized procedures to learn a practical or skill-oriented task. The demonstration method involves showing the students the response pattern to be made and allowing them to imitate what they see or hear. This procedure

makes classroom teaching realistic and impressive, and provides true learning experiences where appropriate instructional aids are used. Demonstration method is one of the effective methods applied by teachers in achieving objectives of learning in real-life situations (Nwachukwu, 2006). The author pointed out the following as some of the importance of demonstration method when used with appropriate techniques in keyboarding: motivating students to learn, engaging various senses of the student, effective communication, saves time and energy, enhances the prestige of the teacher, measures of positive reinforcement, gives a real-life situation of the course of study and allow process and project evaluation.

Osuala (2004) suggested that demonstration or "doing" method should be used to teach skills. It is a method that arrests students' attention because it provides them with the necessary visual experiences, which may be necessary prerequisites for further understanding of task. Abah (2002) asserted that the demonstration method is a "must" in teaching beginning keyboarding students and it should also be used literarily throughout the entire keyboarding programme. Osakwe (2001) points out that the demonstration method is preferably given by a "live" teacher rather than video tape. The author added that live demonstrations should be easily perceived, organized and remembered by viewers, capable of approximate imitation by the students and accompanied with simple, but pertinent, verbal instructions that are specific to the task, followed up by student imitation and teacher observation and confirming or corrective comments. The follow-up activity to a good demonstration includes not only student imitation, but also observation and analysis of the quality of that imitation. The result of this analysis determines the kind and amount of additional demonstration and practice that seem necessary.

The essential components of demonstration method are showing, doing and telling (Adunfe 2005). The author further asserted that the method provides an opportunity for the students to speculate on what will happen, how it will happen and the processes that it would take. In vocational technical education, demonstration is effective in teaching skill-oriented courses like typewriting (keyboarding), shorthand, electrical-electronics, building woodwork and catering. To ensure effective teaching in keyboarding using demonstration method the teacher needs to demonstrate by means of step-by-step procedures in job task using exact physical procedure. Olanipekun (2003) highlights these as the features of demonstration method:

1. The demonstration method is more or less lecture method in the sense that the teacher is the doer and the students are passive observers.
2. This method can be employed at all levels of education (primary schools, secondary schools and tertiary institutions).
3. Good demonstration must permit the learner to ask questions
4. It is teacher-centered

The behavior of the teacher in the formal learning environment is conditioned by his knowledge of learning theory and principles. The ability to apply this knowledge in the experience of the keyboarding classroom determines in large measure the students' success. Providing appropriate guidance in the classroom indicates that individual students need different kinds and amounts of teaching to achieve learning objective (Ahukannah 2001).

To teach Economics requires teachers to combine a number of methods. Teachers can combine lecture, demonstration in their teaching of keyboarding (Obi, 2005). Nieman (2006) stated that for any success to be recorded in lecture method

used in teaching Economics, it must be augmented by a technique e.g debriefing, drill and practice, brainstorming etc. Obi, (2005) added that methods of teaching like discovery; demonstration etc can be used as techniques under a different model of teaching e.g. lecture, to reinforce learning. There are merits in using lecture method: it is economical; it can be successfully used for all type of students among others. However, demonstration method as a learning technique promotes the acquisition of specific psychomotor skills. Like methods, the choice and use of techniques requires intelligent planning.

2.4 Review of Related Empirical Studies

Hamdan (2017) conducted a research on effect of think-pair-share on the achievement of third grade students in sciences in the educational district of Irbid, Jordan. The researcher had five research objectives, five research questions and five research hypotheses. Quasi-experimental design was used for the study, using 120 students as the sample size for the study. All the null hypotheses were tested at 0.05 level of significance. Among the findings of his study was that there was statistically significant difference between male and female students taught mathematics using think-pair-share. The researcher recommended among others think-pair-share strategy should be used during the teaching and learning of mathematics in 3rd grade schools.

The finding of Hamdan (2017) is similar to the present research work in the sense that they both concentrate on the use of think-pair-share method. Quasi-experimental research design was used for the past research and the same to be in the present study. Yet, there are differences between the present study and the past study, because the present study was conducted in Nigeria while the past study was done in

Irbid, Jordan. Also, the present study compared guided-discovery method and TPS method while the past study was on only effects of TPS. The past researcher used 120 students as sample size of the study, while the present research work extended to 190 students as sample.

Also, Martha (2015) conducted a research on effect of think-pair-share on secondary school mathematics students' achievement and academic self-esteem in fractions in Benue state, Makurdi, Nigeria. The researcher had five research objectives, five research questions and five research hypotheses. Quasi-experimental design was used for the study, using 332 junior secondary school students in Benue as the sample size for the study. All the null hypotheses were tested at 0.05 level of significance. The findings revealed that, there was statistically significant difference in the mean score of students taught using think-pair-share compared to those taught using conventional teaching method. The researcher recommended among others that, students should be allowed to use the think-pair-share method during their private study time to enhance their level of self-esteem.

The finding of Martha is similar to the present research work in the sense that they both concentrate on the use of think-pair-share method. Quasi-experimental research design was used for the past research and the same to be in the present study. Yet, there are differences between the present study and the past study, because the present study was conducted in Zaria, Nigeria while the past study was done in Benue, Makurdi, Nigeria. Also, the present study compared guided-discovery method and Think-Pair-Share method while the past study was on effects of think-pair-share and

self-esteem. The past researcher used 332 students as sample size of the study, while the present research work was reduced to 190 students as sample.

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.

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 past study because the present study was conducted in Nigeria while the past study was done in Indonesia. Also, the present study compared guided-discovery method and Think-Pair-Share method while the past study was on effects of small group activities on conventional method of teaching. There is similarity because between the studies, the present study used both experimental and control group which was also used in the past researcher's study, while the previous study was on business instruction, the present research study was also on teaching business education subject.

Bamiro (2015) investigates the effects of guided discovery and think pair shares strategies on secondary school student's achievement in chemistry in Ogun state Nigeria. The study employed a quasi-experimental design and the entire SS I science students in public school constitute the population of the study. The researcher administered a pre-test to the students in order to ascertain the entry level of the subjects. After treatment, a post-test was administered to the students in order to ascertain the effects of the treatment.

The purpose of the study was to find out the effects of guided discovery and think-pair-share strategy actually, affects student's achievements in chemistry with a view to recommending a better opinion. Three hypotheses were formulated and tested at 0.05 level of significance. The researcher collected the sample of two hundred and forty-two (242) students from six senior secondary schools in two local government areas which are, Ojebu, Ode and Odogbulo local government areas of Ogun state. In selecting the sample, simple random sampling was used to select six schools from the total population of the study.

The researcher analyzed the data generated using the inferential statistics for answering research questions. Analysis of covariance (ANCOVA) was used to test the hypotheses at 0.05 level of significance, the result showed that there was a significant difference between the pair of students exposed to the guided discovery and lecture strategies and think pair share and lecture strategies in the mean score of chemistry. The finding of the study revealed the effectiveness of guided discovery and think pair share strategies over lecture strategy in enhancing student's achievement in chemistry.

In line with the findings, the researcher recommended among others that guided discovery and think pair share strategies should be adopted for instruction in secondary schools in order to improve student's achievement. The present study is similar to the past study in the following areas. The research design for both studies is quasi-experimental design, both studies focused on academic performance. However, the present study differs in the following areas: the location for the present study is North-Eastern state while the location of the past study is South-West state; the present study focused on colleges of education students while the past study focused on secondary school students. The sample size for this present study is 120 intact class of N.C.E I while the past study was 242 secondary school students. The present study uses t-test and regression analysis, while the past study used analysis of covariance (ANOVA), the past study used split-half method for reliability while the present study uses test-retest method. The past research study contributed to the progress of presents study in selecting literature, research design and methodology for the study.

Ajaja and Eravwoke (2010) conducted a research on the effect of cooperative learning strategy on junior secondary students' achievement in Integrated Science, considering gender and ability. To guide the study, five hypotheses were formulated and tested at 0.05 level of significance. The study employed 2x2x2x2 factorial pre-test, posttest control group design. These include two instructional groups (cooperative and traditional classroom groups), gender (male and female), and ability (high and low). The population of the study comprised 205 JSS III students; out which a sample of 120 was randomly selected. The instrument used for the collection of data included a Scholastic Ability Test in Integrated Science (SATIS), Students' Attitude

Scale (SAS), and Integrated Science Achievement Test (ISAT). The data collected from pretest and post-test were analysed using analysis of covariance (ANCOVA) statistic. The major findings of study showed: a significant higher achievement test score of students in cooperative learning group than those in traditional learning classroom; there was also significant higher attitude scores of students in cooperative learning group than those in traditional classroom; a non-significant difference in the achievement test scores between male and female students in cooperative learning group. A higher significant achievement test score of students of varying abilities in cooperative learning group than those in the traditional classroom and non-significant interaction effect between gender and ability, gender and method, ability and method and among methods, sex and ability on achievement. This work is related to the present study because they both seek to determine the effect of teaching strategies on students' achievement especially think-pair-share which as among the family of cooperative teaching methods. However, the two studies differ in topic, area of study, design and population.

Ovey (2010) studied the effect of demonstration, peer tutoring and lecture teaching strategies on senior secondary school students' achievement in Commerce in Nasarawa State. The study was aimed at examining the effect of three teaching methods on achievement of students. Lecture strategy served both as a teaching strategy as well as control. A 3x2x2 pretest, post-test experimental design with a control group was used in which a 150 randomly selected Senior Secondary school II (SSSII) commerce students were drawn from five schools. The data was analyzed using ANCOVA and Scheffe's post-hoc analysis. The findings revealed that there was

significant effect of treatment on student achievement in Commerce. It was also seen that students performed significantly at different levels in the three groups. The previous study is related to the present in the sense that, both of them looked at the effect of demonstration method in the achievement of students but the major gap is that the previous study used three methods of teaching; demonstration, peer-tutoring and lecture methods of teaching on achievement of students in commerce while the present study is focused on only two teaching methods; Guided- discovery and Think-Pair-Share methods in Economics. The two studies also differ in their target population; the target population of the previous study is senior secondary school students while the present study involved college of education students. The previous study also adopted 3x2x2 experimental pre-test post-test control group design while the present work adopted quasi-experimental design.

2.5 Summary of Reviewed Literature

In this chapter, theoretical framework on constructivism learning theory and social learning theory were reviewed. Literatures related to the study particularly on guided discovery, think-pair-share methods, concept of academic performance were also reviewed. The review also covered historical development of economics thought, opinion of economist and teaching methods applied to economics. Out of all literatures reviewed, the researcher did not find any researcher who examined the effect of Guided-discovery and think pair share on economics students' performance in colleges of education in the North-West Zone, Nigeria. This is the major gap that the study has to fill.

CHAPTER THREE

RESEARCH METHODOLOGY

The chapter dealt with the research design and method used in conducting the study. The chapter was organized under the following sub-headings: -

3.1. Research Design

3.2. Population of the Study

3.3. Sample Size and Sampling Procedure

3.4. Instrument for Data Collection

3.4.1 Validity of the Instrument

3.4.2 Pilot Study

3.4.3 Reliability of the Instrument

3.5. Procedure for Data Collection

3.6. Procedure for Data Analysis

3.1 Research Design

A quasi-experimental design was adopted for this study based on pre-test and post-test. This design permits the use of intact classes (Okeke & Offorma, 2001). It is a design which provides for one or more experimental group and control group in which the experimental and control groups are assembled as intact classes without any random pre-selection processes.

3.2 Population of the Study

The population of this study comprised of one thousand and seven (1007) NCE I business education students that offered Economics as a course of study in the 2016/2017 academic session in the nine Federal Colleges of Education in North-West Zone. The distribution of the population is shown in table 1.

Table 1: Population of the Study

Names of Colleges	Students		
	Male	Female	Total
Federal College of Education, Zaria	90	90	**180**
Federal College of Education Kano	122	102	**224**
Federal College of Education (Technical), Bichi	120	100	**220**
Federal College of Education, Katsina	105	108	**213**
Federal College of Education (Technical), Gusau	-	170	**170**
Total			**1007**

Source: Academic Planning Units of Colleges of Education North-West, Nigeria 2017

3.3 Sample Size and Sampling Procedure

The sample size was 180 students NCE1 business education students' from Federal College of Education, Zaria, Nigeria used as intact classes. This was because in quasi-experimental design, intact class is used because it lacks randomization. The reason for selecting FCE Zaria was that it has adequate and functional instructional facilities.

The One hundred and eighty (180) NCE I students who were admitted in 2016/2017 academic session which served as an intact class was grouped into three classes which comprised sixty (60) students in each group and taught economics using guided-discovery method, think-pair-share method and conventional lecture method. The composition of the sample size is presented in table 2.

Table 2: Sample Size for the Study

Group Name	Students		
	Male	Female	Total
Guided-Discovery Method	25	35	**60**
Think-pair-share Method	32	28	**60**
Conventional Method	30	30	**60**
Total	**90**	100	**180**

3.4 Instrument for Data Collection

The instruments used for the data collection was Economics Achievement Test (PEAT) which was served as pretest and post test to measure the students' entry level of their behaviour and after the experimental treatment. The instrument contained multiple choice questions which covered aspect production as seen in (appendix II).

3.4.1 Validation of the Instrument

In order to ensure the instrument met the expected standard, researcher's supervisors and two experts in educational psychology and counseling, Ahmadu Bello University, Zaria validated the instrument. Their suggestions corrections and modification were incorporated into the final copy. This agrees with the views of Hanger and Becker (2005) who stressed the need and significance of establishing the validity of any research instrument by a panel of experts to determine if its items (contents) can obtain the desire data they are intended to obtain, this essence is to ensure that its content validity and also to ensure that necessary adjustment was made thereafter.

3.4.2 Pilot Study

A pilot study was conducted where 30 copies of the instrument were administered to NCE I Business Education students in College of Education Azare, Bauchi State, Nigeria. The choice of the college was because it is a public institution, outside the population of the study and has common characteristics with the institutions under study. The data collected were subjected to statistical test to determine reliability coefficient correlation.

3.4.3 Reliability of the Instrument

In order to determine the reliability coefficient of the instrument, test-re-test method was used to collect the data. The results of the data obtained were subjected to statistical analysis using Cronbach Alpha Reliability Coefficient. A standardized reliability coefficient of 0.86 was obtained which showed that, the instrument was stable and acceptable and as such could be used for the study. Uzosike (2008) noted that, the average value of correlation co-efficient must not be less than 0.50.

3.5 Procedures for Data Collection

The researcher collected an introductory letter as in (Appendix I) from the Department of Vocational and Technical Education, Ahmadu Bello University, Zaria, for identification. This was done to introduce the researcher to the college authority and have access to the college facilities and the study subjects. Lessons were organized for all the three groups comprising of the two experimental groups and one group for the control which lasted for five weeks using one-hour lesson throughout the exercise. The first thirty minutes of the first week was used for introduction, familiarity and creating a rapport between the researcher and the students. The researcher used ten minutes to administer the pre-test (Appendix II). The pre-test score served as a basis for comparing students' performance and level of understanding in Economics before the treatment was given. The researcher used the remaining four weeks to effectively teach each of the three groups using the topic "Theory of production" up to the coverage of factors of production.

In the second week, the researcher taught the students 'Land, its characteristics and it is important to the economics. In the third week, the researcher taught the two

experiment groups and the control group labor, types of labor and its characteristics. In the fifth week, the researcher also taught the students capital, types of capital and its characteristics. In the fifth week researcher also taught the entrepreneur, functions and its characteristics. In the six week of the experiment, the researcher used ten (10) minutes to administer a post-test to each group (Appendix IV) and marked the test using the post-test making scheme (Appendix V).

3.6 Procedure for Data Analysis

In analyzing the data collected, five research questions were analyzed using mean and standard deviation, while t-test was used to test all the null hypotheses. The t-test was used because according to Christian (2012) as cited in Ado (2016), t-test is the best parametric statistical tool used to test a null hypothesis about the difference between two groups. All the null hypotheses were tested at 0.05 level of significant.

Decision Rule:

For all the research questions, the pass mark was 50%. Hence, a mean score of 50% and above was regarded as Pass, and a mean score below 50% was regarded as Fail. Therefore, in research questions 3 to 5, a mean score of any of the two (2) variables that is higher was considered as more effective where P- value was found greater than X- value, the null hypotheses were retained. Where the P-value were found less than the X-value, the null hypotheses were rejected.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

In this chapter, the researcher presented the results of data collected for analysis and discussion. The presentation was done under the following headings:

4.1 Answers to research questions

4.2 Test of Null Hypotheses

4.3 Summary of major Findings

4.4 Discussions of Findings

4.1 Answers to Research Questions

Research Question One: What is the effect of guided discovery method on academic performance of students in economics in colleges of education in North-West, Nigeria?

The analysis of data used to answer research question one is as shown in table 3

Table 3: Mean and standard deviation showing effect of guided-discovery method on business education students' academic performance in Economics in colleges of education North-West, Nigeria

Variable	N	$\bar{x}$	SD	Mean Difference
Guided-discovery method	60	63.03	12.60	
				15.73
Lecture method	60	47.30	13.49	

Source: ***Field study (2018)***

Table 3 showed the effect of guided-discovery method on academic performance of business education students taught economics. The analysis revealed a mean performance score of 63.03 and standard deviation of 12.60 for students taught Economics using guided-discovery method, and a mean score of 47.30 and a standard deviation of 13.49 for students taught using lecture method. This indicated a mean

difference of 15.73 showing that guided-discovery method likely had positive effect on students' academic performance in Economics over the lecture method.

Research Question Two: What is the effect of think-pair-share method on academic performance of students in economics in colleges of education in North-West, Nigeria?

The analysis of data used to answer research question two is as shown in table 4

Table 4: Mean and standard deviation showing effect of think-pair-share method on business education students' academic performance in Economics in colleges of education North-West, Nigeria

Variable	N	$\bar{x}$	SD	Mean Difference
Think-pair-share method	60	64.37	12.23	
				17.07
Lecture method	60	47.30	13.49	

Source: ***Field study (2018)***

Table 4 showed the effect of think-pair-share method on academic performance of business education students taught economics. The analysis revealed a mean performance score of 64.37 and standard deviation of 12.23 for students taught economics using think pair method, and a mean score of 47.30 and a standard deviation of 13.49 for students taught using lecture method. This indicated a mean difference of 17.07 showing that think-pair-share method likely had positive on students' academic performance in economics over the lecture method.

Research Question Three: Is there any difference in the mean performance of students taught business economics using guided discovery method and think-pair-share method in colleges of education in North-West, Nigeria?

The analysis of data used to answer research question three is as shown in table 5

Table 5: Mean and standard deviation showing difference in academic performance of business education students taught economics using guided discovery method think-pair-share method in colleges of education North-West, Nigeria

Variable	N	$\bar{x}$	SD	Mean Difference
Guided discovery method	60	63.03	12.60	
				1.34
Think-pair-share method	60	64.37	12.23	

Source: ***Field study (2018)***

Table 5 showed the effect of think-pair-share method on academic performance of business education students taught economics. The analysis revealed a mean performance score of 63.03 and standard deviation of 12.60 for students taught Economics using guided discovery method, and a mean score of 64.37 and a standard deviation of 12.23 for students taught using think-pair-share method. This indicated a mean difference of 1.34 showing that think-pair-share method likely had positive effect on students' academic performance in economics over the guided discovery method.

Research Question Four: What is the difference in the mean performance of male and female students taught business economics using guided discovery method in colleges of education in North-West, Nigeria?

The analysis of data used to answer research question four is as shown in table 6

Table 6: Mean and standard deviation showing difference in academic performance of male and female business education students taught economics using guided-discovery method in colleges of education North-West, Nigeria

Variable	N	$\bar{x}$	SD	Mean Difference
Guided-discovery (male)	30	66.17	8.38	
				6.64
Guided-discovery (female)	30	59.53	15.04	

Source: ***Field study (2018)***

Table 6 showed the difference in academic performance of male and female business education students taught economics using guided-discovery method. The analysis revealed a mean performance score of 66.17 and standard deviation of 8.38 for male students taught Economics using guided-discovery method, and a mean score of 59.53 and a standard deviation of 15.04 for female students taught using discovery method. This indicated a mean difference of 6.64 showing that male students performed better than their female counterparts when taught economics using guided-discovery method.

Research Question Five: What is the difference in the mean performance of male and female students taught business economics using think-pair-share method in colleges of education in North-West, Nigeria?

The analysis of data used to answer research question five is as shown in table 7

Table 7: Mean and standard deviation showing difference in academic performance of male and female business education students taught economics using think-pair-share method in colleges of education North-West, Nigeria

Variable	N	$\bar{x}$	SD	Mean Difference
Think-pair-share (male)	30	66.41	8.84	
				4.44
Think-pair-share (female)	30	61.97	14.60	

Source: ***Field study (2018)***

Table 7 showed the difference in academic performance of male and female business education students taught economics using think-pair-share method. The analysis revealed a mean performance score of 66.41 and standard deviation of 8.84 for male students taught Economics using think-pair-share method and a mean score of 61.97 and a standard deviation of 14.60 for female students taught using think-pair-share method. This indicated a mean difference of 4.44 showing that male students performed better than their female counterparts when taught economics using think-pair-share method.

4.2 Hypotheses Testing

Hypothesis One: There is no significant effect of guided discovery method on academic performance of students in economics in colleges of education North-West, Nigeria

t-test analysis used to test null hypothesis two is as shown in table 8

Table 8: t-test analysis showing effect of guided discovery method on the academic performance of business education in Economics in colleges of education North-West, Nigeria

Model	$\bar{x}$	SD	Df	t-cal	Sig (2-tailed)
Guided discovery method	63.03	12.60	59	7.142	0.000
Lecture method	47.30	13.49	59		

P >.05

Source: ***Field study (2018)***

Table 8 presents an independent sample t-test analysis used to compare the mean difference between the performance of business education students taught economics using guided discovery method and those taught using lecture methods to ascertain the effect of the guided discovery method. The analysis revealed that the mean of performance score of students taught using guided discovery method was (63.03) and standard deviation (12.60) as against the mean of performance score of students taught using lecture method (47.30) and standard deviation (13.49) with degree of freedom of 59 respectively. The t-value for the model was calculated at (7.14) with α p-value at (0.000). The t-cal was greater than the t-tab of 0.196 and (0.000) α value was lower than the *a priori* significant p-value (0.05). The result, therefore, shows that significant difference existed between the mean performance of students taught economics using guided discovery method and those taught using lecture method, implying that guided discovery method significantly had effect on

business education students' academic performance in colleges of education, North-West, Nigeria. Hence, the null hypothesis was rejected.

Hypothesis Two: There is no significant effect of think-pair-share method on academic performance of students in economics in colleges of education North-West, Nigeria

t-test analysis used to test null hypothesis two is as shown in table 9

Table 9: t-test analysis showing effect of think-pair-share method on business education students' academic performance in Economics in colleges of education North-West, Nigeria

Model	$\bar{x}$	SD	Df	t-cal	Sig (2-tailed)
Think-pair-share method	64.37	12.23	59		
				4.76	0.000
Lecture method	47.30	13.49	59		

P >.05

Source: ***Field study (2018)***

Table 9 presents an independent sample t-test analysis used to compare the mean difference between the performance of students taught economics using think-pair-share method and those taught using lecture methods to ascertain the effect of the think-pair-share method. The analysis revealed that the mean of performance score of students taught using think-pair-share method was (64.37) and standard deviation (12.23) as against the mean of performance score of students taught using lecture method (47.30) and standard deviation (13.49) with degree of freedom of 59 respectively. The t-value for the model was calculated at (4.76) with α p-value at (0.000). The t-cal was greater than the t-tab of 0.196 and (0.000) α value was lower than the *a priori* significant p-value (0.05). The result, therefore, shows that significant difference existed between the mean performance of students taught economics using think-pair-share method and those taught using lecture method,

implying that think-pair-share method significantly had effect on business education students' academic performance in colleges of education, North-West, Nigeria. Hence, the null hypothesis was rejected.

Hypothesis Three: There is no significant difference in the mean performance of students taught business economics using guided discovery method and those taught using think-pair-share in economics in colleges of education North-West, Nigeria

t-test analysis used to test null hypothesis three is as shown in table 10

Table 10: t-test analysis showing difference in performance of business education students taught economics using guided discovery method and those taught using think-pair-share method

Model	$\bar{x}$	SD	Df	t-cal	Sig (2-tailed)
Guided discovery method	63.03	12.60	59		
				2.52	0.002
Think-pair-share method	64.37	12.23	59		

P >.05

Source: ***Field study (2018)***

Table 10 presents an independent sample t-test analysis used to compare the mean difference between the performance of business education students taught economics using guided discovery method and those taught using think-pair-share method. The analysis revealed that the mean of performance score of students taught using guided discovery method was (63.03) and standard deviation (12.60) as against the mean of performance score of students taught using think-pair-share method (64.37) and standard deviation (12.23) with degree of freedom of 59 respectively. The t-value for the model was calculated at (2.52) with α p-value at (0.002). The t-cal was greater than the t-tab of 0.196 and (0.002) α value was lower than the *a priori* significant p-value (0.05). The result, therefore, shows that significant difference existed between the mean performance of business education students taught

economics using guided discovery method and those taught using think-pair-share method, implying that think-pair-share method significantly had more effect on business education students' academic performance in colleges of education, North-West, Nigeria. Hence, the null hypothesis was rejected.

Hypothesis Four: There is no significant difference in the mean performance of male and female students taught business economics using guided discovery method in colleges of education North-West, Nigeria

t-test analysis used to test null hypothesis four is as shown in table 11

Table 11: t-test analysis showing difference in Performance of male and female business education students taught economics using guided discovery method in colleges of education North-West, Nigeria

Model	$\bar{x}$	SD	Df	t-cal	Sig (2-tailed)
Guided discovery (male)	66.17	8.38	29		
				5.12	0.000
Guided discovery (female)	59.53	15.04	29		

P >.05
Source: ***Field study (2018)***

Table 11 presents an independent sample t-test analysis used to compare the mean difference between the performance of male and female business education students taught economics using guided discovery method. The analysis revealed that the mean of performance score of male students taught using guided discovery method was (66.17) and standard deviation (8.38) as against the mean of performance score of female students (59.53) and standard deviation (15.04) with degree of freedom of 29 respectively. The t-value for the model was calculated at (5.12) with α p-value at (0.000). The t-cal was greater than the t-tab of 0.196 and (0.000) α value was lower than the *a priori* significant p-value (0.05). The result, therefore, shows that significant difference existed between the mean performance of male and female business education students taught economics using guided discovery method,

implying that male students significantly had better academic performance than their female counterparts in colleges of education, North-West, Nigeria. Hence, the null hypothesis was rejected.

Hypothesis Five: There is no significant difference in the mean performance of male and female students taught business economics using think-pair-share method in colleges of education North-West, Nigeria

t-test analysis used to test null hypothesis five is as shown in table 12

Table 12: t-test analysis showing difference in Performance of male and female business education students taught economics using think-pair-share method in colleges of education North-West, Nigeria

Model	$\bar{x}$	SD	Df	t-cal	Sig (2-tailed)
Think-pair-share (male)	66.41	8.84	29		
				4.16	0.001
Think-pair-share (female)	61.97	14.60	29		

P >.05

Source: ***Field study (2018)***

Table 12 an independent sample t-test analysis used to compare the mean difference between the performance of male and female business education students taught economics using think-pair-share method. The analysis revealed that the mean performance score of male students taught using think-pair-share method was (66.41) and standard deviation (8.84) as against the mean of performance score of female students (61.97) and standard deviation (14.60) with degree of freedom of 29 respectively. The t-value for the model was calculated at (4.16) with α p-value at (0.001). The t-cal was greater than the t-tab of 0.196 and (0.001) α value was lower than the *a priori* significant p-value (0.05). The result, therefore, shows that significant difference existed between the mean performance of male and female business education students taught economics using think-pair-share method, implying that male students significantly had better academic performance than their

female counterparts in colleges of education, North-West, Nigeria. Hence, the null hypothesis was rejected.

4.3 Summary of Major Findings

The study on research question one indicated a mean difference of 15.73 in favour of guided-discovery method. The result shows that guided-discovery method likely had effect on students' academic performance in economics over the lecture method. This is confirmed by the test of null hypothesis one where the t-cal (7.142) which is greater than t-tab (0.196) and α p at 0.000 being lower than the a priori significant α p at (0.05).

The study results on research question two showed a mean difference of 17.07 showing that think-pair-share method likely had effect on students' academic performance in Economics over the lecture method. This is confirmed by the test of the null hypothesis two in which the t-cal (4.765) greater than t-tab (0.196) with α p at (0.000) lower than a priori α significant at (0.05).

The study results on research question two showed a mean difference of 1.34 indicating that think pair method likely had more effect on students' academic performance in economics over the guided-discovery method. This is confirmed by the test of null hypothesis three where the t-cal (2.529) was greater than t-tab (0.196) and α at p (0.002) being lower than a priori significant at (0.05).

The study on research question four further indicated a mean difference of 6.64 showing that male students performed better than their female counterparts when taught economics using guided-discovery method. This is confirmed by the test of the

null hypothesis four where the t-cal (5.120) was greater than t-tab (0.196) and α at p (0.000) being lower than a priori significant at (0.05).

The study on research question five further indicated a mean difference of 4.44 showing that male students performed better than their female counterparts when taught economics using think-pair-share method. This is confirmed by the test of the null hypothesis five where the t-cal (4.167) was greater than t-tab (0.196) and α at p (0.001) being lower than a priori significant at (0.05).

4.4 Discussions of Major Findings

Research question one of the study indicated a mean difference of 15.73 between guided discovery and lecture methods in favour of guided-discovery method which had effect on business education students' academic performance in economics over the lecture method. Research finding by Ibe (2013) emphasized that guided-discovery method has recently been emphasized in modern teaching. The author stressed that because guided-discovery method is a teaching technique that encourages students to take a more active role in their learning process by answering a series of questions or solving problems designed to introduce a general concept which makes it a teaching method that arose students' interest. The method similarly leads the learner towards insights and generalisations, rather than providing them on a plate, hence has been recommended for teaching and learning situations. In another study, Bamiro (2015) viewed guided discovery, as a strategy which helps to develop in learners thinking and decision-making and decision-making abilities. In guided discovery the answer to a problem is already known to the teacher but he wants the learner to

discover it by himself. The teacher guides the learner's progress by means of command and cues.

Research question two of the study with refine to which research question results further showed a mean difference of 17.07 between think-pair-share and lecture methods in favour of think pair method, showing that think pair method had effect on business education students' academic performance in Economics over the lecture method. Teaching students with learning difficulties reveals that they predominantly focused on ability issues, while little concern was given to achievement (Hamdan, 2017). Some authors were greatly concerned with achievement learning difficulties and their studies, in general, sought to develop remedial strategies basically for students having problems related to attention, memory, perception, and motivation, have ineffective skills in the computational operations and other problems related to strategies using think pair, all of which contribute to performance (Martha, 2015).

Research question three of the study results showed a mean difference of 1.34 between guided discovery and think-pair-share methods in favour of think pair method, indicating that think-pair-share method had more effect on students' academic performance in Economics over the guided discovery method. The finding of this study agrees with that of Luntungan (2012) and Ibe (2013) who found that the benefit is that TPS can improve students' confidence and students feel more confident when they discuss with their partners first before they have to speak in a larger group or in front of the class. They further stated that TPS gives all students the opportunity to discuss their ideas. At this knowledge construction stage, the students will find out

what they know and do not know, which is very valuable for students. Therefore, students actively engaged in thinking. From the opportunity, students develop more critical thinking to discuss and reflect on a given topic. Students have an opportunity to share their thinking with at least one other student, thereby increasing their sense of involvement. Think-Pair-Share technique improves the quality of the students' responses. Thereby enhances their oral communication skills. Therefore, the responses received are often more intellectually concise since students have had a chance to reflect their ideas. The study is also in line with a study by Bamiro (2015) who found that the mean score of the think pair group were slightly higher than the lecture group. Bamiro (2015) showed that teaching methods did have significant effect on students' scores on achievement test. Several studies showed that students' attitudes have a relationship with teaching method and academic performance. It was found that the methods used seemed to affects students' attitude toward the class, and this may be the factor that most influences Leaning. A study by Ajaja and Eravwoke (2010) showed a relationship between students' attitude and their academic performance. They suggested that students' positive attraction toward certain kinds of teaching method may help increase their academic performance. The researcher maintained suggested that when students have a positive attitude toward something, they will do the task well.

Research question four of the findings indicated a mean difference of 6.64 between male and female business education students taught economics using guided discovery method in favour of male students, implying that male students performed better than their female counterparts when taught economics using guided-discovery

method. Study findings show that male students achieve better than female students in certain settings, while female students outperform male students in the other settings Ovey, (2010) reported that while male performed better in some studies, in other studies female students performed higher than their male counterparts. However, male students' dominance in enrolment proportion could be an added factor. However, Ovey, (2010) mentioned that such variation is only minor, suggesting that female students are not intellectually backward. Luntungan (2012) posited that the method adopted by the teacher may promote or hinder learning among sex. Method of teaching adopted may sharpen mental activities which are the bases of social power or may discourage initiatives and curiosity thus making self-reliance and survival differences among gender.

Research question five of the study further indicated a mean difference of 4.44 between male and female business education students taught economics using think-pair-share method, showing that male students performed better than their female counterparts when taught economics using think-pair-share method. Study findings show that male students achieve better than female students in certain settings, while female students outperform male students in the other settings Ovey, (2010) reported that other studies did not show any significant difference between same sex. However, male students' dominance in enrolment proportion has been an added factor. However, Ovey, (2010) mentioned that such variation is only minor, suggesting that female students are not intellectually backward.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter was presented under the following sub-headings; -

5.1 Summary

5.2 Contributions to Knowledge

5.3 Conclusion

5.4 Recommendations

5.5 Suggestions for further study

5.1 Summary

This research study was conducted to find out the effects of guided-discovery and think-pair-share methods on academic performance of business education students in economics in colleges of education North-West, Nigeria. The study had five specific objectives, five research questions and five null hypotheses. The researcher adopted quasi- experimental design with pre-test, post-test, and control groups. The population of the study comprises of one hundred and eighty (180) NCE II Business education students during 2017/2018 academic session. All the students' population was divided into three intact classes and used as sample size for the study. Two instruments Economic Achievement Tests (EAAT) and was used for data collection during post-test. The tests were marked using a drawn marking scheme. Mean score and standard deviation were used to answer the research questions. t-test was used to test the null hypotheses stated at 0.05 levels of significance.

The study findings in research question one revealed that guided-discovery method likely had effect on students' academic performance in economics over the lecture method. This is confirmed by the test of null hypothesis one where the t-cal (7.142) which is greater than t-tab (0.196) and α p at 0.000 being lower than the a priori significant α p at (0.05).

The findings in research question two revealed that think-pair-share method likely had effect on students' academic performance in Economics over the lecture method. This is confirmed by the test of the null hypothesis two in which the t-cal (4.765) greater than t-tab (0.196) with α p at (0.000) lower than a priori α significant at (0.05).

The findings in on research question three revealed that think pair method likely had more effect on students' academic performance in economics over the guided discovery method. This is confirmed by the test of null hypothesis three where the t-cal (2.529) was greater than t-tab (0.196) and α at p (0.002) being lower than a priori significant at (0.05).

The findings on research question four further revealed that male students performed better than their female counterparts when taught economics using guided-discovery method. This is confirmed by the test of the null hypothesis four where the t-cal (5.120) was greater than t-tab (0.196) and α at p (0.000) being lower than a priori significant at (0.05).

The findings on research question five that male students performed better than their female counterparts when taught economics using think-pair-share method. This is confirmed by the test of the null hypothesis five where the t-cal (4.167) was greater than t-tab (0.196) and α at p (0.001) being lower than a priori significant at (0.05).

5.2 Contribution to knowledge

In line with the findings of this study, the following contribution to knowledge are made:

1. Guided-discovery teaching method promoted business education students' academic performance in economics compared to when taught using lecture ($\geq p = 0.000$).
2. Think-pair-share method developed business education student's academic performance in economics compared to when taught using guided discovery method ($\geq p = 0.000$).
3. Male business education students understand economics better than their female counterparts when taught using both guided discovery and think-pair-share methods **(**$\geq p = 0.000$).

5.3 Conclusion

Based on the findings of this study research, it can be concluded that the guided-discovery and think-pair-share positively affected business education students' academic performance in economics. However, think-pair-share method had more effect on their academic performance for which can serve to promote students learning processes, information, skills and organize knowledge in their cognitive (thinking) domain. Although guided discovery and think-pair-share methods allow students the opportunity to explore their potentials, think-pair-share method did proved better to enhanced students' academic interests in the context of economics. The methods with smaller classes, can be better approaches to present instructions within the context of economics that allow student-centred learning approach being advocated by

curriculum experts. Hence, can be used to help students' understanding in Economics class and improve their learning, how they interconnect learning processes, and how they develop more sophisticated thinking skills.

5.4 Recommendations

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

1. It is recommended that Departments in colleges of education should encourage the lecturers the use of guided discovery and think-pair-share methods for teaching economics in their college to improve academic excellence.
2. There is the need for the authorities of colleges of education to encourage academic staff to participate in workshop and seminar that will sensitize them on the effectiveness of using the right teaching methods for instruction peculiar to at all levels and courses.
3. Curriculum implementers in colleges of education should gazette all relevant teaching methods particularly guided discovery and think-pair-share method and make them part of their curriculum to be enforced to all lecturers for uniformity.
4. In order to promote the implementation of the use of guided discovery and think-pair-share methods, the Federal Ministry of Education through the National Commission for Colleges of Education should earmark grants through budgetary allocation for staff training in pedagogy and purchase of equipments and facilities for effective implementation of in all colleges of education.
5. In order to make students learn and understand economics they should be encouraged to participate in group work, so that before they are taught, they will be able to in their own ways read and understand economics better.

5.5 Suggestions for further study

Based on the contribution of the study, it was suggested that:

1. The need for a study on the assessment of the effectiveness of teachers' attitudes to the use of instructional methods on students' performance.
2. Assessment on the use of Guided-discovery method of teaching method for promoting business education students' academic performance in economics.
3. Evaluation of the usage of Think-pair-share method of teaching among business education student's academic performance in economics.

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APPENDIX I

INTRODUCTION LETTER

DEPARTMENT OF VOCATIONAL & TECHNICAL EDUCATION
AHMADU BELLO UNIVERSITY, ZARIA - NIGERIA

Telephone: 069-51755, 50692

VICE CHANCELLOR: Professor Ibrahim Garba, *B.Sc (Hons) Geology, M.Sc (Mineral Exploration) ABU, Ph.D Geology (London), D.I.C., FNMGS*
INTERIM HEAD OF DEPARTMENT: Dr. Sani Ibrahim, *B.B.Ed, M.Ed, Ph.D (ABU)*

17th July, 2018

Your Ref: P14EDVE8053 Date: _____

Our Ref: _____

LETTER OF IDENTIFICATION
FADILAH KABIR – P14EDVE8053

This is to certify that Fadilah KABIR is a postgraduate student – M.Sc (Ed) Business Education in this Department. She is carrying out a research on Effects of guided-discovery and think-per-share methods on students' academic performance in economics in Colleges of Education in North – west Nigeria.

Kindly giver her every assistance she may require.

Dr. Sani Ibrahim
Head of Department

APPENDIX II

PRE-TEST

Answer all questions and all questions carry equal marks

1. ……. Defines economics as an inquiry into the nature and causes of wealth of nation.
2. Economics is defines as science which studies human behaviour as a relationship between end and scare …….
3. All these are basic concept of economics except: a) wants b) scarcity c) money
4. …….may be defined as insatiable desire or needs by human being to own goods and services for satisfaction.
5. …….is defined as the limited supply of resources which are used for the satisfaction of unlimited wants.
6. a) …… b)……. c)……. d)……. e)…….are the basic concepts of economics
7. a)…… b)…… are the branches of economics
8. …….can be defined as a system of selecting or chosen one out a number of alternatives

APPENDIX III

PRE-TEST MARKING SCHEME

Questions:

Q1: Adam Smith (10 marks)

Q2: Lionel C. Robbins (10 marks)

Q3: Money (10 marks)

Q4: Wants (10 marks)

Q5: Scarcity (10 marks)

Q6: wants, scarcity, scale of preferences, choice and opportunity cost (25 marks, 5 marks each)

Q7: Micro and Macro economics (20 marks)

Q8: Choice (5 marks)

APPENDIX IV

POST-TEST

ANSWER ALL QUESTIONS

1a. Define production

1b. Discuss the types of goods you know

2a. What is land?

2b. Characteristics of land

2c. Why is land very important to man?

3a. Define Labour

4a. Define capital

4b. List five characteristics of capital

4c. State and explain the types of capital

5a. Define entrepreneur

5b. Explain five characteristics and five important of entrepreneur.

APPENDIX V

POST-TEST MARKING SCHEME

Q1. Production is defined as the various economic activities aimed at the creation of goods and services and the distribution of these to the final consumers for the satisfaction of human wants.

Production can also be defined as the creation of utility. All goods and services must produce utility. This means that they must be capable of satisfying certain human wants. Production includes the creation of tangible goods such as clock, cars, tables, TV sets, houses, book, etc.

1b. Types of goods

a. ***Consumer goods:*** these are goods and services that can satisfy the consumer's immediate needs. These goods do not require further process of production for their use by the consumers. Examples of consumer goods include motor cars, milk, cake, radio, television set, the service of a soldier, hair dresser, barber, nurse, lawyer etc.

b. ***Producer or capital goods:*** these are goods used by people to produce some other commodities or services. Example include buildings, motor cars, lorries, tailor's tool, machines etc. These goods are used to carry out productive activities.

Q2. Land is defined as a free gift of nature. However, land does not only include land surface of the earth but all other gifts of nature or natural resources like forest, mineral resources, rivers, oceans, atmosphere etc. Unlike other factors of production, the supply of land is limited. The reward of land is rent.

Characteristics of Land

1. Land is immobile
2. The supply of land is fixed
3. Land is free gift
4. Land is subject to diminishing returns
5. Variability
6. Rent.

Importance of land to man

1. Farming purpose: land is used for the cultivation of both food and cash crops, e.g maize, yam, cocoa, etc. Water provides irrigation for farming activities in dry areas.
2. Livestock purpose: Land is also used for livestock production (i.e rearing of animals), e.g cattle, sheep, goat, poultry, etc.
3. Fishery purposes: Land is used for fishery in rivers, seas and oceans. Fish ponds are also developed.
4. Wild life purpose: Land is used for wild life conservation, e.g game reserves and national parks.
5. As collateral security: Land with certificate of occupancy (C of O) is used widely as collateral to secure loans from banks especially in urban centers.
6. Construction purposes: Land is used for construction purposes e.g roads, airports, railway etc. Sand, stone, gravel, granite, etc. are raw materials used for building and road construction.

7. Social or recreational purpose: Land can also be used for social and recreational purposes, e.g stadia, schools, markets, cemeteries etc.
8. Residential buildings: residential buildings and housing estates are sited on land.
9. For industrial building: industrial buildings are also cited on land.
10. Sources of minerals: Land is the source of minerals like limestone, gold, tin, petroleum etc. which serve as revenue to the government.
11. Transportation purposes: Land, air and bodies of water like rivers, oceans, lakes etc. serve for transportation of people and goods from one place to another.

Q3. Labor as a factor of production is defined as all forms of human efforts put into or utilized in production. It also refers to man's mental and physical exertions generated in the process of production.

Human beings provide the necessary labor which combines with other factors to provide goods and services. The reward for labour as a factor of production comes in form of wages and salaries.

Types of labour

There are two main types of labor. These are:

(i) Unskilled labour; This category of labour requires little or no formal education. They do not use mental effort, rather, they make use of physical effort or energy in production, hence their jobs are popularly referred to as **brown collar jobs.** As a result of their low level of education, with some kind of training, they are usually employed as guards, messengers, cleaners, gardeners in companies and other places of employment.

(ii) Skilled labor: This category of labor makes use of their mental effort in productive activities. This labor has undergone a relatively long and specialized type of training in institutions of higher learning. They usually hold administrative and managerial positions, e.g. accountants, lawyers, engineers, medical doctors, teachers, etc. Jobs by this category of workers arc popularly referred to as white collar jobs.

Characteristics or features of labor

(1) Labor is mobile: Labor is mobile both geographically (from one place to the other) and occupational (from one job to the other).

(2) Labor has feelings: Labor cannot be used anyhow as its consent must be sort before it is used in production.

(3) Labor is skillful: labor becomes skillful through education and training.

(4) Labor is a human factor: labor is a human factor hence it supplies can easily be controlled.

(5) Labor requires motivation: for labor to perform efficiently and increase its productivity, it must be motivated in one way or the other.

(6) Labor is not predictable: labor as factor of production cannot be easily predicted.

(7) Labor is perishable: knowledge can diminish over time as a result of continue unemployment, under employment, age and death.

(8) Labor controls other factors of production: labor controls and combines other factors of production to make them more meaningful to the society.

Q4. Capital may be defined as a man-made asset used in production. In other word, capital refers to man-made wealth or goods used to produce other goods and services.

It may also be defined as the stock of previous wealth invested in order to produce future wealth.

Characteristics of capital

1. Capital is man-made
2. Capital is durable
3. Capital exist in different forms
4. Capital is subject to depreciation
5. It ensures large scale production
6. It promotes division of labor

Types of capital

a. Fixed capital
b. Circulatory or working capital
c. Current and liquid capital
d. Social capital

1. **Fixed capital:** these are assets which are not used up in the course of production. Fixed assets include those durable assets of a business that can last for a very long time. These asset or capital does not change their form in the process of production. Examples
2. **Circulatory or working capital**: These are assets which are used up in the course of production. These consist of capital goods which either change their form or are used up in process of production. Example of working capital include raw materials, water, fuel, etc.

3. **Current or liquid capital**: Current capita are the type of capital that are required for the day to day running of productive activities. They are also changed from one form to another. Examples include finished goods, money, etc.
4. **Social capital:** This includes those forms of capital or assets provided by the government that aid production. Examples of social capital are amenities provided by the government such as roads, electricity, water, telephones, etc. These amenities, when they are readily available, aid the process of production.

Important of capital

1. Capital facilitates production: Availability of adequate capital to any business outfit helps mass production of goods and services.
2. Capital boosts efficiency: availability of capital to a business enterprise boost efficiency because more machines are used in production rather than by manual labour.
3. It assist in location of industry: The availability of social capital like electricity, goods road, water, etc. assists to a large extent the location of a particular industry. It also affects the size and nature of the industry to be so located.
4. It increase standard of living: Acquisition of capital to by either individuals or government helps them to have a higher purchasing power, which enables them to have assets and other properties that aid or promote standard living.
5. Production of quality goods: The availability of capital to any firm aids the production of quality goods and services as a result of the purchase of modern machines.

Q5. An entrepreneur can be defined as the factor of production that co-ordinates and organizes other factors of production (land, labor, capital) in order to produce goods and services. The entrepreneur bears the risk and takes major decisions of the business. He risks his capital in setting up the business with the aim of obtaining maximum profit.

In summary, the entrepreneur is the person who co-ordinates, control and organizes the process of production in order to make maximum output at minimum cost thereby making benefits. The reward for entrepreneur is profit.

Characteristics of entrepreneur

1. Risk bearing: He risks his capital in the course of investment and whatever comes out of it, whether good or bad, he was to take.
2. Organization: he organizes productive resources of goods and services.
3. Decision making: he takes decisions in the course of production, which can bring out better results.
4. Controls other factors: he has absolute control over other factors of production, e.g their combinations in order to get maximum production at minimum cost.

Importance of entrepreneur

1. Decision making: the entrepreneur takes decision during production process. He may take decision on what to produce, quantity to produce, what to supply, at what price to sell, etc. Good decision taken will bring out good results.
2. Provision of capital: the entrepreneur is responsible for the provision of capital for the business. The availability of enough capital will determine the level of

success of the business. His capital may include physical cash, motor vehicles, building, plants and machinery.

3. Risk bearing: the entrepreneur bears the risk associated with the business, lots of risks are involved in all business set up, e.g. stealing, bad weather, fire, etc. When his goods are in high demand, he makes profit but when the reverse is the case, he suffers losses.
4. Efficient management: the entrepreneur also ensures efficient management of the business by combining the other factors of production in order to maximize production and profits.
5. Efficient organization: the entrepreneur also ensures an effective organization in the business. He ensures that he has qualified personnel's and assigns duties to them. He supervises them to ensure effective operations in the business.

APPENDIX VI

LESSON PLAN (GUIDED-DISCOVERY METHOD)

WEEK ONE

Name of Teacher:	Fadila Kabir
College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Production
Time:	09.00am-10.00am
Duration:	One Hour
General Objective:	To teach the students how to understand production.
Behavioral objectives:	At the end of this lesson, students should be able to: i. Define production ii. Define factors of production.
Methods of teaching:	**Guided Discovery Method**
Previous knowledge:	Students have been taught Economics & its Definition
Introduction:	The teacher introduces the lesson by asking students question as to define economics

PRESENTATION OF THE LESSON

Step I:	The teacher should explain some ways of local production to give the students an insight on the definition of production.

Student should listen to the teacher while understanding how local production of goods is made so as to explore the definition of production.

Step II: The teacher should allow the students some minutes to define production based on the explanation he made on locally made products.

Students should define production in relation to what they heard from the teacher on how local products are made.

Step III: The teacher should further explain the processes of production.

Students should listen to the teacher and explore the processes of production.

Step IV: The teacher should explain fully the process of production using examples in locally made products to allow the students categorize the processes.

Students should categorize the processes of production based on extraction, construction and others. From the explanation of the teacher.

SUMMARY: The teacher goes over the lesson and highlights the main point worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking them the following questions:

1. Define Production
2. Explain how production occurs

APPENDIX VII

LESSON PLAN (THINK-PAIR-SHARE METHOD)

WEEK ONE

College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Production
Time:	10.00am-11.00am
Duration:	One hour
General Objective:	To teach the students how to understand production.
Behavioral objectives:	At the end of this lesson, students should be able to: i. Define production ii. Define factors of production.
Methods of teaching:	**Think Pair-share Method**
Previous knowledge:	Students have been taught Economics & its Definition
Introduction:	The teacher introduces the lesson by asking students question as to define economics
Step I:	The teacher should group the student into pair for easy class discussions Student should remain in group as think pair share groups.
Step II:	The teacher should define the production and explain in details the definition of production.

Student should listen to the teacher and ask question for clarification on the definition of production

Step III: The teacher should give the student task of discussion on processes of production.

The student should discuss different processes of production such as extraction, construction etc. and share among themselves.

Step IV: The teacher should ask the processes of production individually.

The student should respond to the teachers question with different explanations on processes of production.

Step V: The teacher will fully explain the processes of production after hearing from the student and make it understand clearly.

Student should listen to the teacher for the explanation and take the right direction and the processes.

SUMMARY: The teacher goes over the lesson and highlights the main point worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking them the following questions:

1. Define Production
2. Explain how production occurs.

APPENDIX VIII

LESSON PLAN (LECTURE METHOD)

WEEK ONE

Name of Teacher:	Fadila Kabir
College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Production
Time:	11.00am-12.00pm
Duration:	One Hour
General Objective:	To teach the students how to understand Production.
Behavioral objectives:	At the end of this lesson, students should be able to:
	i. Define production
	ii. Define factors of production.
Methods of teaching:	**Lecture Method**
Previous knowledge:	Students have been taught Economics & its Definition
Introduction:	The teacher introduces the lesson by asking students question as to define production.

PRESENTATION OF THE LESSON

STEP 1:	The teacher will deeply explain and define production
STEP II:	Teacher should define Production while students listen

STEP III: The teacher goes further by writing the definition of production and explains more with several examples about production and students copy the note while the teacher is writing.

SUMMARY: The teacher goes over the lesson and highlights the main point worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking them the following questions:

1. Define Production
2. Explain how production occurs

APPENDIX IX

LESSON PLAN (GUIDED-DISCOVERY METHOD)

WEEK TWO

Name of Teacher:	Fadila Kabir
College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Land
Time:	09.00am-10.00am
Duration:	One Hour
General Objective:	To teach the students how to understand land.
Behavioral objectives:	At the end of this lesson, students should be able to: iii. Define land as factors of production iv. Characteristics of land
Methods of Teaching:	**Guided Discovery Method**
Previous knowledge:	Students have been taught Economics & its Definition
Introduction:	The teacher introduces the lesson by asking students question as to define Land as factors of production.

PRESENTATION OF THE LESSON

Step I:	The teacher should define land to give the students an insight on what is the definition of land as factors of production.

Student should listen to the teacher to understand land so as to explore the definition of land as factors of production.

Step II: The teacher should allow the students some minutes to define land as factors of production based on the explanation he made.

Students should define land in relation to what they heard from the teacher on land.

Step III: The teacher should further explain the characteristics of land.

Students should listen to the teacher and explore land as factor of production.

Step IV: The teacher should explain fully land using examples of their environment so as to allow the students understand land as factors of production.

Students should explain based on their understanding the characteristics of land from the explanation of the teacher.

SUMMARY: The teacher goes over the lesson and highlights the main point worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking them the following questions:

1. Define land as factor of production
2. Explain the characteristics of land

APPENDIX X

LESSON PLAN (THINK-PAIR-SHARE METHOD)

WEEK TWO

College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Land
Time:	10.00am-11.00am
Duration:	One Hour
General Objective:	To teach the students how to understand land.
Behavioral objectives:	At the end of this lesson, students should be able to: iii. Define land as factors of production iv. Characteristics of land
Methods of Teaching:	**Think Pair-share Method**
Previous knowledge:	Students have been taught Economics & its Definition
Introduction:	The teacher introduces the lesson by asking students question as to define Factors of Production
Step I:	The teacher should list and explain the factor of production to student as land, labour, capital, and entrepreneur Students will listen to the teacher and apprehend the factors of production.

Step II: The teacher should distribute the students into pair-groups and ask them to discuss on characteristics of land based on their understanding of land as factor of production.

Student should discuss in pair while thinking finding out the features/characteristic of land.

Step III: The teacher should ask the student to form different pairs to state thought about the characteristics of land as factor of production.

Student should respond differently on the characteristics of land as factor of production.

Step IV: The teacher should correct the student by pointing out the characteristics of land where the student mismatched for the student to be clear and understand.

SUMMARY: The teacher goes over the lesson and highlights the main point worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking them the following questions:

1. Define Land as factor of production
2. Characteristics of land

APPENDIX 'XI'

LESSON PLAN (LECTURE METHOD)

WEEK TWO

Name of Teacher:	Fadila Kabir
College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Land
Time:	11.00am-12.00pm
Duration:	One Hour
General Objective:	To teach the students how to understand land.
Behavioral objectives:	At the end of this lesson, students should be able to: i. Explain the meaning of land as factors of production and its characteristics
Methods of teaching:	**Lecture Method**
Previous knowledge:	Students have been taught lesson on Production & Definition of production
Introduction:	The teacher introduces the lesson by asking students question as to Land

PRESENTATION OF THE LESSON

Step 1:	Explain the land as one of the factors of production
Step II:	Teacher should explain the characteristics of land

Step III: The teacher goes further by writing the definition of land as factors of production and the characteristics of land and explain more with several examples.

SUMMARY: The teacher goes over the lesson and highlights the main point worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking them the following questions:

1. Define land as factors of production
2. Characteristics of land

APPENDIX XII

LESSON PLAN (GUIDED-DISCOVERY)

WEEK THREE

Name of Teacher:	Fadila Kabir
College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Labour
Time:	09.00am-10.00am
Duration:	One hour
General Objective:	To teach the students how to understand Labour.
Behavioral objectives:	At the end of this lesson, students should be able to: i. Define labour as factors of production ii. Explain the characteristics of labour
Methods of teaching:	**Guided Discovery**
Previous knowledge:	Students have been taught the definition of land and its characteristics
Introduction:	The teacher introduces the lesson by asking students question as to explain what is labour

PRESENTATION OF THE LESSON

Step 1: the teacher gives the definition of labour

Step II: Teacher should further explain the characteristics of labour while students listen to the teacher while the explanation is going on

Step III: The teacher should go further by writing the meaning of labour and how labour becomes the factors of production and explains more on how it boosts production and students copy the note while the teacher is writing on the chalk.

SUMMARY: The teacher goes over the lesson again and highlights the main point that is worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking the student the following questions:

1. Define labour
2. Characteristics of labour

APPENDIX XIII

LESSON PLAN (THINK-PAIR-SHARE METHOD)

WEEK THREE

College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Labour
Time:	10.00am-11.00am
Duration:	One Hour
General Objective:	To teach the students how to understand labour.
Behavioral objectives:	At the end of this lesson, students should be able to: i. Define labour ii. Explain the characteristics of labour.
Methods of teaching:	**Think Pair-share Method**
Previous knowledge:	Students have been taught land and it characteristics
Introduction:	The teacher introduces the lesson by asking students question as to define labour
Step I:	The teacher should ask the student opinion on how labour become factor of production. Student should think in pair, share ideas among themselves while teacher is waiting.

Step II: The teacher should allow the student to give their opinion differently on how land become factor of production.

Student should start responding with different ideas and perception on how land become factor of production

Step III: The teacher should explain fully how land become factor of production based on the student perception and how it is correct.

Student should jot the correction as explained by the teacher for clarity and more understanding.

Step IV: The teacher should correct the student by pointing out the characteristics of labour where the student mismatched for the student to be clear and understand.

SUMMARY: The teacher goes over the lesson and highlights the main point worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking them the following questions:

1. Define labour
2. Explain characteristics of labour

APPENDIX XIV

LESSON PLAN (LECTURE METHOD)

WEEK THREE

Name of Teacher:	Fadila Kabir
College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Labour
Time:	11.00am-12.00pm
Duration:	One hours
General Objective:	To teach the students how to understand Labour.
Behavioral objectives:	At the end of this lesson, students should be able to: i. Define labour ii. Explain the characteristics of labour
Methods of teaching:	**Lecture Method**
Previous knowledge:	Students have been taught the definition of labour and its characteristics
Introduction:	The teacher introduces the lesson by asking students question as to explain what is labour

PRESENTATION OF THE LESSON

Step 1:	Definition of labour

Step II: Teacher should explain characteristics of labour while students listen

Step III: The teacher goes further by writing the meaning of labour and explains more on how it boost production and students copy the note while the teacher is writing.

SUMMARY: The teacher goes over the lesson and highlights the main point worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking them the following questions:

3. Define labour
4. Characteristics of labour

APPENDIX XV

LESSON PLAN (GUIDED DISCOVERY METHOD)

WEEK FOUR

College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Capital
Time:	09.00am-10.00am
Duration:	One Hour
General Objective:	To teach the students how to understand capital.
Behavioral objectives:	At the end of this lesson, students should be able to: i. Define Capital ii. Define capital as factors of production.
Methods of teaching:	**Guided Discovery**
Previous knowledge:	Students have been taught production, land and labour
Introduction:	The teacher introduces the lesson by asking the students question what is capital
Step I:	The teacher should define capital to give the students an insight on what is the definition of capital as factors of production. Student should listen to the teacher to understand capital so as to explore the definition of capital as factors of production.

Step II: The teacher should allow the students some minutes to define capital as factors of production based on the explanation he made.

Students should define capital in relation to what they heard from the teacher on capital.

Step III: The teacher should further explain the capital and how it become factors of production.

Students should listen to the teacher and explore capital and how it becomes factor of production.

Step IV: The teacher should explain fully entrepreneur and how it serves as factors of production so as to allow the students understand entrepreneur as factors of production.

Students should explain based on their understanding the entrepreneur from the explanation of the teacher.

SUMMARY: The teacher goes over the lesson and highlights the main point worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking them the following questions:

1. Define Capital
2. Explain how capital and entrepreneur become factors of production

APPENDIX XVI

LESSON PLAN (THINK-PAIR-SHARE METHOD)

WEEK FOUR

College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Capital
Time:	10.00am-11.00am
Duration:	One Hour
General Objective:	To teach the students how to understand capital.
Behavioral objectives:	At the end of this lesson, students should be able to: i. Define Capital ii. Define capital as factors of production.
Methods of teaching:	**Think Pair-share Method**
Previous knowledge:	Students have been taught Economics & its Definition
Introduction:	The teacher introduces the lesson by asking students question as to define capital
Step I:	The teacher should ask the student to think in pairs and share among themselves their understanding on capital as factor of production. Student should think in pair and come up with different perceptions on capital as factor of production.
Step II:	The teacher should ask the student to state their perception of capital as factor of production.

Student should respond by giving different perception and understanding on capital as factor of production.

Step III: The teacher should explain fully the capital and how it becomes factor of production.

Student should jot for more understanding.

Step IV: Teacher should go ahead to explain how entrepreneur serve as factor of production using local examples.

Student should listen to the teacher and think in pairs to come up with more example of entrepreneur and how it become factor of production.

Step V: The teacher should explain fully the term entrepreneur after students give different examples.

Student should jot the clear explanations on entrepreneur as factor of production from the teacher.

SUMMARY: The teacher goes over the lesson and highlights the main point worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking them the following questions:

i. Define Capital
ii. Explain how capital and entrepreneur become factors of production

APPENDIX XVII

LESSON PLAN (LECTURE METHOD)

WEEK FOUR

College:	Federal College of Education, Zaria
Level:	NCE ONE
Average Age:	20 – 25 years
Subject:	Economics
Topic:	Capital
Time:	11.00am-12.00pm
Duration:	One Hour
General Objective:	To teach the students how to understand capital.
Behavioral objectives:	At the end of this lesson, students should be able to: i. Define Capital ii. Define capital as factors of production.
Methods of teaching:	**Lecture Method**
Previous knowledge:	Students have been taught production, land and labour
Introduction:	The teacher introduces the lesson by asking the students question what is capital
Step I:	The teacher should define capital to the students Student should listen to the teacher to understand capital so as to explore the definition of capital as factors of production.

Step II: The teacher should allow the students to define capital as factors of production based on the explanation he made.

Students should define capital to what they heard from the teacher.

Step III: The teacher further explain capital as factors of production.

Students should listen to the teacher and explore capital and how it becomes factor of production.

Step IV: The teacher should explain entrepreneur and how it serves as factors of production.

Students should explain based on their understanding the entrepreneur from the explanation of the teacher.

SUMMARY: The teacher goes over the lesson and highlights the main point worth remembering in the lesson.

EVALUATION: The teacher evaluates the student by asking them the following questions:

i. Define Capital
ii. Explain how capital and entrepreneur become factors of production

APPENDIX XIX.

RESULT FOR PRE-TEST AND POST TEST

S/N	GUIDED DISCOVERY		THINK-PAIR-SHARE		LECTURE METHOD	
	Pretest	**Posttest**	**Pretest**	**Posttest**	**Pretest**	**Posttest**
1	21	56	17	55	21	46
2	13	58	13	50	13	47
3	17	58	16	48	17	48
4	25	56	12	60	25	36
5	18	55	18	55	18	45
6	14	50	14	58	14	49
7	15	65	15	67	15	37
8	23	58	23	58	23	27
9	31	68	31	66	31	47
10	23	59	23	56	23	36
11	24	57	24	57	24	57
12	21	69	21	69	21	59
13	14	68	14	67	14	48
14	31	67	31	67	31	47
15	22	59	22	58	22	49
16	21	74	21	64	21	44
17	34	78	14	77	34	38
18	32	77	32	78	32	37
19	23	67	23	79	23	37
20	24	56	24	76	24	66
21	34	79	24	79	34	79
22	23	67	23	68	23	37
23	22	78	22	78	22	78
24	25	79	23	78	25	39
25	31	78	18	70	31	58
26	12	70	12	70	12	50
27	34	71	34	72	34	41
28	23	65	23	68	23	55
29	24	67	24	67	24	57
30	22	66	22	66	22	66
31	24	77	21	77	24	57
32	23	78	12	76	23	78
33	34	89	34	89	34	39
34	22	55	22	55	22	25
35	22	67	22	67	22	37
36	24	56	18	57	24	46
37	21	45	21	45	21	15
38	22	56	22	56	21	46

39	14	57	14	57	17	57
40	16	56	16	56	16	46
41	14	67	14	67	14	77
42	16	78	16	78	16	58
43	17	66	17	66	17	16
44	21	67	21	67	21	47
45	34	77	34	77	34	57
46	33	87	33	87	43	47
47	31	89	31	89	11	39
48	22	66	22	66	12	46
49	12	45	12	45	12	35
50	13	56	23	67	13	36
51	14	67	14	69	14	47
52	23	45	13	45	23	35
53	12	45	12	45	12	45
54	10	45	10	45	10	25
55	18	56	18	56	18	56
56	12	46	12	46	12	46
57	16	34	16	74	26	44
58	08	35	34	75	18	55
59	12	56	12	56	12	56
60	21	56	13	35	21	46