

**EFFECTS OF PEER TEACHING AND DISCOVERY METHODS ON THE  
ACADEMIC PERFORMANCE OF ECONOMICS STUDENTS IN SENIOR  
SECONDARY SCHOOLS IN BENUE STATE, NIGERIA**

**BY**

**Emmanuel Patrick AGENE**

**DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND CURRICULUM,  
FACULTY OF EDUCATION,  
AHMADU BELLO UNIVERSITY,  
ZARIA, KADUNA STATE, NIGERIA**

**MARCH, 2021**

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**BY**

**Emmanuel Patrick AGENE  
B.A. (Ed) Economics, A.B.U., M.Ed.Curriculum, B.S.U.  
P15EDFC9006**

**A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE  
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INSTRUCTION)**

**DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND CURRICULUM,  
FACULTY OF EDUCATION,  
AHMADU BELLO UNIVERSITY,  
ZARIA, KADUNA STATE, NIGERIA**

**MARCH, 2021**

## DECLARATION

I declare that the work in this Thesis “**EFFECTS OF PEER-TEACHING AND DISCOVERY METHODS ON THE ACADEMICS PERFORMANCE OF ECONOMICS STUDENTS IN SENIOR SECONDARY SCHOOLS IN BENUE STATE, NIGERIA**” has been carried out by me in the Department of Educational Foundations and Curriculum, Faculty of Education, Ahmadu Bello University, Zaria, Kaduna State. The information derived from the literature has been duly acknowledged in the text and a list of references provided. No part of this thesis was previously presented for another degree or diploma at this or any other Institution.

Emmanuel Patrick AGENE  
Name of Student

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Signature

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Date

## CERTIFICATION

This thesis titled **“EFFECTS OF PEER-TEACHING AND DISCOVERY METHODS ON THE ACADEMICS PERFORMANCE OF ECONOMICS STUDENTS IN SENIORSECONDARY SCHOOLS IN BENUE STATE, NIGERIA”** by Emmanuel Patrick AGENE meets the regulations governing the award of the degree of Doctor of Philosophy in Education (Curriculum and Instruction) of Ahmadu Bello University, Zaria and is approved for its contribution to knowledge and literary presentation.

Prof. R. B. Bako -----  
Chairperson, Supervisory Committee (Signature) Date

Dr. A. A. Dada -----  
Member, Supervisory Committee (Signature) Date

Prof. H. O. Yusuf -----  
Member, Supervisory Committee (Signature) Date

Dr. A. A. DADA-----  
Head, Department of Educ. Foundations and Curr. (Signature) Date

Prof. Sani A. Abdullahi-----  
Dean, School of Post-graduate Studies (Signature) Date

## **DEDICATION**

This study is dedicated to my lovely wife, Ekum Ladi Gabriel Agene for her understanding, love, supports and patience in my turbulent days.

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## **ABBREVIATIONS**

<b>FGN</b>	Federal Government of Nigeria
<b>FRN</b>	Federal Republic of Nigeria
<b>NCE</b>	Nigeria Certificate in Education
<b>NECO</b>	National Examinations Council
<b>GSS</b>	Government Secondary School
<b>SSS</b>	Senior Secondary School
<b>WAEC</b>	West African Examinations Council
<b>WASSC</b>	West African Senior Secondary Certificate
<b>EPT</b>	Economics Performance Test
<b>JAMB</b>	Joint Admission Matriculation Board
<b>NABTEB</b>	National Board for Technical Education Board
<b>SES</b>	Statement Economic Standard
<b>CAMA</b>	Companies and Allied Matters Act
<b>ANCOVA</b>	Analysis of Covariance
<b>ANOVA</b>	Analysis of Variance
<b>IMF</b>	International Monetary Fund
<b>SAP</b>	Structural Adjustment Programme
<b>PPP</b>	Power Point Programme
<b>CAI</b>	Computer Assisted Instruction
<b>RD</b>	Research Design

<b>CG</b>	Conventional Group
<b>EG1</b>	Experimental Group 1
<b>EG 2</b>	Experimental Groups 2
<b>X1</b>	Treatment using Peer-teaching
<b>X2</b>	Treatment using Guided Discovery
<b>Y</b>	No treatment
<b>PT1</b>	Pre-test
<b>PT2</b>	Post-test

## OPERATIONAL DEFINITION OF TERMS

The following terms were used at the course of the study:

**Economics:** The study of how man allocates his or her limited resources to satisfy his or her unlimited wants.

**Teaching Method:** This refers to the ability of the teacher to present, discuss and explain concepts, ideas and theories to the learners.

**Peer-Teaching:** This is a method of teaching in which an intelligent student assumes the position of the classroom teacher and teach his/her fellow classmates.

**Discovery Method:** This is a method of teaching where learners draw on his or her own past experience and existing knowledge to discover facts and relationships and new truth to be learnt.

**Performance:** This refers to the assessment of the efficiency of learners in their classroom activities and their behavior after the unit of an instruction.

**Production:** This refers to the changing of raw material into finished goods for the satisfaction of human wants.

## ABSTRACT

The study examined Effects of Peer-Teaching and Discovery Methods on Economics Students' Academic Performances in Senior Secondary Schools in Benue State, Nigeria. The study was conducted with six objectives viz to: determine the effect of using peer-teaching on the performance of Economics students in senior secondary schools in Benue State, Nigeria; determine the effect of using discovery method of teaching on the performance of Economics students and in senior secondary schools in Benue State, Nigeria; determine the difference in the performance of students taught concept of division of labour using peer-teaching and those taught concept of division of labour using conventional method of teaching in senior secondary schools in Benue State, Nigeria; determine the difference in the performance of students taught concepts of production using discovery method and those taught concepts of production using conventional method of teaching in senior secondary schools in Benue State, Nigeria among others. The six guided objectives were transformed into research questions and hypotheses. The study adopted quasi-experimental design using a total of five thousand, four hundred and eighty-five (5,485) Economics students as the population of the study, while two hundred and fourteen (214) senior secondary school, students II were used as sample size. The sampling technique used was purposive sampling. The validated instrument was pilot tested and a reliability index of 0.87 was obtained. Data for the study were collected through the pre-test and post-test, using a teacher made test. The data collected were analyzed using descriptive statistics of mean and standard deviation and inferential statistics of independent t-test. The research questions were analyzed using means and standard deviation. Hypotheses 1 to 5 were tested using t-test statistics, while hypothesis 6 was tested using analysis of variance (ANOVA) at 0.05 level of significance. Findings of the study revealed that: students taught Economics using discovery method of teaching performed significantly better than those taught using conventional method of teaching in senior secondary schools in Benue State, Nigeria; significant difference does exists between the academic performances of students taught production using discovery method of teaching and those taught using conventional method of teaching in senior secondary schools in Benue State among other things. It was concluded that discovery method of teaching and peer-teaching method of teaching as learner-centered have positive effect in teaching Economics. Based on the findings of the study, the researcher recommended that: Economics teachers should make use of discovery method of teaching since it was found suitable for teaching-learning and capable of yielding positive students' academic performance than using conventional method of teaching in senior secondary schools in Benue State, Nigeria; Economics teachers should use peer-teaching method to teach concepts of production since it improves Economics students' academic performance than using conventional method to teach in senior secondary schools in Benue State, Nigeria; peer-teaching method should be used by Economics teachers to teach the concepts of division of labour, since it has been found to enhance Economics students' academic performance than using conventional method to teach in senior secondary schools in Benue State, Nigeria; and discovery method of teaching should be given more consideration by Economics teachers in teaching basic Economics analysis as it was found suitable and effective in teaching Economics than the use of conventional method in senior secondary schools in Benue State, Nigeria among other recommendations.

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background to the Study**

Education is an instrument for economic, political, and scientific development of all nations. This could be the reason why the Federal Republic of Nigeria (FRN, 2009) emphasized in the National Policy on Education the proper use of teaching methods in all stages of education, from primary to tertiary education. Secondary education is provided to children aged between 12 - 17 years to prepare them for entry into higher institutions of learning. The focus is on cognitive development by introducing them to scientific concepts and to specially prepare them to think for themselves, respect others and respect the dignity of labour.

Education also provides knowledge, skills, effects changes in attitudes and character, and also serves as conduit through which changes and development in societies are brought about. These come as a result of using appropriate methods of teaching to teach. Teachers, especially Economics teachers, should be knowledgeable, creative, competent and dedicated. They are expected to be the prime movers of change, as they are the agents of change. Teachers whose students meet these criteria exhibit good use of a range of pedagogies appropriate for the content of instruction; habitual reflection on their teaching and students responses; changing the learning environment accordingly; develop a strong sense of ethics, professionalism and commitment to teaching learning process; always willing to improve the pedagogy earlier used; make teaching learner-centered rather than teacher-centered and knowledge of the relevant subjects matter.

Teaching is the major way of imparting values, skills, norms and knowledge to learners especially students , therefore , teachers should teach to the needs and aspirations of the students, using suitable methods of teaching that are available. The students fail because the teacher fails to teach appropriately to their needs and understanding goes a British cliché on accountability in education. Teaching and education are two sides of the same coin. The success or failure of the education system rests squarely on the shoulders of teachers who should wake to more dedicated performance of their duties through continued improvement of their competences. Indeed, students' failure show poor teaching methods used by some teachers, while the standard and quality of education reflects the stand and quality of the teaching workforce.

According to West African Examinations Council (WAEC) Examiners Report (2016), for the past six years the failure rate of students cut across all subjects, that 75% failure was recorded in skill subjects. This obviously includes Economics and other subjects like Mathematics, Biology, Physics, Chemistry and Technical Drawing while 25% failure was recorded in other subjects like Government, Christian Religious Studies, Islamic Religious Studies and Geography to mention but few. This failure rate is massive and grievous. This may be attributed to the methods of teaching employed by the teachers.

Economics is one of the skill subjects that is been offered in senior secondary schools. Agbo, Ejembi and Oodo (2013) see skill subjects as subjects that require logical and critical reasoning in the teaching and learning process. Both the students and teachers need to have apt attention and understanding towards the subject in order for teaching and learning to be effective. This implies that, skill subjects require students exposure to

enough practical by the teacher to enable them have basic understanding of the subject matter. Economics education is seen as an area of study needed to equip the learners with knowledge, attitudes and skills necessary for efficient re-allocation of scarce resources to satisfy the unlimited wants. This means that Economics does not only study the production, distribution and consumption of goods and services but also the skill and knowledge of Economics education help both the individual and the nation to use minimum input to achieve maximum output. It also makes the individual and the nation to be functional and rational in areas of requirement for occupational competences and economic self-reliance. Every business establishment, be it governments' offices, parastatals, private companies, banks and other financial institutions, the importance of Economics analysis cannot be over-emphasized. This is because students' practical experiences in teaching and learning process should match the role Economics plays in the economy.

Teaching is an act that involves a cluster of activities that a trained teacher may be engaged in during a specific time or period, either in or out of the classroom. Varieties of methods have been employed in teaching from the earliest times. Teaching among other things call for the employment of methods or procedures which are geared towards enabling the learners to learn. Teaching methods that will improve students' academic performance go beyond an employment of ways, approaches, avenues, procedure and certain kinds of activities by the teacher and the learners working interactively with a view to inducing , inspiring and facilitating learning for the purpose of accomplishing set behavioural objectives. The idea behind teaching methods also involve the use of appropriately selected curriculum resources, content and learning experiences,



motivational strategies, an application of learning theories and a demonstration of knowledge of developmental psychology in the teaching – learning process. All these various ideas mean that teaching is a complex way of guiding the learners through a variety of selected experiences to bring worthwhile change in behaviour.

The cluster of activities should be tailored to the needs and aspirations of students via effective methods to produce intended outcome. Economics teachers should be mindful of this fact by creating conducive learning environment by employing other motivating elements such as riddles and jokes, short stories to mention but just few to make students happy and develop interest in order to perform well. Factors that influence the choice of teaching methods include objective of the unit of an instruction; nature of the learners–level of intelligence and rate of assimilation; present knowledge level of the learners; nature of subject-matter for teaching; the number of students present in the classroom; availability of educational resources materials and the duration or period of the teaching assignment.

It should be noted however, that the teaching and learning methods, strategies and learning opportunities are also important in achieving the goals and objective of teaching Economics. Therefore, Agbo, Ejembi and Oodo (2013) encouraged the social science teachers, especially the Economics teachers, to utilize different teaching methods and techniques like peer-teaching, discovery, discussion, demonstration and fieldtrip among other methods. They further stressed that practical experience will develop analytical skills and dispositions among students, willingness and skills for solving economic problems. Despite the recommendations of innovative methods like peer-teaching, discovery, discussion, demonstration among other methods for Economics teaching by

Agbo, Ejembi and Oodo (2013) it was still reported in a study conducted by Igbala and Obe (2015) that the lecture method dominates other methods in the teaching of Economics at the senior secondary school level students were made passive learners. It was also revealed by Ohepo, Adaji and Okeme (2016) that most of the Nigerian Economics teachers seem not to carry out instruction using participatory methods such as peer-teaching, discovery, demonstration, discussion and fieldtrip because they consume time. It may be that Economics teachers do not use participatory methods either because they lack knowledge of such method or because they are not fully aware of the efficacy of Economics in solving economic problems in the society.

It is in line with the above notion that a feasibility study was carried out by the researcher to see whether peer-teaching and discovery methods are being used by Economics teachers in senior secondary schools in Benue State, Nigeria, and they were found not used by Economics teachers in the study area which appears to be one of the reasons for low students' academic performance in Economics.

Peer-teaching is one of the learners centered methods of teaching whereby a student takes the position of a classroom teacher and teach his or her own classmates on a specific topic under the keen supervision of the classroom teacher. According to Abutu (2014) peer-teaching occurs when students, by design, teach other students under the leadership of a teacher. This means that, it is an instrumental strategy in which an intelligent student takes on an instructional role in place of their teacher. It often requires some form of credit for the person acting as the teacher. According to Udeh (2012) peer teaching is one of the most visible approaches to learning which has to do with the cognitive psychology, and is applied within educational framework in which a more

knowledgeable student assumes the position of the classroom teacher to teach his or her own classmates. This implies that students that are academically sound are used to teach their classmates with the aim of achieving the stated behavioural objectives.

On the other hand, discovery method of teaching is also one of the learners centered approaches. There are two types of discovery method: guided discovery - support from teacher and unguided discovery – no support from teacher. The emphasis in this study is on guided discovery – support from teacher. Discovery method of learning is characterized by three stages. These are labeled as inactive, iconic and symbolic where he deals with mental images. At the inactive stage, the child manipulates things directly. He then progresses to the second stage (iconic), where he deals with mental images and lastly to the symbolic stage which is characterized by manipulation of symbols. Discovery method is a process whereby a learner or group of learners discovered or identified a puzzling activity that leads to exploration of ways of solving the problem with a support from the teacher. Other characteristics of discovery method are: there is learner participation and learner to learner interaction, learner's decisions are recognized concerning activities of the course, students are rewarded by being motivated and they have better retention of knowledge since they discover most of the facts on their own and require a lot of teaching materials to illustrate concepts and ideas.

In an attempt to address the lingering issues highlighted above and anticipated to have marred the performance of Economics students in the study area, the present study was however being conceived. It is therefore, expected that the teaching and learning of Economics should be with the most appropriate teaching methods. Appropriate methods of teaching will increase students' participation, interest, creativity and enhance their

performance in Economics. Therefore, the study seeks to investigate effect of peer teaching and discovery methods on the academic performance of Economics students with the primary purpose of equipping the students and teachers ways to improve on their performance in Economics in senior secondary schools in Benue State, Nigeria.

## **1.2 Statement of the Problem**

The outcry of some parents, guidance, teachers and students over the poor academic of Economics students in both their internal and external examinations in Benue State and beyond, calls for other stakeholders in education to map out measures to curb this ugly menace in our schools. According to West African Examinations Council (WAEC) Examiners Report (2016) for the past six years, the failure rate of students cut across all subjects, that 75% failure was recorded in skill subjects. This obviously includes Economics and other subjects like Mathematics, Biology, Physics, Chemistry and Technical Drawing while 25% failure was recorded in other subjects like Government, Christian Religious Studies, Islamic Religious Studies and Geography. The persistent and massive failure of students in their West African Examinations Council (WAEC) and National Examinations Council (NECO) examinations in Economics over the years has become a major concern for parents, teachers and other stakeholders in education in Benue State. Students' persistent poor performance in Economics has been partly ascribed to inadequate teachings, teacher-centered method of teaching and poor usage of instructional materials. The poor performance of secondary school students in Economics may be as a result of the persistent use of the traditional method of instruction as one of the major shortcoming affecting the learning and higher achievement in Economics.

Economics as a subject is inclusive in the mass failure in O'level examination especially in Benue State. The poor performance of students especially Economics students is an issue of concern to parents, teachers and stakeholders in education within the State. Students' persistent poor performance has been partly ascribed to methodologies used by some of the Economics teachers to teach the various concepts of the subject (Abutu, 2014). This means that, inadequate teaching, influence of peer group on the part of students, use of lecture method of instruction employed by some of the Economics teachers are the major shortcoming affecting the learning and higher achievement in Economics.

Students are poorly equipped without the necessary skills, knowledge and attributes with which examinations require. These are some of the evidences of the present weak and poor performance of Economics students in Benue State. Also, according to Egwu (2014), Economics students perform poorly in their external examinations because majority of the Economics teachers in senior secondary schools are still ineffective in the use of participatory approaches to instruction like peer teaching, discovery, discussion, dramatization, field-trip, debate and demonstration to implement Economics curriculum at senior secondary school level. Peer-teaching and discovery are learners' centered methods of teaching which if used effectively will enhance students participation better than the conventional and other methods of teaching Economics in senior secondary schools. Consequent to this, the researcher intends to examine the effect of peer-teaching and discovery methods on the academic performance of Economics students in senior secondary schools in Benue State, Nigeria.

### **1.3 Objectives of the Study**

The main objective of this study is to find out the effect of peer teaching and guided discovery methods of teaching Economics at senior secondary schools in Benue State. This study therefore, set out to achieve the following objectives to:

1. Determine the effect of using peer teaching on the academic performance of Economics students in senior secondary schools in Benue State, Nigeria;
2. Ascertain the effect of using discovery method on the academic performance of Economics students in senior secondary schools in Benue State, Nigeria;
3. Determine the difference in academic performance of students taught concept of division of labour using peer teaching and those taught concept of division of labour using conventional method of teaching in senior secondary schools in Benue State, Nigeria;
4. Determine the academic performance of students taught the concepts of production using discovery method of teaching and those taught using conventional method of teaching in rural and urban senior secondary schools in Benue State, Nigeria;
5. Ascertain the difference in academic performance of students taught the concepts of budget using discovery method of teaching and those taught using conventional method in senior secondary schools in Benue State, Nigeria; and
6. Determine the difference in the academic performance of students taught Economics using peer-teaching method, discovery method of teaching and those taught using conventional method in senior secondary schools in Benue State, Nigeria.

#### **1.4 Research Questions**

The following questions were answered in the course of this study:

1. What is the effect of peer-teaching on the academic performance of students taught Economics in senior secondary schools in Benue State, Nigeria?
2. What is the effect of discovery method on the academic performance of students taught Economics in senior secondary schools in Benue State, Nigeria?
3. What is the difference in the academic performance of students taught concept of division of labour using peer teaching and those taught using conventional method of teaching in senior secondary schools in Benue State, Nigeria?
4. What is the difference in the academic performance of students taught concepts of production using discovery method of teaching and those taught using conventional method in rural and urban senior secondary schools in Benue State, Nigeria?
5. What is the difference in the academic performance of students taught concepts of budget using discovery method of teaching and those taught concept of budget using conventional method of teaching in senior secondary schools in Benue State, Nigeria?
6. What is the difference in the academic performance of students taught Economics using peer-teaching, discovery method of teaching and those taught Economics using conventional method of teaching in senior secondary schools in Benue State, Nigeria?

### **1.5 Research Hypotheses**

The following null hypotheses were tested in this study at 0.05 levels of significance to ascertain its level of acceptance or otherwise:

**H<sub>01</sub>:** There is no significant difference in the pre-test and post-test performance of Economics students using peer-teaching in senior secondary schools in Benue State, Nigeria;

**H<sub>02</sub>:** There is no significant difference between the pre-test and post-test performance of students taught Economics using discovery method of teaching in senior secondary schools in Benue State, Nigeria;

**H<sub>03</sub>:** There is no significant difference between the academic performance of students taught concept of division of labour using peer-teaching and those taught concepts of division of labour using conventional methods in senior secondary schools in Benue State, Nigeria;

**H<sub>04</sub>:** There is no significant difference between the academic performance of students taught concepts of production using discovery method and those taught using conventional method in rural and urban senior secondary schools in Benue State, Nigeria;

**H<sub>05</sub>:** There is no significant difference between the academic performance of students taught concepts of budget using discovery method of teaching and those taught concepts of budget using conventional method in senior secondary schools in Benue State, Nigeria;

**H<sub>06</sub>:** There is no significant difference in the post-test performance of students taught Economics using peer-teaching, discovery method of teaching and those taught Economics using conventional method of teaching in senior secondary schools in Benue State, Nigeria.



## **1.6 Basic Assumptions**

The present study was based on the following assumptions which include:

1. Most Economics teachers in the secondary school do not make use of peer teaching and discovery teaching methods in secondary school in Benue State;
2. Most teachers are employed to teach Economics without considering their area of specialization, educational qualifications and training;
3. Most teachers do not use appropriate teaching methods to teach Economics concepts; and
4. Learning by doing could enhance and motivate students to improve on their academic performance in Economics.

## **1.7 Significance of the Study**

The present study is being conceived with a view to ascertaining the contributions of Economics teachers in their students' academic performance. It is expected therefore, that the findings of this study would in no small way contribute to improving the Economics students' performance in Benue State and beyond. This study would be beneficial to the following stakeholders through the contributions it would offer them. They include teachers, head-teachers, principals, school administrators, students, parents, curriculum planners, policy makers, governments and examinations bodies such as West African Examinations Council (WAEC), Joint Admission and Matriculation Board (JAMB), National Examinations Council (NECO) and National Board for Technical Education (NABTEB).

Teachers, especially teachers of Economics will benefit immensely from the outcome of this study because it could be used to inform them whether peer-teaching and discovery methods are appropriate to the teaching and learning of Economics which will improve the academic performance of Economics students in Benue State. It will also assist them in grooming themselves and to be acquainted with the knowledge and skills relating to innovative teaching methods.

The head teachers will benefit from the findings of this study by guiding and showing the need to encourage their classroom teachers to utilize students centered method of teaching such as peer teaching, discovery, demonstration, project and other appropriate methods that can be used to improve the academic performance in our primary schools.

School principals will find the outcome of this study useful in the sense that the knowledge and the application procedures for peer-teaching and discovery methods of teaching will enhance the general performance of the students in the schools by encouraging other subject teachers to make use of peer-teaching and discovery methods in their subject areas.

Students, who are usually the beneficiaries of any curriculum change and development would benefit immensely from this study because the study would provide opportunity for them (students) to make their own inputs towards making education relevant to their interests, needs and aspirations. It is also hoped that this study would provide teachers, curriculum specialists and also educationists with the necessary information on how best to interpret the curriculum and appraise what is needed to be

considered during its developmental stages. Teachers will also add up to their wealth of experiences on the job which is most relevant in the course of interpreting its curriculum. To curriculum specialists and educationists, they would be equipped with the necessary information (selection of appropriate teaching methodology, educational resources and conducive learning environment for curriculum implementation and evaluation).

Policy makers would be well equipped with reliable and factual information which would serve as an input for effective law making on issues relating to education, allocation of funds, to ensure that all stakeholders in education are encourage to effectively implement Economics curriculum, timely release of funds and the legal framework guiding its activities. It would provide an understanding of the extent of government contributions in providing support and necessary environment to encourage the educational sector with useful information for educational planners and implementers in terms of Economics curriculum for meaningful educational achievement.

The Federal and State Ministries of Education officials would benefit from the findings of this study by having the knowledge of the various teaching methods in the teaching and learning of Economics in senior secondary schools and it would also serve as an avenue for government to encourage teachers, school principals and head teachers by making fund available for them to attend workshops, seminars and conferences in order to update their knowledge in the teaching and learning process.

Examination bodies such as West African Examinations Council (WAEC), Joint Admission Matriculation Board (JAMB), National Board for Technical Education (NABTEB) and National Examinations Council (NECO) would also benefit from this

study by enhancing the standard and pattern of their examinations thereby making students to improve in their results unlike the present situation characterized by failures and pains. Also, textbooks writers would benefit from the findings of this study by providing for learners materials that are relevant and in sequential order so that the learners may have the benefit of acquiring knowledge with ease. Specifically, authors should ask themselves how textual materials can be designed so as to increase the probability of learners' involvement in the instructional process and above all, to make this involvement more predictable and more efficient.

In addition, Government would also benefit from the findings of this study, through successful implementation of strategic policies in educational institutions thereby encouraging more students in taking Economics study as a career and by so doing, contribute to the overall development of the nation's economy. Finally, the result of the study would serve as a guide and source of information for students and future researchers to be acquainted with the various methods of teaching and the use of appropriate teaching method in the teaching and learning of Economics in senior secondary schools in Benue State, Nigeria.

## **1.8 Scope of the Study**

The main purpose of this study is to analyze the effect of peer-teaching and discovery methods of teaching on the academic performance of Economics students in senior secondary schools in Benue State, Nigeria. The study covered the three (3) senatorial zones namely; A, B and C with sixty-four (64) senior secondary schools.

The respondents for the study were Economics students in senior secondary II (SS II) from four (4) senior secondary schools due to the experimental nature of the study and the choice of SS II students was informed by the fact that they were not preparing for any terminal or external examinations. The study is limited to investigating the performance of students taught Economics using peer-teaching, discovery method and those taught using conventional method of teaching. The study will focus on but not limited to basic concepts of Economics like population, budget, production; theory of cost, comparative cost advantage, demand and supply. Other variables of interest in this study include concept of peer-teaching, discovery method and academic performance.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

This chapter covered conceptual /theoretical framework, concepts of Economics, teaching methods, peer teaching, discovery, performance, Economics education curriculum in Nigeria, instructional methods of teaching Economics teaching and learning of Economics in senior secondary schools, the role of teacher; students and learning environment in the teaching and learning of Economics, academic performance in Economics, factors affecting students' performance in Economics, students' attitudes towards Economics, teachers' qualification, teachers' attitude towards Economics, learning materials for teaching-learning of Economics, empirical studies and summary.

#### **2.2 Conceptual Framework**

The conceptual framework covered concepts such as: peer teaching, peer teaching method, features of peer teaching method, advantages and disadvantages of peer teaching method, procedure for using peer teaching method, discovery method, overview of discovery method, characteristics of discovery method, merits and demerits of discovery method, procedure for using discovery method to teach, performance, academic performance in Economics and Economics.

##### **2.2.1 Concept of Peer Teaching**

Peer teaching occurs when students, by design, teach his or her classmates. According to Yusuf (2012), this is a method of teaching in which some students, the intelligent or good ones, teach their fellow students. In this situation students who will do

the teaching are usually given specific topics to prepare and teach. They are thus placed in the position of teachers and hence they research to get enough information based on specific objectives. When peer teaching takes place, the classroom teacher may be present to hear the teaching exercise. According to Obekpa (2013) peer teaching is a method whereby students are selected by their teacher based on their competencies and abilities to teach their classmates some concepts while the teacher guides and manages the control of the classroom. There are specific rules in place to prescribe what the ideal peer teaching might be. The concept of peer teaching encompasses a broad continuum, and can include any integration of face to face and online instructional content delivered by an intelligent students to his or her own fellow classmates ( Amayi, 2010). According to Amayi, peer teaching; learning models comprise of the following elements, mixed in varied proportions according to the contents selected. These models are: learning through information, learning through interaction, learning through collaboration and learning through classroom experiences.

**Learning through information:** This is the first coherent step towards starting a learning programme or activities. Web based material can now be handed to the student-teacher, which can render the learning programme easy to deliver and faster to implement. Making the information accessible all the time will give learners the liberty of scrolling through the content at their own convenience, which, in turn, will enhance understanding and enthusiasm (Amayi, 2010).

**Learning through interaction:** The learner-instructor, learner-content, learner-learner and learner infrastructure interactions become all the more important in a blended learning environment. Web can assist all the above mentioned forms of interaction,

which, together, help retain the knowledge that is acquired through information (Amayi, 2010).

**Learning through collaboration:** Collaborative learning includes peer to peer discussions, conferences, chat, team room and instant messaging. Technology has enhanced the concept of collaboration manifold, where learners, even though geographically remote, can communicate in real time. The collaborative environment also heightens the chances of collaboration between the learners and subject matter (Amayi, 2010).

**Learning through classroom interactions:** Conventional, tested and, by far, one of the most effective approaches to learning, classrooms are the best places to personally connect to peers and instructors. No technology can replace the advantages of this approach, which is exactly why no e-learning or peer teaching method will skip this element for any reason. But, as one would like to believe, peer teaching has never attempted to replace classroom based learning. On the contrary, technology based learning takes care of the basic, mechanical and mundane aspects of learning to allow classroom based training center around discussion on already learnt subject matter, behavioural and psychological modifications (Amayi, 2010).

### **2.2.2 Peer Teaching Method**

Peer teaching is a method that can enhance learning by enabling learners to take responsibility for reviewing, organizing and consolidating existing knowledge and material; understanding its basic structure; filling in the gap; finding additional meanings; and reformulating knowledge into new conceptual frameworks. According to Yusuf



(2012) this is a method of teaching in which some students, the intelligent or good ones, teach their fellow students. In this situation students who will do the teaching are usually given specific topics to prepare and teach. They are thus, placed in the position of teachers and hence they research to get enough information based on specific objectives. When peer teaching takes place, the classroom teacher may be present to hear the teaching exercise (Amos, 2008). According to Obekpa (2013) peer teaching is a method whereby students are selected by their teacher based on their competencies and abilities to teach their classmates some concept while the teacher guides and manages the control of the classroom. According to Adesi (2014) this is a method of teaching in which some students, the gifted ones, take the position of a classroom teacher and teach their classmates. In this context, students who will do the teaching are usually given some topics to prepare and teach. They assume the position of teachers and hence they research to get enough ideas based on specific objectives. During peer teaching exercise, the classroom teacher may be present in the classroom to act as a facilitator. According to Arobe (2014) peer teaching is a method whereby students are selected by their teacher based on their mental abilities and intelligent quotient to teach their classmates some concepts while the teacher guides and control the classroom activities. There are specific conditions that will prevail in an ideal peer-teaching exercise. Peer-teaching entails a broad continuum, and can include any form of physical contact in or out of the classroom and online instructional content delivered by an intelligent student to his or her classmates (Ohonyeta, 2012). According to Ohonyeta, peer-teaching; learning experiences comprise of components such as: mixed in varied proportions according to the contents involved. These experiences are: learning through association, learning

through interaction, learning through collaboration and learning through classroom activities.

### **2.2.3 Features of Peer Teaching Method**

According to Obekpa (2013) the following are some of the features of peer method of teaching:

- i. Intelligent students are often used;
- ii. Students are placed in the position of teachers;
- iii. Topics to be taught are identified by teachers; and
- iv. Student research for information related to topic to be taught.

However, for peer teaching to be effective and result-oriented, the above enumerated features need to be put in place.

### **2.2.4 Advantages of Peer Teaching Method**

According to Obekpa (2013) the following are some of the advantages of peer teaching method:

- i. Learners are motivated teaching their classmate;
- ii. It builds up learners self-confidence and ability;
- iii. It makes learners to search for information on their own;
- iv. It arouse learners interests; and
- v. It makes learners to be active.

The above advantages if put in place will enhance the entire process of peer teaching exercise among students.

### **2.2.5 Disadvantages of Peer Teaching Method**

According to Obekpa (2013) the following are some of the disadvantages of peer teaching method:

- i. It is not suitable with shy learners or those who cannot express themselves freely or easily;
- ii. Intelligent students usually dominate the classroom activities;
- iii. Except the teacher is very good in class control, it may turn out to be fruitless exercise; and
- iv. It may lead to a condition where the below average learners will develop inferiority complex.

Based on the above enumerated disadvantages of peer teaching method by Obekpa (2013) it is therefore, important that trained teachers should ensure that they are guided against the demerits of peer-teaching, so that the aims of teaching and learning process is achieved.

### **2.2.6 Procedure for using Peer Teaching Method to Teach**

Having students work with each other is an effective methodology because it encourages students to be active learners and to talk through lesson concepts in their own words. There are many variations on how peer-teaching can be used to enhance teaching and learning of the concepts of production and division of labour. These among others are think-pair-share, peer instruction using clickers and reciprocal peer tutoring.

**Think-pair-share:** the teacher will pose a question (particularly on the concepts of production and division of labour), give students some time to think about it, perhaps even jot down some notes, after which the teacher will have them (students) partner up for a quick discussion about what they think and why. After giving ample time for discussion, ask partners to share their insights with the entire class (Obiyabo, 2013).

**Peer Instruction using Clickers:** students will be assigned a reading (on the concepts of production and division of labour) prior to class and then quizzed on one or two of the more difficult or complex items using clickers to submit their answers. Students then form groups, discuss the quiz question, and re-submit a group answer. The facilitator can then instantaneously see where clarification is needed based on what the groups struggled with, or when they overwhelmingly chose an incorrect answer (Obiyabo, 2013).

**Reciprocal Peer-Tutoring:** students will be given time to pair up in an in-class tutor/tutee relationship- taking turns between being the tutor and the tutee. They will benefit in two ways: (i) from explaining their own personal understanding of the concept to another and (ii) from hearing the other explain, from their understanding or viewpoint, the same concept. In this model, students spend time summarizing information, assessing the work or ideas of a peer, and explaining rationales- all meaningful activities that promote critical thinking and long-term retention of information (Obiyabo, 2013).

Eduwama (2012) identified the following as the procedure on how to use peer teaching method in the classroom:

- i. Identify the topics that supposed to be taught;
- ii. Identify the intelligent students that supposed to teach;

- iii. Produce an outline for the intelligent students that supposed to teach;
- iv. Students that supposed to teach should understand what is expected of them and when (that is let there be time for every activity and let them have a clear picture of what they are to do); and
- v. The students should know the objectives they are to achieve.

### **2.3 Concept of Discovery**

Discovery method of teaching and learning allows the teacher to be a facilitator of the learner who should be directed to find out what confronts him or her in the immediate environment so that he or she can be helped (Garba, 2005). According to Obochi (2015), discovery learning is a kind of teaching that is based on the students finding things out for themselves, looking into problems, and asking questions. This means that discovery method of teaching is all about students coming to their own conclusions and asking about things that they want to know. According to Ameh (2011), discovery method of teaching is a largely unstructured, situational method or philosophy of teaching whereby students are permitted to find solutions to problems on their own or at their own pace, often jointly in group activities, either independent or not. This implies that discovery method of teaching is designed to engage students in inquiry through which they can be guided by the teacher or not. Discovery method of teaching is an approach to instruction through which students interact with their environment by exploring and manipulating objects, wrestling with questions and controversies, or performing an activity (Musa, 2013). This means that discovery method of teaching allows students to engage on a given activity on their own in order to find out solution by themselves.

According to Idoko (2014), discovery method of teaching is an appropriate method of teaching skill subjects especially Economics. This is because discovery method generates obvious enthusiasm and excitement in most children that is not obtained through mere formal presentations (Livingstone, 2010). The discovery that is useful, however, is not random discovery but the discovery within an organized and structured framework that the teacher already has in mind (Itodo, 2011). This means that an organized discovery method of teaching will improve the academic performance of Economics students.

Jerome Bruner in Adoyi (2012) said to be the originator of discovery learning in the 1960s; although his ideas were similar to those of John Dewey. Bruner cited in Okeme (2015) argues that discovery learning encourages active engagement, promotes motivation, autonomy, responsibility and independence, encourages the development of creativity and problem-solving skills and provides a tailored learning experience. He further stated that “practice in discovering for oneself teaches one to acquire information in a way that makes that information more readily viable in problem solving”.

Discovery learning is an inquiry-based, constructivist learning theory that takes place in problem solving situations where the learner draws on his own past experience and existing knowledge to discover facts and relationships and new truths to be learned. Students interact with the world by exploring and manipulating objects, wrestling with questions and controversies, or performing experiments (Brantlinger in Owoicho, 2011). According to Alfieri, Aldrich, Brooks and Tenenbaum in Orokpo (2015) “discovery learning is a powerful instructional approach that guides and motivate learners to explore information and concepts in order to construct new ideas, identify new models of

thinking and behavior. It is believed that well-designed discovery learning classroom sessions are highly experimental and interactive by using stories, games, simulations to grab attention, build interest and lead a journey of discovery toward new thinking, actions and behaviors. Discovery method of teaching is supported by the works of learning theorists and psychologists like Jean Piaget and Seymour (Mayer, in Arobe 2014). Dean and Kuhn (2006) affirmed that well-designed discovery learning sessions incorporate three key ideas:

- (i) **Problem solving:** they guide and motivate learners to find solution by pulling together information and generalizing knowledge;
- (ii) **Learner management:** they allow participants, working alone or in small teams, to learn in their own ways and at their own pace; and
- (iii) **Integrating and connecting:** they encourage integration of new knowledge into the learner's existing knowledge base and clearly connect to the real world.

Kim, Bonk and Teng cited in Odoyi (2010) support this key idea by enumerating its benefits to include:

Training time is condensed, programs are fun, fast-paced and energizing, participants absorb course content via active participation, sessions are highly customizable and retention is high. The originator of the method Bruner cited in Audu (2014) further supported these attributes that learners will exhibit by saying student are more likely to remember concepts, if they discover them on their own as opposed to those that are taught directly, and concluded that this is the basis of discover learning. In pure

discovery learning, the learner is required to discover new content through conducting investigations or carrying out procedure while receiving little, if any, assistance.

Koyan in Ochani (2009) and Bankole in Igomu (2015) insist that the major arguments in favour of the discovery method is that, the method is as an important pedagogical techniques for teaching children and it rests on four premises:

- a) It creates arousal for them and therefore, evokes their maximum attention;
- b) The differential approach associated with the discovery method is likely to increase a child's expectancy that he is able to solve problems automatically;
- c) The discovery approach requires extra intellectual effort; the value of a task associated with it is increased. In other words, it is reasonable to assume that activities become valuable to the degree to which effort is expected in their mastery; and
- d) The discovery approach gives the child more latitude and freedom and removes him from the submissive position ordinarily maintained between teacher and child.

Given all the above learning variables a student being taught Economics with the discovery method is expected to demonstrate appreciable understanding about the aims and objectives of the lesson. In addition learners can easily make out meanings from the concepts which the teacher explains and demands them to do. This ultimately helps them to engage in working out solutions to simple Economics analysis problems. The task of



the teacher in this regard is to encourage and stimulate students' readiness and interest to perceive concepts and situations in new ways.

### **2.3.1 Overview of Discovery Method**

Discovery method is a learner centered method where the learner is more active than the teacher. According to Enejo (2014), discovery method enhances students' full participation in the classroom activities while the teacher guides, controls and gives assistance to the learners in order to achieve the expected behavioural objectives. It can be used on individual as well as group learners. According to Yusuf (2012), discovery method is a method of teaching where the classroom teacher provides the learners necessary opportunities to discover new facts, new rules, new methods or techniques of solving problems as well as new values for themselves. According to Odu (2014), discovery method involves an unstructured exploration in the laboratory in which student, through his mental processes such as observing, measuring, classifying and so forth, can draw general conclusions from data which he has gathered. According to Nwodo (2013) modern teaching curricula emphasized learners' involvement in classroom or outside the classroom activities through discovery experiences. However, from instructional point of view, there are two types of discovery methods recognized. They are guided inquiry and unguided inquiry. Guide inquiry involves an instructional mode which can either be inductive or deductive in nature. If general principles are given and the learner is expected to use the principles in order to discover the solution to a particular problem, the guided inquiry is employed through deductive method. But if the solution to an

Economics is given and the learners are expected to discover the general principles on which the solution is based the guided inquiry is adopted through inductive method. But in a situation when neither the general principles of the solution are given; the student is expected to discover both the principle and the solution, the teacher in this instance, is said to employ unguided inquiry. This process is also referred to as ‘pure discovery’. The discovery method is also called the ‘Heuristic method’. This method as the name implies is a method by which the pupils discover things for themselves. The method uses the fact that a pupil’s own experience is the basis of real learning. It is an activity method where pupils are mentally active all the time. According to Umaru (2015), discovery method is defined as “a seeking for truth, information, or knowledge-seeking information by questioning”. Discovery implies involvement that leads to understanding. Furthermore, involvement in learning implies possessing skills and attitudes that permit a knowledge seeker to seek resolutions to questions, issues, and the knowledge seeker also construct new knowledge (Ocheke, 2013). This implies that discovery method gives learners the opportunity to explore knowledge on their own with the guidance of a teacher.

Unfortunately, our traditional educational system has worked in a way that discourages the natural process of discovery. Students become less prone to ask questions as they exposed the curriculum contents. In conventional schools, students learn not to ask too many questions, instead to listen and repeat the expected answers (Umaru, 2015). Some of the discouragements of our natural discovery process may come from a lack of understanding about the deeper nature of discovery –based learning. Effective discovery is more than just asking questions. A complex process is involved when individuals attempt to convert information and data into useful knowledge. Useful application of

discovery learning involves several factors such as: a context for questions, a framework for questions, a focus for questions and different levels of questions (Umaru, 2015). Thus, well-designed discovery learning produces knowledge formation that can be widely applied. Educators should understand that schools need to go beyond data and information accumulation and move toward the generation of useful and applicable knowledge – a process supported by discovery learning. However, through the process of discovery, students construct much of their understanding of the natural and human-designed worlds. Discovery implies a “need or want to know” premise. Discovery is not so much seeking the right answer – because often there is none but rather seeking appropriate resolutions to questions and issues (Tende, 2011). This means that, for educators, discovery implies emphasis on the development of discovery skills and the nurturing of discovery attitudes or habits of mind that will enable students to continue the quest for knowledge throughout life.

### **2.3.2 Characteristics of Discovery Method**

According to Enejo (2014), the following are some of the characteristics of discovery method:

- i. Adequate materials are available;
- ii. The objectives are understood by learners (that is, learners should know what they are supposed to achieve;
- iii. Learners should understand what is expected of them and when (let there be time for every activity and let them have a clear picture of what they are to do); and
- iv. Learners should be interested in the topic.



### **2.3.3 Merits of Discovery Method**

Enejo (2014) identifies the following as the merits of discovery method:

- i. It exposed the learners to a real-life situation of their society and their neighborhood. The method equips the learner with a vital means of acquiring knowledge on his own through active participation, and he develops his mind by using it to solve problems;
- ii. It encourages co-operation and friendship among learners. The method challenges the learner to find out information for himself and makes instruction student- centered while the teacher is but a facilitator of teaching and learning process;
- iii. It can be used in all subjects either individual or in groups;
- iv. It could take the form of management or an investigation;
- v. Learners conduct the activities by themselves while the teacher guides or gives assistance only; and
- vi. It makes learning relatively permanent.

### **2.3.4 Demerits of Discovery Method**

The following are some of the demerits of discovery method as outlined by Enejo (2014):

- i. The teachers are passive while learners are active participants;
- ii. Learners must be interested in the topic, if not learning will not take place;
- iii. Adequate materials must be made available for learners;

- iv. The real need of the individual child may be neglected at the expense of the social group and its activities;
- v. The method wastes time for learners; and
- vi. The brilliant students are not always happy with this method since they have to learn by doing.

### **2.3.5 Procedure for using Discovery Method to Teach**

The following are the procedure on how to use discovery method to teach the concepts of population and budget (Enejo, 2014):

- i. Identify the activity to be carried out and how it should be best discovered;
- ii. Identify , strategize and try the materials to be used in advance by re-planning the process over and over again;
- iii. Produce an outline based on the most suitable procedure identified;
- iv. Arrange and motivate the learners before starting the discovery; and
- v. Monitor understanding by asking questions or calling on individuals to attempt the discovery where possible.

## **2.4 Concept of Performance**

Performance refers to the assessment of the efficiency of pupils for the classroom activities and their behavior after the unit of an instruction and that a formal system is designed to measure and evaluate their outcome through constant observation and the pupils' behavior. Festus cited in Okaiyi (2015) contends that performance appears generally to be the fundamental goal behind every life struggle, but the positive platform has consequential effect of improving the worth of the students and can only be

achieved through acquisition of positive learning. According to Anygyaye (2007) performance assessment is the direct, systematic observation of an actual students' performance and rating of that performance according to the pre-established performance criteria. This means that performance has given layout or criteria in which an outcome of an activity may judge. Students when asked to perform an activity, they are assessed based on the result of their work. Many performance assessments include real life activity that calls for higher order thinking (Anygyaye, 2007).

The performance based approach to education enables students to use their knowledge and apply skills in realistic situations. It differs from the traditional approach to education in that it strives for mastery of knowledge and skill; it also measures these in the context of practical task. Furthermore performance-based education focuses on the process students go throughout the learning process (Ochabe, 2012). In addition, performance-based education stimulates the development of other important dimension of learning namely; the affective, social and meta-cognitive aspect of learning. According to Odela (2010) performance is a word used in situational analysis in terms of good or bad of a given task. Performance is the demonstration of pupils' ability to attain certain level of instructional objectives in and out of classroom experiences (Agbo, 2014). This means that performance shows pupils level of achievement in their classroom activities. Performance is an indicator that shows the level of learners' academic achievement after a given test or examination (Ogwuche, 2016). This implies that when pupils are taught or exposed to a given unit of an instruction, they are expected to be examined or tested to determine the degree of the attainment of the stated behavioural objectives. According to Onyechunmo (2011), performance comprises factors that play vital role in the academic

achievement of the pupils. Performance-based education motivates students to participate in interesting and meaningful tasks. It helps students develop a sense of pride in their work, fostering confidence in the target language (Ohemu, 2009). The assessment thus enables students to discover specific skills and competence by performing or producing something. Through performance-based teaching, teachers can track students, work on an activity and show them the value of their work processes and help monitor them to use their analytical skills to solve Economics issues (Agbama, 2015). The following are some of the advantages of performance assessment on students by (Agbama, 2015):

- i. It promotes independent learning involving planning, revising and summation;
- ii. It encourages divergent thinking;
- iii. It encourages problem solving and critical thinking skills;
- iv. It builds on pupils' prior experience;
- v. It enables self-assessment and reflection;
- vi. It gives opportunities for peer interaction and collaborative learning; and
- vii. It is interesting, challenging, meaningful and authentic.

An extended performance activity may develop into discovery; following definition of discovery adapted from Eric (2010). Discovery is an extended and complex performance task, usually occurring over a period of time. Discovery usually involves extensive students' enquiry cumulating students' performance which is asserted using a variety of assessment tools. Performance based teaching and assessment requires teachers to determine the knowledge the pupil needs to acquire and how it can be applied at the beginning of the planning process (Odagla, 2010). A major difference between implementing performance based approach, assessment and traditional testing is that in a



performance based approach, assessment occurs throughout the teaching/learning process. The teacher unit's plans should illustrate how each of the teaching goals is assessed in the unit. With the curriculum, teachers select the principal bench mark in the various domains and the pre-requisite knowledge and skills required to perform this bench marks. At this stage, the appropriate assessment method needs to be matched to each goal and should measure pupils' performance (Odagla, 2010).

#### **2.4.1 Concept of Academic Performance in Economics**

Academic performance is defined as the measure of what a student has accomplished after exposure to educational programmes. In spite of the importance attached to Economics as the key subject in realizing any nation's economic, scientific and technological aspirations, it has experienced a flood of persistent high failure (Imoko and Agwagah 2006; Aburime, 2004). Economics education in Nigeria is in a deplorable state at all levels of Nigeria educational system. Due to the abstract symbolism, analysis, theories, concepts and language of Economics, its teaching and learning is facing many difficulties (Sesay and Ochepe cited in Ogbu, 2015). It is a subject in which students have difficulty in comprehension and application of concepts (Ogidi, 2013). Consequently, students' performance is usually poor. For many Economics students in secondary schools in Benue State and beyond, Economics is a loathsome subject, such that at the mention of the name, some students curse and hiss (Itodo, 2010). These poor performances have come to stay probably because of a very poor manner they were introduced to it; poor use of materials, non-facilitative teaching method, and so on. In research conducted by Umaha (2013) on effect of discovery and demonstration methods on Economics students, he shows that students exposed to discovery method scored

higher than those students who were taught the same concept using demonstration method. Abah (2011) pointed out that Economics students' performance is high when students are taught using relevant instructional material in teaching the various concepts.

Economics students' performance depends on many factors and stands out to show how well a student is doing. Academic performance according to Larin cited in Emenike (2015) refers to some strategies of expressing a student's scholastic standing. This can be regarded as a source or subject grade, an average for a group of subjects in a program of study for instance, Economics. According to Okere (2010) academic performance is a systematic process of assessing or judging the extent a learner has achieved in a given classroom activity. This implies that academic performance shows the level of a learner's classroom achievement in terms of the classroom activities he or she has been exposed to.

However, the performance of students in Economics at the senior secondary schools has not been encouraging. This explains why research efforts in Nigeria have been focused on identifying factors militating against students' high performance in the subject. Prominent among these factors are poor teacher preparation, shortage of qualified Economics as a subject, limited knowledge of the subject matter, poor methods of teaching as reported by Ifemuyiwa in Edoma (2015). Of all these factors, teaching methods, strategies and tactics stand out as the most common problem facing the effective teaching and learning Economics. This explains why West African Examination Council Chief Examiners report on 2016 May/June WASSCE pointed out specifically that: "majority of the candidates exhibited inability to apply Economics principles correctly; and to work to the required degree of accuracy", and that the candidates lack

fundamental manipulative skills. It added that candidates were weak in analysis of theory of costs, measures of dispersion and other Economics concepts. The report further recommended the use of appropriate methods in teaching Economics (WAEC, 2016). This point to the fact that if teaching and learning of these concepts are done with the use of appropriate methods by teachers and students, the performance of students in the subject may improve both in internal and external examination, since the use of appropriate methods is one of the ways of improving the teaching process (Ubana, 2014).

#### **2.4.2 Factors affecting Students' Performance in Economics**

Despite the prime position Economics occupies in our educational system and effort made by researchers to enhance academic performance; students' Economics performance in general is still low (Owoicho, 2014). Some of the reasons identified for this failure by Owoicho are:

1. Poor school environment: Many schools environment are poorly equipped which affect the teaching and learning process. This affects the students learning which in turn affect their academic performance to the negative. This is a situation where students are crowded in a small classroom space to learn and to write examination. Sometimes, this creates opportunities for students to cheat.
2. Examination malpractice: Examinations are common features of any educational system. Unfortunately, the educational system in Nigeria has been plagued by various forms of indiscipline amongst which examination malpractice ranks as one of the highest. As pointed out by Olayinka in Ango

and Musa (2007) examination malpractice is rated as one of the greatest problems that undermine the foundations of educational practice in Nigeria today. The rate at which examination malpractice is increasing is alarming. This problem makes the society to doubt the tenacity of certificates issued by our educational institutions at all levels. Too much emphasis on paper qualifications, misguided ambition on the part of the candidates among others constitute problems in the conduct of examination which subsequently leads to examination malpractice and poor performance in examinations.

3. Poor library system: Most Nigerian senior secondary schools operate overcrowded libraries without recent materials and reference books for the students use and their teachers. Ojo in Ango and Musa (2007) stated that, it is common to see many Economics students, using one or two reference materials for their Economics assignments. Students need relevant textbooks and other educational materials to achieve the academic laurels anticipated. It is however, on a sad note that students have continued to suffer under severe dearth of these academic materials in their quest to achieve academic excellence (Agodo, 2014). Nigeria has no reading culture, no book culture and therefore no well-rounded, well cultured and well-refined citizenry (Nwbueze, 2011). Most Nigerian students read only when it is absolutely necessary for some definite purpose in hand like preparing for an examination. The absence of reading culture in the utter neglect of National Library services nation-wide led to the set-up of a four-man panel to look into the state of the library by the then Minister of Education, professor Nwabueze in 1993.

The outcome of the panel led to some stringent measures being taken to revamp the libraries. The poor library system affects students' academic performance to the negative.

4. **Teacher's commitment:** It is generally stated that no education system can rise above the quality of its teacher. There is therefore, need for teachers to be dedicated and committed to the teaching profession for effective service delivery. Teachers as key implementers of educational policies should see their role as paramount to the realization the goals of education. The poor attitude of teachers to teaching is seen in their unpreparedness to pedagogical activities with their learners in the classroom.
5. **Inadequate teaching and learning materials on teaching of Economics:** The teaching of Economics is characterized by many inadequacies. Many Nigerian senior secondary schools teachers of Economics have few materials on the teaching of Economics concepts. For instance, audio-visual aids for the teaching of Economics are either not available, insufficient in quantity or that what is available is inappropriate. It can be said with the exception of few Economics textbooks written in Nigeria, most are poorly written, sketchy and lacking in in-depth for Economics analysis (Emoche, 2014).
6. **Bias and subjectivity:** Economics teachers find it difficult to eliminate bias and subjectivity while teaching the students. They try to influence the decision of the students, to suit their personal interest. For instance, when teachers are teaching topic like consumer behaviour, division of labour, inflation and

production. This leads to the following issues: value judgement, logic, preference and choice.

Value judgement- students cannot distinguish between fact and opinion. Since Economics is concerned mainly with means and ends, people are interested with how best they can compete with unlimited wants in the face of the limited resources. At times, it is difficult to make judgement about moral implication behind individual choice and sacrifices. For instance, laws of demand says the higher the demand, all things being equal; the higher the price. Therefore, it is argued that Economics can be taught without bringing in subjectivity.

Logic- this involves the teaching of Economics in a way that it applies to real life situation of the learners. The teacher has to apply Economics teaching to solve the problems encountered by the learners in a convincing manner.

Preference- teachers do select topics based on personal interest and how best the topics appealed to them. The choice of topics to be taught is therefore being influenced by their subjectivity.

## **2.5 Concept of Economics**

Economics is study of how man allocates his or her limited resources to satisfy his or her unlimited wants. 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. Since economics is concerned with human behaviour.

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 (Egabo, 2013). 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. According to Abah (2014), Adams Smith was regarded as the father of Economist because he was the one that laid the foundation of Economics as a discipline. Abeyo (2010) 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 is the practical science of production and distribution of wealth (Agbo, 2014). 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 Nnama (2009) defined Economics as the science that treats phenomenon from the start

point of price. He was interested in exchange value, that is, anything that has monetary value is the framework of Economics.

Economics is the science of material welfare. He 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 (Nnama, 2009). Marshall in Amodu (2014) a great 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 Agbo (2012) 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. Economics is the scientific study of how people and their institutions go about producing and consuming goods and services and how they face the problem of making choices in a world of scarce resources (Adolf, 2009). This means that Economics is a subject which studies how humans behave in relation to their wants and the available resources in order to satisfy these wants.

## **2.6 Students’ Attitudes towards Economics**

The word attitude is derived from the Latin word “aptus” which means ‘fit and ready for action’. Attitude is indispensable in personality formation and manifestation and it is a core, aspect in the study of human behavior. According to Ugwu (2014),



attitude is just like emotions, it has components which are related to beliefs, feelings, and the tendencies to behave in a particular way. An attitude is a point of view about a situation; it is a way of thinking. It is an inward feeling expressed by outward behaviour. It has implication for the learner, the teacher, the social group with which the individual learner relates. Attitudes are formed as a result of some kind of learning experiences. They may also be learned simply by following the example or opinion of parent, teacher or friend. This is mimicry or imitation, which also has a part to play in the teaching and learning situation. In this respect, the learner draws from his teachers' disposition to form his own attitude, which may likely affect his learning outcomes. According to Bandura in Ihotu (2015) in his observational theory demonstrated that behaviours are acquired by watching another (the model, teacher, parent, mentor and friend) that performs the behaviour. The model displays it and the learner observes and tries to imitate it. This implies that teachers are, invariably, role models whose behaviours are easily copied by students. What teachers like or dislike, appreciate and how they feel about their learning or studies could have a significant effect on their students. Unfortunately, however, many teachers seldom realize that how they teach, how they behave and how they interact with students can be more paramount than what they teach. In a nutshell, teachers' attitudes directly affect students' attitudes. Attitude determines the progress made by a student or a teacher, many of the problems students have especially as regards to their performance are quite attitudinal; students with negative attitude towards Economics perform poorly. Allport cited in Gimba (2011) defined attitude as a mental state of readiness organized through experience exacting a directive or dynamic influence upon individual's response to all objects and situations with which it is related. This implies that attitude is an

expression of how we like or dislike a thing or an object. It represents our evaluations or preferences towards a wide variety of attitudinal objects. Attitude is the state of the mind of an individual towards a particular thing or concept. Attitude is an emotional state of individual towards an object or situation (Ogbeche, 2009). This implies that students attitude trigger their behavior which serve as inputs or stimuli that trigger their actions. Positive or negative attitude to Economics learning is not a local but a universal problem (Jabala, 2014). An attitude is a mental state of readiness organized through experience, exerting a direction or dynamic influence upon the individual response to all subjects and situations with which it is related. It has been observed through students' attitude and performance in class work and examination that a substantial number of students at senior secondary schools have developed negative attitudes toward the learning of Economics. This may be due to fundamental lack of understanding of the importance of Economics concepts on the part of the teachers, poor wording and poor style. Nigeria consists of diverse society that ranges from sophisticated and educated elites to pre-literate groups. This has caused the students to be influenced by the social environment in the way they apply Economics concepts to solve practical economic issues. They receive certain experiences especially the way people talk about Economics concepts locally. They imitate what people do and listen to the words they use and tell them about their activities. This has led to the teaching of Economics in a conventional way in many Nigerian senior secondary schools. As a result of this, many Economics students are afraid of Economics when it comes to practical application of Economics theories. Ugboha (2016) said that many students are easily disturbed by their early experiences in Economics learning and the loss of confidence; bewilderment and repeated failure give

rise to a distaste of the subject which result in negative attitude. The objective of any Economics curriculum is to foster favourable feelings toward Economics as well as imparting cognitive knowledge (Ogwa, 2013). Unfortunately, while Economics teachers have focused on improving the cognitive side of instruction in Economics, that is, the skill and the knowledge that the students are expected to develop, little regard has been given to non-cognitive issues such as students' feelings, attitudes, beliefs, interests, expectations and motivations (Okaleya, 2011).

Blair and Simon cited in Igo (2012) see attitude as a propensity of an individual to respond in a certain way to a stimulus. This means that an attitude is the interest an individual has towards a thing or an object and therefore involves a tendency to behave positively or negatively in a situation that involve the thing or object. According to Sola and Ojo cited in Omeche (2011) define attitude as beliefs and opinions that can predispose individual to behave in certain ways. Attitude can be seen as to comprise of cognitive and affective component, attitudes are thought to influence future behaviours and have implications for such things as learning. Opeyemi (2014) sees attitude as interest, habits, feelings, emotion and thought an individual manifest towards a material thing. Students' attitudes towards Economics go a long way to influence their performance in the subject. Most students' feel that Economics as a subject is meant for female students and therefore, the passion for learning continues to decline. This study sets to find out effect of peer-teaching and discovery methods on Economics students' academic performance in senior secondary schools in Benue State, Nigeria; which students' attitudes toward Economics learning in senior secondary schools is one of the variables under consideration.

### **2.6.1 Teachers' Attitude towards Economics**

The learning of Economics depends on the way it is presented to the learner, the way the learner actively interacts with the learning experiences presented to him and the environment within which the learning takes place. Ojobo (2016) said that with the current increase in knowledge the world over, much demand is placed and emphasis is laid on the teachers; the learner and the environment in the whole process of teaching and learning of Economics. Teachers' character towards the teaching of Economics plays a significant role in shaping the attitude of students towards the learning of Economics (Onche, 2015). Teachers' character towards Economics is a significant predictor of students' achievement as well as their attitude towards Economics. Students' positive attitudes towards Economics could be enhanced by teachers' enthusiasms, resourcefulness and helpful behaviour, teachers' thorough knowledge of the subject matter and their making Economics quite interesting. All these factors could also be applicable to Economics learning since Economics is regarded as the bedrock any meaningful development in any country. It is on this premise that the character of the teacher, his or her disposition to the subject, students classroom environment could make or unmake the attitude of the students towards the learning of Economics. The attitude of the Economics teachers can mould the attitude of the students who want to learn or not. Hence, the Economics teacher should be psychologically prepared to teach the subject given that every other requirement is met.

Many of the professional teachers do not use appropriate teaching aids and methods in the classroom that can stimulate students. Some use uninspiring and sterile methods (Ojobo, 2016). Thus, Economics teaching is usually didactic and most often pitched at an

abstract level. This suggests that little or no consideration is being to the psychology of the learners who may require concrete realities. It has been observed that teachers' teach Economics in a way that merely requires the students to listen, read and regurgitate. This depicts negative character to teaching. Several research findings have confirmed the hypothesis that teachers' characters either towards Economics or towards teaching Economics affect their students' achievement in and attitude towards Economics. Adeleke in Ojobo (2016) found that the effect of teachers' character towards assessment practices on students' achievement and their character towards Economics was positive. In most of Benue State classrooms Economics instruction is hardly related to real life situations even when it is obvious to do so with little or no efforts. According to Ochigbo (2012), claimed that many teachers develop poor character toward the subject they teach because they find themselves in the teaching field not by their choice; so they use only the techniques they know even if such techniques are not relevant to the concept under discussion. Chako in Ochigbo (2012) reported in a study of teacher and student characteristics as correlates of learning outcomes in Economics that teachers' characters towards teaching significantly predict students' attitude as well as achievement in Economics. Adanu (2014) found that teachers' character towards Economics teaching is one of the major contributors towards explaining the variance in students' cognitive achievement. The teachers' character and reactions in the classroom to his or her colleagues and learners are observed by the students he or she is teaching; if he or she is lovely, compassionate, warm, cooperative and well-adjusted the students will definitely emulate; and reproduce his or her personality but if the reverse is the case students will develop negative attitudes, violent reaction to trivial issues and misbehavior which are

already in manifestation among the senior secondary students of Benue State. Teachers are supposed to act as role models to their students to emulate.

### **2.6.2 Teachers' Qualifications**

A teacher is a person that has undergone a specific length of training and acquired some teaching skills that are needed in the teaching profession. According to Dolapo (2013), a teacher is a leader, who always believes in change and has the capacity to prepare future leaders and develop in them the skills that they need to succeed in life. Qualification is seen as the capacity, knowledge and skills that make a person eligible for a duty, office or position (Dolapo, 2013). According to Oyigebe (2011), qualification is defined as the fitness for purpose through fulfillment of necessary conditions such as attainment of certain level of awareness, taking of an oath, completion of required schooling or training; or acquisition of a diploma or a degree. Burgess in Oyigebe (2011) described teacher's qualification as the academic and professional training that a teacher has acquires over the years which equips him or her to be competent in the teaching and learning process within and outside the school system. According to Ochemoyi (2016), opined that teachers' qualification is one of the academic and professional degrees that an individual obtained from a recognized higher institution of learning that qualifies him or her to be a trained and professional teacher. Such qualifications include: professional diploma in Education (P.D.E.), postgraduate diploma in Education (P.G.D.E.), Master in Education (M. Ed), Bachelor of Education (B. Ed) and Nigeria Certificate in Education (N.C.E.) which is the minimum teaching qualification in Nigeria. This means that teacher's qualification refer to certificates, knowledge, skills, attitude and behaviour a person acquires from a college to make him or her fit for the classroom activities.

Teacher's professional qualification is tied to his or her competence in instruction, management of students and use of materials in the classroom. According to Ochemoyi (2016), teachers' qualification has direct and positive influence on the quality of instruction and consequently on students' academic performance. Nigeria educational system requires that all teachers in all educational institutions nationwide should be professionally trained. This is with the view of enhancing teachers' commitment to the teaching profession. Hence, the national policy on education (FRN, 2004), stipulated that the minimum qualification for entry into the teaching profession shall be the Nigeria Certificate in Education (N.C.E.).

According to the Teachers' Registration Council of Nigeria (2008), other acceptable qualifications are degrees in education such as B. Sc. (Ed), M. Ed and Ph. D in education. It also emphasized that those with degrees or diplomas in non-educational field should possess Post-graduate Diploma in Education (P.G.D.E.) or Technical Teachers' Certificate (T.T.C.). It is not enough to accept or describe someone as a teacher merely because a certificate is presented in support of his or her claims. Rather, Teachers' Registration Council of Nigeria (2005), posited that teachers trainee must be well equipped with adequate and appropriate characters, professional and academic knowledge and skills in the art of teaching. However, a reasonable number of unqualified teachers are in the teaching field today contributing to low standard in the nation educational system and also influencing the poor quality of students produce at this educational level.

## **2.7 Theoretical Framework**

A theory is an explanation, idea or opinion based on thought observation and reasoning which have been tested and confirmed as general principle explaining a large number or related facts (Yaman, 2009). Many learning theories were found to be relevant to understanding the concepts of effect of peer teaching and discovery methods on students' performance in Economics in senior secondary schools in Benue State, Nigeria. However, the following theories such as Jean Piaget Learning Theory of Cognitive Development, John Dewey Theory of Constructivism and Gagne Theory of Instruction would be found to be specifically relevant to this study.

### **2.7.1 Jean Piaget Learning Theory of Cognitive Development**

Jean Piaget, a Swiss Psychologist, made some basic assumptions in his theory. Piaget's learning theory is on the study of how children learn at different age range. The reason is that understanding the concept of learning, types of learning and factors affecting learning and their classroom implication will go a long way in giving a clearer meaning on the issues surrounding selection of appropriate methods of teaching Economics. Two of the essential concepts in his assumptions are 'function' and 'structure', (Mukherjee in Obiyabo, 2013). He postulated that functions remain invariant for the individual children, and these are employed in the cognitive behavioural manifestations of theirs. Structures change systematically during the growth period of the child, as new structures are formed almost every day of the child's life which destroy or modify the old existing structures, and this process of building and rebuilding goes on from birth to maturity of the individual child.



On these bases, a child's intelligence may be viewed as the outcome of his growth process. According to Mukherjee in Obiyabo (2013), "for any function to be operational it has to be organized, that is, planned. Two basic aspects of the function invariant are assimilations and accommodation". Assimilation implies anything that is incorporated by the child from his environment. In cognitive terms, it includes the input of information, its analysis and synthesis arising out of mediation process of the organism. An information or experience which is assimilated needs to be matched to see if the synthesized bits of experience have been properly assimilated, and this the organism does by a matching out process in his cognition, which Piaget calls accommodation. When assimilation and accommodation of a particular bit of experience have been properly integrated, adaptation of the organism result becomes real. If the result of adaptation is proved to be satisfactory for the particular information or experience, the organism moves to a stage of equilibrium. An experience for which the organism has reached equilibrium is stored by the child as a memory trace or schema. A structure consists of many such schema or schemata. From the foregoing, it can be seen that Piaget's learning theory has implications for learning Economics, the types of learning which students adopt, factors affecting such learning and the role Economics teachers play to make learning effective.

### **Implications of Piaget Theory for Learning Economics**

When Economics concepts are introduced to the learners by the teacher for instance, demand and supply regardless of their previous experiences, learners are able to classify these concepts, engage in assimilation of the information which the teacher provides. This assimilation of the concepts and information leads to synthesizing and

adoption of the various experiences of the learners which Piaget termed 'function', which results in accommodation. In other words the child's further experiences and interaction with the teacher and various learning aids will ultimately results in understanding and acceptance of these concepts as real and meaningful. This theory is therefore relevant to the present study as it placed emphasis on the abilities of learners to construct knowledge in their own minds through a process of discovery and peer- teaching.

### **2.7.2 John Dewey Theory of Constructivism**

Constructivism is a philosophy of learning founded on the premise that, learners learn by reflecting on their experiences and learners actively construct knowledge, linking new knowledge with previous knowledge. Constructivist learning environments require students to utilize their prior knowledge and experiences to formulate new, related and or adaptive concepts in learning. Under this framework, the role of the teacher becomes that of a facilitator, providing guidance so that learners can construct their own knowledge. Constructivist educators should make sure that the prior learning experiences are appropriate and related to the current learning experiences.

Constructivism theory is about how learner comes to know what he knows. It was found that children, adolescents and even adults construct or make meaning about the world around them based on the context of their existing knowledge (Lewellyn, 2005). Constructivism theory provides a framework through which the emergent ideas about teaching, learning and assessment can be unified (Young and Collin, 2003). According to this theory, the difficulty and challenges confronting classroom teachers are that of the

reform strategies in curriculum, instruction and assessment organized around the theory of constructivism which are informed by different assumptions about the nature of knowledge and about the human capacity to learn that are traditional classroom practice (Kim, 2005).

Constructivism is a psychological theory of knowledge which argues that human construct knowledge and meaning from their experiences. This theory lays emphasis on not accepting what you are told but your prior knowledge about what you are taught and your perceptions about it. Active involvement of students is emphasized in constructivism, hence knowledge gained last long in their memory. Kant cited in Dogo (2016) elaborated this idea by asserting that human beings are not passive recipients of information but actively takes knowledge and connects it to previous assimilated knowledge and makes it theirs by constructing their own interpretation. This theory emphasized that learners have an innate sense of the world and this domain allows them to move from passive observers to active learners. Constructivists emphasized on the principle of teaching which says teaching begins from what the learner knows to what he does not know. Constructivism is not accepting what you are told but your prior knowledge about what you are taught and your perception about it. Active involvement of students is emphasized in this theory. Hence, knowledge gained by students last long in their memories.

According to Mahoney cited in Adesi (2014) students come into a classroom with their own experiences and a cognitive structure based on those experiences. These preconceived structures are valid, invalid or incomplete. The learners will reformulate his/her existing structures only if new information or experiences are connected to

knowledge already in memory. Inferences, elaboration and relationship between old perceptions and new ideas must be personally drawn by the student in order for the new idea to become an integrated useful part of his/her memory. Memorized facts or information that has not been connected with the learner's prior experiences will be quickly forgotten. In short, the learner must actively construct new information onto his/her existing mental framework for meaningful learning to occur. Omalabo (2009) discovery teaching method is an activity-based teaching method, which involves the students in the learning process, placing less emphasis on transmitting knowledge and more on developing students' learning skills. Based on this fact it is assumed that discovery teaching method which is an activity-based method will aid better learning in Economics. Edward cited in Ugbe (2013) pointed out that the responsibility of learning should reside increasingly with the learners where they are actively involved in the learning process-unlike previous educational view point where the responsibility rested with the instructor to teach. In a constructivist the role of the teacher is to organize information around conceptual clusters of problems, questions and discrepant situations in order to engage the student's interest. Teachers assist students in developing new insights and connecting them with their previous learning. Ideas are presented holistically as broad concepts and then broken up into parts. The activities are student-centered and teachers are only to guide the process of the activities. This theory is relevant to the study because teachers assist students in developing new insight and connecting them with their previous learning. This theory is also useful in the study because the purpose of education is not only to impart knowledge, but instead to facilitate a child's thinking and problem solving skills which can then be transferred to a range of situations. Specifically,

education should also develop symbolic thinking in learners. Dewey in Iyabonu (2016) sees learners as active learners who construct their own knowledge. It implies that learners have different styles of learning a given concept.

### **2.7.3 Gagne Theory of Instruction**

This theory was propounded by Robert Mills Gagne in 1965, which is popularly known as Gagne's theoretical framework. The theory suggests that learning tasks for intellectual skills can be organized in a hierarchy according to complexity: stimulus recognition, response generation, procedure following, use of terminology, discriminations, concept formation, rule application and problem solving. The primary significance of the hierarchy is to identify prerequisites that should be completed to facilitate learning at each level. Prerequisites are identified by doing a task analysis of a learning/training task. Learning hierarchies provide a basis for the sequencing of instruction. Gagne postulated nine levels of instructional events and corresponding cognitive processes designed to guide the teacher in developing and delivering a unit of an instruction. These levels are: gaining attention (reception); informing learners of the objectives (expectancy); stimulating recall of prior learning (retrieval); presenting the stimulus (selective perception); providing learning guidance (semantic encoding); eliciting performance (responding); providing feedback (reinforcement); assessing performance (retrieval) and enhancing retention and transfer (generalization). Teacher who occupies the most central position in the teaching and learning process utilizes learning progression along which learners are expected to progress in a domain. Learners learning goals are clear, focused on the intended learning objectives. All learners will be active provided they have a set goal. Instructional modifications for students are planned

from carefully elicited evidence of students learning. Descriptive feedback identifies for students the specific knowledge and skills needed to achieve the behavioural objectives. Teacher facilitates the development of peer teaching which will boost students' progress towards a learning goal. The researcher intends to apply this theory to the study, considering the fact that, teachers support all students in making connections to construction of new learning in order to make decisions and solve problem. Teachers and students are partners in the teaching and learning process. Teachers facilitate time for learners to learn collaboratively. Teachers use meaningful and authentic assessment in a real world context. In student-centered classroom, students are directly involved and invested in the discovery of their own knowledge. Through peer-teaching, discovery methods, learners collaborate and cooperate with others, learners engage in experimental learning; that is authentic, holistic and challenging. Students are empowered to use prior knowledge to construct new learning. This theory is relevant to this study because it gives the stages that are involved in the teaching and learning process within the classroom or outside the classroom situation. It is also relevant to this study because it will induce learners to engage in a variety of thought-provoking activities such as explaining, finding evidence and examples, generalizing, applying, making analogies and representing the topic in new way.

## **2.8 Economics Education Curriculum in Nigeria**

It is quite important and interesting to note that Economics is the nucleus of the body of knowledge called social science. Consequently, to identify what gave impetus to the development of Economics is as good as to trace the Economic Education curriculum in Nigeria. The curriculum of Economics is designed by the Comparative Education

Study and Adaptation Centre (CESAC) to meet the requirements of Economics in the new system (Itodo, 2011). The theoretical foundation of Economics has been integrated with the practical application which is meant to equip students of senior secondary schools with the basic knowledge and skills that will enable them appreciate the nature of economic problems in any society. Based on this philosophy, these are the set objectives for Economics: understanding of basic economic principles, concepts and tools for Economics analysis; to have knowledge of the structure and functioning of economic institutions, commercial, industrial and financial; understand the basis for rational economic decisions; understand and be able to explain the basis and structure of the West African economy, including the roles of agriculture, industry and mining and their contributions to the national income and ability to follow the roles and status of the West African countries in international economic relationships (Ayegeba, 2015). Also, it is of paramount importance to mention here that, although there is no consensus as to the genesis of Economics, there is no controversy in respect of its long-standing history. In other words, Economics is not of recent origin. It has been with man for several generations. According to Ujone cited in Ogokwu (2010), Economics is as old as a man because man engages in the art of production and distribution of goods and services to meet the needs of human in the society and this may be buttressed by that Economics is not a modern invention of man.

There is the belief that Economics came into existence before the development of writing. This belief is confirmed by Matulich and Heitager in Okwori (2010) when they observed that “in earliest recorded history, it was the need for Economics information that actually brought about the development of writing”. Similarly, Onoyi (2013)

highlighted that “since the beginning of civilization humanity has tried to keep account of economic activity”. In order to substantiate the ancient nature of Economics (as it even preceded the development of writing) he went further to quote Eric in Ujah (2012) – who said: the invention of writing in the Middle East dated about 3000 B C marked an epoch in man’s career because it enhances the transmission of knowledge and ideas. Actually, for many centuries after its invention writing was used solely to keep track of the intake and1 outgo of treasuries and warehouses. Writing was invented not to write books but to keep records of economy activities.

Obviously, Economics is as old as human civilization. And it has been experiencing evolution along with the advancement of such civilization. This position is confirmed by Atama (2009) when he opined that at each stage of development man has used Economics knowledge according to their needs and within the limits of the recording and analyzing techniques known to them to enumerate and control assets, as a recording device for agents, stewards and tax gatherers, as evidence of trade, for the control of production and the management of business. For the purpose of simplicity, good understanding and easy exposition, the historical development of Economics would be traced under the following parts:

### **Development in the Period Prior to Nineteenth Century**

The concept of Economics emerged in the life of man as a direct result of the need to keep records of economic and financial information. And it became so glaring when man started to engage in trade. According to Becklund in Apochi (2014), modern Economics developed out of man’s adjustments to the financial environment of the times



when early man became engaged in trade. He needed a written language to provide a record of his transactions. The earliest known Economics records consisted of notched sticks, knotted strings and later painted objects and drawing. They went further to mention that “Archaeologists have determined that by the year 5,000 B C graphic symbols were used for commercial communication throughout Northwest Africa, Mediterranean Europe and the Near East. These symbols were actually the first known written language. The earliest known language and tablets, apart from educational texts, were exclusively records of Economics”. The earliest forms of keeping Economics records were clumsy and cumbersome. Consequently, Economics records of the time were kept in a very scanty and summarized form. However, the development of the art of writing coupled with convenient writing materials, the replacement of barter system of exchange with the use of money and the development of arithmetic brought a significant improvement in keeping Economics records. This development was attested to by Hendriksen in Omale (2013) when he stated that “a more basic antecedent of Economics is the ability of expression. This includes the art of writing, the development of arithmetic and the wide-spread of the use of money”. Moreover, the monumental increase in the volume of commerce in some part of the world from the late eleventh century to the later part of the thirteenth century has a great impact on Economics in terms of its development. The upsurge in the commercial activity of the period was brought about by the effort of some European explorers or Crusaders.

Hendriksen in Omale (2013) captured the situation better thus “the most important condition giving rise to the development of Economics was the rise of trade in and around medieval Italian cities. The crusaders from the close of the late eleventh

century to the later part of thirteenth century provide the impetus for the development of trade among the Italian cities and with the East". As trade continued to expand, wealth accumulated in the Italian cities and individual trading became largely replaced by trading through agencies and partnerships. Partnership was therefore important in the development of Economics because it led to the recognition of the firm as a separate entity distinct from the owners. The agency and credit in the world of commerce actually brought the need to improve the existing Economics systems. For instance partnership created the need to keep adequate Economics records that would ensure the determination of individual partners' level of investment and the share of profits. The emergence of credit equally required Economics records that would enable adequate information about the loan that is granted or obtained. And lastly, the agency relationship required stewardship Economics for the benefit of the principal. Another important impetus behind the development of Economics in the seventeenth and eighteenth centuries was the individual and economic changes in Western Europe. There was the emergence of industrial revolution and the growth of Joint Stock Company and other forms of organization. However, it must be noted that the impact of these factors was much felt on Economics during the nineteenth century and beyond.

### **Developments in the Nineteenth Century**

Although Economics took a long time to evolve, its development increased in the nineteenth century comparable to the preceding period. The force in this development was the industrial revolution. As the scale of enterprises increased following technological breakthrough such as mass production, and as fixed assets grew in importance, it became necessary to account for depreciation, the allocation of overheads

and inventory (Oodo, 2014). In addition there was emergence of joint stock companies. And this significantly brought about the separation of owners from management. This situation brought more pressures on the Economics systems of the time in order to meet some certain needs. In the words of Becklund in Apochi (2014) it was not until the onset of industrial revolution in nineteenth century that the increasing magnitude of the manufacturing enterprise and the division of ownership created the needs for professional accountants. In Britain, the laws regarding the public company and the keeping of accounts were established by the English Companies Act of 1844 and later reinforced the Companies Act of 1862. So the English companies Act established that Economics records were to be kept and audited by the owners or their representative to ensure the honesty of persons charged with financial responsibilities". The most important things to note here are that the industrial revolution and government legislation greatly influenced Economics development during the period and the development of this period brought the need for professional accountants.

### **Development in the Twentieth Century to the Year 2000**

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

Since the early 1900s, the rapidity of change and the increasing complexity of the world's industrial economy necessitated still more changes in Economics. For instance, mergers and acquisitions and the growth of multinational corporations fostered new internal and external reporting and control systems, with wide-spread ownership of modern corporations with new audit, reporting procedures and new agencies became involved in promulgating Economics standards. Such agencies included securities and exchange commissions, stock exchange and internal revenue agencies.

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

The Economics profession can be said to have attained a full fledged status in the present day. According to Welsch and Anthony in Ochibgo (2012) Economics has attained the status in the profession similar to Law, Medicine, Engineering and Architecture. As with all recognized professions, it is subject to licensing, observes a code of professional ethics, requires a high level of professional competence, is dedicated to service to the public, require a high level of academic study, and rests on a common body of knowledge". Therefore, to become a professional Economist, one needs to pass a required professional examination of appropriate body of Economics profession in any given country. Economics has witnessed a lot of technological development in the twentieth and twenty first centuries. The emergence of computerization of Economics

systems has led to improvement in the ease of handling Economics activities in different organizations. It is hoped that Economics will continue to evolve along with changes in the technology.

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

### **2.8.1 Importance of Economics Education in Nigeria Economy**

Economic activities such as buying and selling, construction works, partnership and agency businesses, and others like banking and insurance, communication, transportation and among others, all require money in running their activities for the overall development of the economy. The need to keep proper records of the source of funds and how the funds are utilized is the overall importance of Economics in the economy and only trained/qualified personnel can impart the required knowledge and skill to the students. The need to study this all-time important subject (Economics education) has been emphasized by various scholars. Abah (2014) remarked that “the economic actors, in both the private and public sectors of the Nigerian economy are required by various laws and professional pronouncements to make sure that they provide users with satisfactory financial report so that they could be guided in taking various economic decisions. Okewu (2015) supports this claim by saying section 334 of Companies and Allied Matters Act (CAMA) 1990 requires directors of every limited company to prepare in respect of each year of the company, financial statements, which

shall include a profit and loss account; statement of economic policies; notes to the accounts; the balance sheet as at the last day of the year; the directors report; the auditor's report; a cash flow statement; a value added statement; a five year financial summary; in the case of a holding company the group financial statement. He further added that these statements should comply in form and contents with schedule II in the Statement of Economic Standard (SAS). This being the case, Economics education should be provided early enough especially to secondary school students who will be the ultimate managers of financial institutions and professional bodies in the economy. Stressing the role of Economics education in the economy Ademu (2014) said "the importance of Economics education lies in what money and wealth can do and the need for their appropriate management". From the above explanation, the need for Economics education cannot be over emphasized in that it allows for proper accountability and effective decision making about the use of funds by the Local, State and Federal Governments, business organizations and citizens irrespective of their professional/occupational inclination. Odumu (2015) agrees with this when he stated that "the following need the knowledge of the basic principles of Economics analysis, the house wife, for proper management of and accountability for family feeding allowance (this will remove suspicions and accusations of misappropriation and extravagance from the husbands); the contractor, to enable him put appropriate quotations and calculate his true profits on contracts, the prospective investor, for correct assessment of the results and financial positions of companies he wishes to invest in or proper project evaluation". Based on the above, Adaji (2015) itemized the importance of Economics education from the perspective of Economics objectives as: understanding of basic Economics principles, concepts and tools for

Economics analysis; to have knowledge of the structure and functioning of economic institutions, commercial, industrial and financial; understand and be able to explain the basis and structure of the Nigerian economy, including the roles of agriculture, industry and mining and their contributions to the national income and ability to follow the roles and status of the West African countries in international economic relationships. According to Obenta (2013) Economics as a subject has various values to the students and these values among others include:

1. The cultural values: Economics has some intrinsic value that makes it appealing as a school subject, for example; there is a great logic in it. It connects learners to the essential of everyday economic life issues and it is also concern with almost tropical events such as International Monetary Fund (I.M.F.) and Structural Adjustment Programme (S.A.P.).
2. Intellectual training: Economics also contribute to the intellectual development and training of the learners who will in turn contribute their own quota to development of Nigerian economy. Economics is not primarily a body of knowledge, but rather; it is a method than a doctrine of apparatuses of mind, a technique of thinking which helps its possessor to draw rational conclusion on an economic issue.
3. Vocational training: The vocational nature of Economics made it readily acceptable to students. Economics as a subject is of direct utility in many branches of industries and commerce in the economy. It is also an essential part of most professional examination like banking, accountancy, insurance and secretarial.

Ike (2016) said that the study of Economics serves useful purpose in the development of Nigeria economy because it gives us facts and shows us what may be the outcome of certain economic decision taken by our leaders; it helps us to decide which of the several alternatives to choose, it charged its recipient and government to make wise and rational choice that will satisfy their needs in the presence of unlimited wants and limited resources.

However, from the above stated values and importance of Economics as a subject to be taught to students in senior secondary schools and to the country, it becomes imperative for all stakeholders in the education system to ensure that adequate attention is given to the teaching of Economics and how it is being taught so as to achieve the stated objectives for equipping the students and for national development. Reynolds in Okewu (2014) summarized these when he said every group in the economic chain from the farmer to the merchant needs Economics information”. It is Economics education that provides Economics information. This is supported by Elabo (2014) who opined that “Economics education has the opportunity to assume the leading role and to accept the responsibility for developing the skills, knowledge and attitude necessary to meet the challenges of stewardship and emerging information technology”. This is so because financial information is a powerful tool for assessing the overall performance of the national economy in terms of growth and wellbeing of the citizens.

### **2.8.2 Economics in Everyday Life**

Economics is the queen of all social science subjects; other social science subjects like Government, Commerce, Economics and Civic Education depend so much on the



concepts of Economics. Economics deals with the production, distribution of goods and services and the allocation of scarce resources to satisfy unlimited wants. The world is made up of economic challenges, we study Economics to acquire and learn the skills on how to satisfy our unlimited wants with the available resources at our disposal (Une, 2014). Studying Economics gives us training in rational thinking and the knowledge of Economics helps us to become rational beings. Those that are trained in Economics are known as Economists (Abuh, 2011). Economics helps in improving the quality of our life and quality of our products today (Ibrahim, 2006). Studying Economics analysis , such as demand and supply, theory of cost, production possibility curve, laws of diminishing marginal returns, utility and other concepts in Economics allows man to understand his needs, taste, environment and possible changes he may undergo under different conditions (Idio, 2010). All the household materials, such as soap and detergents for washing, hair creams and perfumes and majority of cooking utensils, plastic materials for wide variety of uses are all products of human needs but the resource to achieve it are limited (Wabama, 2014).

Economics contributes towards providing our basic needs and improving the quality of our lives and products in the following areas: agriculture; production of different type of fertilizers and insecticides have been possible by chemical means, these increase food production greatly. The preservation and storage of food for long period is made possible as a result of standard warehouse prepared by Economists and also by means of chemical process, so that the food can be exported to distant places and made available to more people, to reduce rate of hunger and malnutrition. Many food substances today are enriched by addition of essential nutrients, (Wabama, 2014); man-

made textile fibers products are as a result of intensive economic researches made available a wide range of clothing materials; this supplements the scarce natural fibers. Building materials such as cement, steel, bricks and tiles are produced by industries. The economic researches have really improved our local industries and these properties can be modified through the knowledge of Economics to suite a certain purposes (Wabama, 2014); the healthy life many of us are enjoying today is due to the variety of products that are available as a result of advanced Economic Research Institutes. These researches are financed by private individual firms, governmental and non-governmental organizations. These researches will contribute to discover new economic policy to meet the challenges of time; and career in Economics, Nigeria is a developing nation with an increasing demand for skilled man power. Many job opportunities are available for students with knowledge of Economics in the public and private sectors, these opportunities are more prevailing in the following areas: Teaching services, Economics teachers and lecturers in secondary schools, polytechnics, college of education and universities, managers in financial institutions and head of businesses establishment, are all students of Economics, that is to say, they should have studied Economics before being what they are (Une, 2014).

### **2.8.3 Economics Learning and Retention**

Permanent and meaningful learning is the target of any educational endeavor. Understanding and retention are the products of meaningful learning when teaching is effective and meaningful to the students (Bichi in Anawo, 2009). According to Ujoh (2016) direct based instruction or teaching has been developed based on three research areas; they are: research in cognitive science, research on master teachers and research on

cognitive supports. Though these are three different fields of research, they work to supplement and complement each other. These three areas have led to 17 principles in regard to learning using direct based instruction as an approach to learning. Several studies have continued to show that teaching and learning requires innovation. Ogbe and Akur (2014) are of the view that innovative teaching and learning should: motivate students, stimulate their desire to learn, deliver the message in a clear way, create a conducive learning environment, facilitate creativity, self-assessment during learning and also promote problem-solving in learning. All these stages will enhance retention of what is learnt. However, they also believe that retention will be strong within students; if learning objectives, learning materials, human resource, time and facilities are considered before the teaching and learning process take place.

In an effort to establish instructional methods (peer-teaching and discovery) of teaching Economics education curriculum, there is need to understand the principles of instruction. According to Ochefije (2015) there are 17 principles of instruction, which include: starting a lesson with a short review of the previously learnt material, presentation of new materials in a gradual process while actively engaging learners, do not over load them, but introduce material in bits; be clear and detailed during the instruction process and in explanation; use question-feedback approach to check for understanding; motivate and encourage student participation; do more of facilitation than teaching or instructing; encourage thinking loud (letting students to ask questions); give example model of worked-out problems; ask for feedback from students on what they have learnt; rectify student response where necessary; encourage being independent and autonomous; and monitor students activities during individual practices.

Retention is defined as the ability of one to remember what he has learned in the later time, it takes place when learning is coded into memory. Thus, appropriate coding of incoming learning or incoming information provides the index that may be consulted; so that retention takes place without elaborate search ability retains and consequently, remembers what we have experienced, or what we have in memory (Ojoyi, 2011). There are several factors that influence retention. According to Blair and Simon cited in Elegwo (2013) anything that aids learning should improve retention while things that lead to confusion, or interference among learning materials decreases the speed and efficiency of learning and accelerates forgetfulness. Interference may exist in several forms such as retroactive inhibition or emotional inhibition. Retroactive inhibition results when things are learned, the result of that learning usually occurs after a passage of time. In the intervening period, many other things are learned. These interpolated learning interfere with the memory of the original materials and the interference is known as retroactive inhibition (Blair and Simon in Elegwo, 2013).

According to Odike (2010) retention is based on model for which the meaningful stimuli are processed by the brain at a deep level. This model is attributed to the long time memory (retention) which is based on our ability to process semantic knowledge deeply by associating recall items. According to Ohemu (2009), opined that students that are taught using peer teaching method had better retention ability than those taught with traditional method. This means that peer-teaching will enhance students' academic performances positively.

## **2.9 Concept of Teaching Method**

Methodology deals with the study of methods. Method means a general way of doing something. Teaching method means a general way of teaching. There are several teaching methods that the teachers should know and choose from whenever he or she wants to teach. These methods include teacher-centered, student-centered, group instructional methods, individual instructional methods, conventional/traditional method and recent approaches. According to Ugbo (2016) teaching methods are approaches available for teachers to choose from with the aim of achieving the stated behavioural objectives during the classroom activities. Method refers to an ability to present, discuss and explain issues, points, ideas to the best of one's knowledge for the purpose of understanding. Odoyi (2013) defines method as "a planned way of doing something, especially one that a lot of people know about and use". Method also is a process of imparting knowledge, ideas, and beliefs on a person or group of persons. According to Adikwu (2015) method is generally regarded as a guideline for promoting teaching and learning which involves various ways of manipulating instructional resources, materials and communication to make a learner receive the teacher's message clearly. This description shows that in the process of teaching several methods may be employed by the teacher to facilitate understanding by the learners.

Teaching is regarded as an activity in which a teacher, learners and material come in close contact with one another for the purpose of learning. Farrant cited in Edeka (2016) argued that "the two terms, teaching and method of teaching are used interchangeably to mean a process of directing and controlling the experiences of learners, stimulating the learners, organizing experiences for the learners and helping individuals to develop potentialities". Furthermore Gagne cited in Akpa (2010) stated that a teaching

method is a recurrent pattern of teacher-behaviour applicable to various subject matters, characteristic of more than one teacher and relevance of learning. A close examination of all the definitions above reveals that a method is an activity that brings about desirable changes in learners that a teacher uses.

Teaching methods and academic performance in the context of this study refer to the concept of passing on relevant, adequate and skillful information to students in order to enhance their academic performance. According to Audu (2014) teaching method means a general way of impacting values, tradition, skills and attributes of the society into the younger generation with the view of making them to fit into the society. This implies that teaching is the passing on of ideas, knowledge, skills, attitudes, beliefs and feelings to learners, with the aim of bringing about particular change in the learners and the changes should then lead to different acceptable behaviour. According to Obotu (2010) teaching is a complex way of guiding the learner through a variety of selected experiences to bring about worthwhile change in behavior. This means that teaching is not done haphazardly but it has to be done sequentially with a view of molding the learner's behaviour. According to Anegebe (2016) teaching methods are instructional processes which are in the form of teachers' behaviour (for example discussion, demonstration, discovery, project, Dalton plan and teacher-centered), delivery (for example printed materials, film, programmed instructional) and organizational structures for promoting learning (for example tutorial and independent study). This means that in teaching and learning process, the kind of learning and the objectives determine the method to be used in order to achieve the stated behavioural objectives.

According to Omede cited in Ajogwu (2016) a method is simply an instrument used by the teacher to communicate to the learners the knowledge, ideas or truth under consideration. But it should be communicated to the learner in such a way to give understanding, lead to acceptance and conviction and to secure response. Method is not knowledge, ideas or truth under consideration, but the teacher's instrument to communicate knowledge or truth. This implies that method is the way that leads to the goals set, so it should be used in harmony with the principles of learning as Omede counseled.

### **2.9.1 Types of Teaching Methods**

There are many teaching methods to be used by teachers depending on the concept to be taught. According to Musa (2010) the popular teaching methods that are mostly used in Economics as a subject include:-

#### **(a) Lecture Method**

The term lecture method is sometimes called explaining method or teaching method. It is probably the first method the teacher uses when learners start learning any subject. Verbal communication, short of manipulative work, is the chief characteristic of this method (Abubakar and Dantani, 2005). Lecture method may be the quickest way to impart facts through brief and spontaneous explanations in connection with other teaching methods. According to Garba (2014) lecture method is sometimes the most appropriate method for disseminating information to a large group of students. Lecture method is a teacher centered approach in teaching and learning. Most times learners are passive because they only listen and may jot down facts where possible. The Universal

Basic Education Board UBEB (2008) described lecture method as “a process whereby the teacher verbally delivers a pre-planned body of knowledge to learners. It involves verbal presentation of ideas, concepts, generalization and facts. It is characterized by one way traffic flow of information from teacher to students”, lecture method is mostly suitable at higher levels of learning, all that the teacher should do is to try as much as possible to arrest the interest and attention of the learners (Omale, 2015).

According to Aliyu cited in Agada (2016) the suitability of lecture method in lesson delivery is:-

- i) The teacher can pass across large volumes of information to students in a short time;
- ii) It is particularly suitable where learners are many in a class;
- iii) It makes learners to read wide to make-up for some information they could not get in the class; and
- iv) Teachers who use lecture method always have control of their class because learners are just passive listeners.

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

- i) It is not suitable for skill based courses;
- ii) The teacher is often tempted to believe all learners understand him where as not all learners learn at the same rate;
- iii) Learners’ participation in the lesson is discouraged. It is teacher centered; and



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

### **(b) Project Method**

Project method of teaching may be looked at as a teaching strategy used by teachers to assist students in identifying a problem either in their academic work, school environment or in the community where they live and proffer solutions to solving such a problem. Project method is used in carrying out tasks by an individual student or group of students to construct or produce something that illustrates some mechanism or technological principles (Abe, 2011). Essentially, learners are required to develop a topic based on a given problem, for the teacher's approval. The teacher who supervises the work develops format/guidelines for the class. The guidelines are in stages such as introduction/background of the project, purpose of the work, objective(s) to be achieved, specific thing or area that the project will cover, method of collecting data and information, how conclusions are arrived at etc. It is the investigations in the stages that learners do themselves that make project method of teaching learner centered approach. Project method is a significant event of activity having educational value and aimed at one or more definite goals of understanding which involves investigating and getting solution to problems through planned manipulation of physical materials carried to completion by students and teachers in a natural real life manner (Agaba, 2009). The teachers' involvement in project method is less compared to other methods of teaching because learners do most of the activities. The major role of the teacher is to guide and correct students when there are deviations from set goals and the final evaluation of the completed work.

## **Benefits of Project Method to Students**

Project work encourages students to develop the spirit of independent work which builds confidence and ability to undertake harder tasks later in life especially, when it is done on individual basis. In group project work, students have the opportunity to learn leadership and organizing qualities which they may develop during their interaction. Students learn to make decisions regarding planning and execution of the project on their own. It logically follows that process of thoughtfulness and responsibility in academic work are requirements for growth and performance (Idoko, 2011). The major advantages that accompany project method for students and teachers are that, it helps students translate theoretical knowledge into practice which makes teachers have a sense of fulfillment or pride that they have done their job.

### **(c) Excursion/Field Trip Method**

This method is also called field trip. The use of excursion or field trip is an arrangement where learners are led by their teacher to visit an industry, agricultural farms, historical sites to mention among others to see for themselves how things are done practically. Onimisi (2013) observed that field trip is an effective method of studying modern industrial and business practices and processes which are not possible in the classroom.

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

interest to embark on the trip. The concluding part is the report writing by students about what they have seen and learnt from the trip. The experiences students pass through help them to actualize their dreams on graduation. Excursions are not easy to organize and they are expensive, secondly accident may occur thereby endangering the lives of the teachers and students. It is also time consuming especially on the logistics involved.

**(d) Discussion method**

This teaching method largely depends on sharing ideas, information, beliefs, attitudes and experiences. Discussion is a two-way verbal communication between teacher and the learners or between learners (Bello, 2012). An effectively guided discussion method brings about orderly exchange of ideas which in turn fosters respect among the members as each member makes an adequate contribution.

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

### **(e) Problem solving/inquiry method**

Problem solving or inquiry method of teaching is a useful method of developing skills in students to learn how to solve problem by themselves by reflecting and pondering on alternative means of arriving at the expected solution. According to Adeyi (2012), problem solving increases students understanding of related concepts and judgment in social science subjects such as Economics, Government, Geography and Social Studies. UBEB (2008) regards this method as the type that allows learners to use scientific investigation to arrive at generalization and conclusion. On the other hand, Okechukwu (2010) opined that this instructional method challenges students to “learn to learn” working in groups to seek solution to real life problem. It is a method that allows students to work on their own under the guidance of a teacher until they arrive at a clear understanding of a problem by themselves and accept responsibility for all the trial and error steps before finally arriving at the correct answer. The major advantage of this method is that students have the opportunity to work at their own pace and know the purpose for which they are working. It builds research skills and experiences that help brilliant students become inventors in life. It generates interest and enthusiasm especially when expected solutions are arrived at in the end. However, time may be taken and trial and error involved could discourage some learners.

- i. **Teacher-centered Method:** This refers to situation in the classroom or outside the classroom activities where by the teacher dominates the activities of the lesson, while learners remain passive listeners. It is also a method

whereby, the teacher begins and ends the lesson with little or no contribution from the learners. Examples of teacher-centered method are: lecture, story-telling and demonstration methods.

ii. **Student-centered Method:** This when learners dominate the activities of the lesson. Students are active participants while the teacher is guiding and directing the activities of the unit of an instruction. Examples of student-centered methods are: project, discovery, inquiry and discussion methods.

iii. **Group Instructional Methods:** These are approaches that allow a group of learners to be taught together at the same time by a teacher. Examples of group instructional method are: lecture, demonstration and story-telling.

iv. **Individual Instructional Methods:** These methods enable single individual to be instructed. This may be in form of programmed instruction or individualized instruction.

iv. **Conventional/Traditional Methods:** These refer to methods that have been in use for a long period of time. Examples of conventional/traditional methods are: lecture and demonstration methods.

v. **Lecture Method:** This method is a process whereby the teacher verbally delivers as pre-planned body of knowledge to his or her students. This is a method whereby the teacher does the talking while the learners are passive listeners. It is a method that involves telling, the teacher tells and sometimes illustrate while the learners listen and watch. The learners have little or nothing to contribute. It is not suitable for young learners and should be used in exceptional conditions.

- vi. **Peer Teaching Method:** This is a method whereby some above average students are given some topics to teach their fellow classmate while the teacher guides and controls lesson as it progresses. This is also a method of teaching in which some students, the intelligent or good ones, teach their fellow students (Yusuf, 2012). In this context, students who will do the teaching are usually given specific topics to prepare and teach. They are thus placed in the position of teachers and hence they research to get enough information based on specific objectives. When peer-teaching takes place, the classroom teacher may be present to hear the teaching exercise.
- vii. **Discussion Method:** It refers to as a step by step procedure of teaching a specific aspect of subject or course unit in order to get the desired objectives. This method is suitable mainly to the topics that are debatable and problematic. It is a method that utilizes a guided interaction to highlight a particular subject matter with the aim of facilitating the participants. Discussion may take the form of the whole class, small group, teacher/student and debate depending on the objectives to be achieved and the ability of the learners. There are different forms of discussion methods depending on the objective to be achieved, the class size and the ability of the learners. The different forms are: whole class discussion, small group discussion, teacher-student discussion and debate discussion.
- viii. **Recent Approaches:** These are new approaches such as programmed instruction and computer assisted instructions (C.A.I.) because they are relatively new in the classroom. Examples of recent approaches to classroom

instruction are: power point program (P.P.P.) and projector for teaching. With the use of C.A.I., projector, power point program and electronic materials such as television, over-head projector and slide; instructions are packaged in a very broad manners and which take care of wide range of learner in a classroom with less stress and time. Many students will be able to learn faster as the package takes care of various learners' interest at the same time. Teacher can handle a very large class conveniently as the teacher is guiding and displaying the instructional materials on the wall with the use of projector.

### **2.9.2 Selection of Teaching Methods**

The selection of a teaching method and formulating specific objective of the lesson is considered the key to the success of any lesson. In fact, presentation of a lesson both at low and high levels of teaching must have a purpose and reasons from where the aims and objectives arise. According to Ele (2010) the teaching procedure to be adopted by the teacher may depend on many factors including age of the learner, the topic of the lesson, the time allocated to the lesson, the content of the lesson, class size, teaching aids available to the teacher, aims and objectives of the lesson, the class to be taught and the capability of the teacher. This means that a teacher does not just select any method at will but should consider the circumstance that surrounds the learners and the topic of the lesson.

In the selection of teaching methods, pragmatic, pedagogical and psychological considerations have to be made. According to Iga (2010) the following principles should be considered when there is the need to select teaching methods. These principles are:

**Learners' characteristics:** The learners in teaching and learning situation exhibit some individual differences. The teacher has to consider the basic characteristics of the learners in the area of interest, beliefs, age, mental level, learning styles and social class; and hence, curriculum materials to be selected should relate to the individual differences of the learners. So, teacher is expected to make sure that the curriculum materials being selected will be appropriate to the age, mental level, interest and background of the learners. The learner is said to respond to a stimulus only when such stimulus material is interesting and challenging and that stimulus material could only interest and challenge a child when the child's individual characteristics are satisfied.

**Types of learning identified in the objectives:** This concerns the types of attitude, skill or knowledge the teacher wants the learner to be exposed. In this direction, appropriate method suitable for the unit of instruction should be selected. Also, the nature of the subject matter; that is, concrete or abstract, skill oriented or information oriented. Learners as human beings learn through various senses and hence, curriculum materials that appeal to one or more senses should essentially be selected. Also, the learning styles of the learners are expected to be considered. Iga (2010) noted that the learning styles of learners are function of their ultimate achievement in classroom activities. This being the case, teachers should endeavour to devote time to determine various learning styles of their learners under their care. Some students may prefer learning from prints, some from sound recording and some others from real things. Also, some might be highly motivated to learn by human interaction because of varying learning styles of students; if there are situations of individualized instruction, they should be allowed or given the opportunity to go for the appropriate instructional packages or suitable programmes. But for group



instructional setting, the teacher will be expected to aggregate the learning styles of the learners.

**Availability of the instructional materials and cost:** The existence of instructional materials in one's environment is a major factor that guides the decision of selecting a method of teaching in or outside the classroom. Some methods required particular materials for utilization and hence if not available such methods cannot be utilized. For example, a Chemistry teacher cannot teach or use demonstration method if he or she does not have the required tools and chemicals. Also, as finance is one of the major problems facing schools, the teacher should consider the cost or financial implication of the curriculum materials to select for classroom utilization.

**Teachers' capability and the time available:** In the selection of curriculum materials, the teachers should be sure that he or she is capable of making use or operating the materials being selected. In addition, the teacher should consider if he or she has the skill to manipulate a particular type of curriculum material when problem arises during utilization in the class. Once the teacher has selected a particular type of curriculum material to use, he should follow the guidelines and procedure for utilizing the material. In respect of teacher utilization of curriculum materials, there is no doubt that teachers need the basic knowledge and skills necessary to make the fullest use of available materials. But one of the reasons why some available curriculum materials are not being used by teachers in the school system is that of lack of necessary skills to operate them. Mere selection of teaching methods in a teaching and learning situation does not make any impact on the instructional delivery. The teacher needs to have the knowledge of how to use the method in the classroom. The time available for the instruction should be put

into consideration by the teacher before selecting the methods of teaching. Also, the time a teacher has to cover the scheme and syllabus or course outline may influence the method of choice. Many teachers opt for the conventional method when they have limited time to cover their syllabus or course outline.

### **2.9.3 Teaching and Learning of Economics in senior secondary schools**

Many of the professional teachers do not use appropriate teaching methods and teaching aids in the classroom that can stimulate students. Some use uninspiring and sterile methods (Obodo, 2014). Thus, Economics teaching is usually didactic and most often pitched at an abstract level. This suggests that little or no consideration is being given to the psychology of the learners who may require concrete realities. In most Nigerian classrooms Economics instruction is hardly related to real life situations even when it is obvious to do so with little or no efforts. Akinsola and Popoola cited in Ekundu (2015) claimed that many teachers in schools use only the techniques they know even if such techniques are not relevant to the concept under discussion. Effective teaching of Economics in senior secondary schools should emphasize active learning (participation by learners). The ancient Chinese proverb: ‘I hear and I forget; I see and I remember; I do and I understand’ (Adanu, 2013) is an indication that learners learn best when they are active rather than passive learners.

The issue of appropriate methods in the teaching and learning of Economics is vital, as this constitutes what, and how Economics could be taught in our schools (Okpe, 2012). Effective teaching methods adopted by the teachers could influence the cognitive, affective and psychomotor outcomes of the learners. It is in recognition of this fact that

emphasis in Economics education is now being placed on the need for re-examination of methods of teaching in the nation's educational institutions (Weboon, 2009). In so doing, a lot of activities such as peer-teaching, discovery, project, discussion and so on that appears attractive to young learners call for attention.

#### **2.9.4 Instructional Methods in Teaching Economics**

There are many factors that influence Economics students learning abilities, most importantly are the instructional methods employed by the teachers to communicate and encourage interactions with his students, the learners' reactions and the subsequent outcome of the whole teaching and learning process. According to Dio (2014) it is something of indiscriminate and unintelligent use of procedures and methods that encourage a poor achievement of objectives. This may also generate a negative attitude on the part of the students who are the learners and varying degrees of frustrations on the part of the teachers, learners and as well as the government. Thus, a question may then arise to which is the best instructional method(s) to teach Economics. The answer is always obvious that there is no method that is best for teaching Economics; however, there are certain topics that demand a combination of more than one strategy to be effectively taught. Therefore, instructional methods in teaching Economics among others are: discovery, peer teaching, discussion, field trip, project, lecture and individualized.

#### **2.9.5 Learning materials for teaching-learning of Economics**

Learning materials are devices that can enhance the quality of instruction in our schools. Some basic tools are required for proper analysis of economic problems. Most of these problems are often presented as statements which may be too difficult to

understand. The use of these basic tools therefore makes it easier for better interpretation and understanding of economic principles. Some of these basic tools used for economic analysis include: tables, graphs, maps, charts, mode, median, mean and standard (Ilemachajo, 2016). According to Adoyi (2012) learning materials are also known as instructional materials that a teacher uses to communicate to his/her learners for learning to take place. Learning materials include flash cards, books, charts, diagram, graphs, model and projector. According to Okorie cited in Nuhu (2010) learning materials create a pictorial understanding of the topic being taught by the teacher. According to Okorie in Nuhu (2010) learning materials are classified into:

- i. Pictorial learning material: this includes photographs, slides, motion pictures, overhead projectors and models. Ali (2016) said that using visual elements in teaching and learning yield positive results. In order for visual enhancements to be used most effectively, teachers should possess skills that include the language of imagery as well as techniques of teaching visually; therefore, guidance in the area of visual literacy for instructors is warranted. Results of the impact of visual literacy in the classroom can be explored further through teachers examining their current use of visual elements and comparing visual content of lessons with student achievement verbal symbol;
- ii. Audio reproduction: audio reproduction also known as audio aids (this includes radio programmed recordings, tapes, loud speakers or public address system) used, for instance, to teach Economics. This helps some students establishing their views on solving problems. Films came into widespread classroom use in the 1940s and 1950s (Ali, 2016). Students today can watch

educational broadcasts to closed-circuit lectures on cable or satellite television; they can also view instructional videotapes and videodiscs ;

- iii. Graphical instructional media: these are diagrams showing a functional relationship between two or more variables. Graph is one of the basic tools used by Economists for economic analysis. Information presented on tables can be translated into graph for better understanding. They include line graphs charts (pie graphs), bar graphs, pictographs (or pictograms), diagrams, sketches, posters and maps;
- iv. Local community resources: these include excursion visits, resource persons and camping in local environment. Study trips let the students experience and see things that they could not experience from lecture or seminars (Ali, 2016). The trip enables the students to develop a better understanding of the region through direct exposure to its economy, culture, history and political system. Through study trip, students projects and guest lectures, the course aims to present students with real-life environmental influences and challenges that impact businesses in a specific country;
- v. Still pictures: the use of images has been shown to assist memory (Ali, 2016). With assisted recall, students are more likely to be able to transfer new ideas and apply this knowledge. A static image may help students' understanding because it is still; it may permit greater access to detail if the image is drawn; diagram can show relationships clearly. Images can be useful in helping students learn through problem-solving, because they can be developed

through the use of images. Skills of analysis and synthesis can be taught and developed using images; and

- vi. Maps: maps constitute an indispensable aid in teaching many subjects like Economics, Geography, Social Studies and History (Ali, 2016). The learning of these subjects becomes unreal, inadequate and incomplete without map media. A resourceful teacher will turn the fear of map into the genuine love by motivating the students. This, however, presupposes the invariable uses of maps at every possible opportunity by the teacher in the classroom, and the possession of individual atlases (a combination of maps) by the students. Every student should also know certain elementary aspects of map preparation such as copying, enlarging and reducing, symbolizing, coloring and preparation of key. Many students develop aversion for maps because they do not know skills relating to map preparation.

According to Uneko (2016), learning materials are therefore important for effective teaching and learning of Economics at the senior secondary school level with the following reasons:

- i. It brings about interest and motivation to the students;
- ii. Varied materials will make students from different background understand better at the same time;
- iii. It allows Economics students to observe difficult concepts in a simple way; and
- iv. It makes Economics teachers to carry the students along during the unit of an instruction.

## **2.9.6 The role of Teacher; students and learning Environment in Teaching-Learning of Economics**

Teacher assumes a wide range of roles to support school and students success. Whether these roles are assigned formally or shared informally, they build the entire school's capacity to improve on students' academic performance and their general well-being. Teachers can lead in a variety of ways; many teachers can serve as leaders among their peers and role models for their students. According to Sola (2016) the following are some of the ways teachers can contribute to their students' academic success and to their schools' improvement:

### **1. Resources Provider**

Teachers help their colleagues by sharing instructional resources. These might include web sites, instructional materials, specimen or other resources to use with their students. They might also share such professional resources as articles, relevant text books, lesson or unit plans and assessment tools. The resource provider when offers to help teachers, specially, a new staff member in setting up classroom with various charts, specimen and models showing various Economics concepts that will enhance students participation in the classroom activities (Sola, 2016).

### **2. Instructional Specialist**

An instructional specialist helps colleagues implement effective teaching strategies. This help might include ideas for differentiating instruction or planning lessons in partnership with fellow teachers. Instructional specialists might study research-based classroom strategies (Olofu, 2010); explore which instructional methodologies are

appropriate for the school; and share findings with colleagues. When a fellow Economics teachers share their frustration with students' poor performance in their classroom, researcher suggests that Economics teachers should map out strategies for teaching Economics. With two Economics teachers serving as instructional specialist, the Economics teachers should examine series of instructions that will be okay for various concepts in Economics in order to improve students' performance.

### **3. Curriculum Specialist**

Understanding content standards, how various components of the curriculum link together and how to use the curriculum in planning instruction and assessment is essential to ensuring consistent curriculum implementation throughout the school system. Curriculum Specialist leads teachers to agree on standards, follow the adopted curriculum, use common pacing charts and develop shared assessments (Sola, 2016). The Economics teachers make use of models, charts, specimen and pictorial to teach Economics concepts in schools; using standards curriculum content as guides to teach and also maintain consistency in their classroom curriculum and administer common assessments.

The teacher is guided by the taxonomy of educational objectives which include cognitive, affective and psychomotor domain. These objectives help the teacher's role to be effective, efficient and ensure that the right content is taught in order to help students acquire knowledge, attitude and skill. According to Fafunwa cited in Ohoyenta (2012), the role of a teacher in the school is to effect positive change in the behavioural pattern of his or her learners and to promote academic excellence by providing students with sound



foundation, facilitating chances of accelerating to higher level, positive norms and standards set by the public and to be a good ambassador of he/her community. Generally, teachers are supposed to be conscious and sensitive to the interest and difficulties of students. To achieve these, teachers should maintain a dynamic and cordial relationship with the learners, other teachers and the community.

Students also have their own part to play if they are to benefit from the teaching-learning process. According to Oke (2010) the attitude of students is paramount in the teaching and learning process. Poor attitude of students towards a particular subject will manifest negatively in their performances. This implies that students with positive attitudes towards the teaching and learning of Economics will perform well both in internal and external examinations.

Learning environment in which teaching and learning should take place is to be comfortable and conducive to both the teachers and students. According to Mezieobi in Akpa (2010) learning environment are things found around man or which surround him and capable of affecting his social development; that is to say, learning environment includes the family, the school, mosque/church and the community. It therefore means that any part of social environment in which man lives ought to affect his social development. According to Zakaria cited in Onu (2013) learning environment connotes a pleasant place in which teaching and learning take place. Learning environment which fails to meet this condition can hardly encourage students to learn effectively. There is no doubt that hereditary plays no small part in mental development. Learning environment that is enriched helps learners social and mental development faster than poor one.

However, the teaching and learning of Economics deserve good environment where there are sufficient and variety of learning materials and equipment such as good library, classroom, sufficient furniture, current books, models, specimen, qualified Economics teachers, attractive school buildings, instructional materials and sound interaction between teachers and students. According to Okpe (2012) learning environment when properly planned and maintained to an extent, helps to promote, maintain physical health and make it easy for effective teaching and learning to take place. It means good learning environment will stimulate Economics students learning abilities thereby improving on their performances.

## **2.10 Empirical Studies**

Some researchers have undertaken similar studies which are related to the current study. Among them are: -

Prince (2006) carried out a research on the relevance of guided-discovery and exposition teaching methods on skill acquisition in teaching Financial Economics in commercial colleges in Anambra State. The objective of the study was to find out the measures of improving students' skill acquisition through effective use of guided discovery and expository teaching in training students. It was also aimed at finding out problems in teaching and learning Economics in commercial colleges in Anambra State. The population consisted of 220 students in Commercial Colleges in Anambra State, and a sample of ninety (90) students was used. Four research questions were raised and four null hypotheses were formulated. Quasi experimental pre-test post-test control group design was adopted for the study. After four weeks (4) of treatments, a test was

conducted and the results were analyzed at the ( $\alpha$ ) alpha level of 0.05, using t-test statistical method. The study revealed that students cram facts and principles, most of which they don't understand, only to regurgitate during examinations. It was concluded that guide-discovery and exposition teaching methods are effective in skill acquisition. Based on the findings, recommendations were made to the government, school authorities, lecturers and students, so students who pass through the department will achieve higher skill acquisition in the subject. Nevertheless, the previous study is related to the present study because of the teaching method used, which is experimental in nature, but different because it emphasizes on skill acquisition rather than academic performance.

Musa (2007) conducted a research work; to determine the effectiveness of Game Simulation and Discovery Method of Teaching on Academic Skills of Economics students in senior secondary schools Economics in Kano State. The objective of the study was to determine the difference in academic skill acquisition between students taught with discovery and those taught with game simulation method. The research adopted the quasi experimental design and the population of the study was five hundred and sixty (560) students from selected senior secondary schools in Kano State. Four research questions were raised and four null hypotheses were formulated. Data through the use of teacher-made test were administered to these students as pre-test and post-test, before and after treatment. The data collected were subjected to the ANCOVA statistical analysis and t-test to determine the level of the significant difference. The result of the findings showed that game simulation and demonstration teaching methods are particularly effective in teaching Economics in Kano State. It was concluded that students learn more

when their interest is stimulated through activity learning. The researcher made some recommendations such as, both methods should be involved in teaching because of the playful attitudes of students will help to transform their nature into a meaningful learning environment. This present study is similar to the past study in the sense that discovery teaching method was also adopted and different because the former used four (4) research objectives, four (4) research questions and four (4) null hypotheses while the current study will use five (5) research objectives, five (5) research questions and five (5) null hypotheses. It is also different in terms of location and area of contents coverage.

Ogebe (2010) conducted a research work to determine the relevance of guided-discovery and peer-teaching methods on students' achievement in Economics in senior secondary schools in Enugu State. The objective of the study was to determine the difference in achievement between students taught with guided-discovery and peer-teaching methods of teaching. The design used in the study was quasi-experimental pre-test post-test control group design with randomization. The population of the study was eight hundred and three (803) students offering Economics in private senior secondary schools in Enugu State. Four research questions were raised and four null hypotheses were formulated. Data through the use of teacher-made test were administered to students as pre-test and post-test treatments. The data collected were subjected to analysis of variance (ANOVA), based on this all the three null hypotheses were rejected. The finding obtained among others was that students in peer-teaching group had a higher mean score than those in the guided-discovery group. It was concluded that demonstration teaching method was more effective than the guided-discovery teaching method in teaching Physics. The researcher made some recommendations which include that, both methods

should be used in teaching because they make students develop principles of observation, inquiry and group work. The present study is similar to the past study in the sense that peer-teaching and guided-discovery teaching methods were used to teach senior secondary school students, but different in terms of the subject taught and the study areas.

Umar (2010) carried out a research on the “comparative analysis of exposition and discovery methods of teaching and learning Economics in senior secondary schools in Kaduna State”. The objective of the study was to determine the level of performance on students pre-test and post-test mean achievement scores in both experimental and control groups. The research was also conducted to determine the level of mean performance in Economics by students taught using both methods. The population of the study consisted of one hundred and eighty-seven (187) senior secondary II Economics students in selected private schools in Zaria metropolis. Four (4) objectives, questions and null hypotheses were formulated to guide the study. There was no significant difference in the mean achievement scores of students taught with the exposition teaching and those taught with discovery teaching method. There was no significant difference in the mean performance scores of male and female students taught with only expository teaching methods. There is no significance difference in the mean performance scores of male and female students taught with only inquiry teaching method), and on the basis of these null hypotheses, data through a validated practical skill competence scale was used to collect data. The data collected from both groups were subjected to the t-test/z-test statistics to determine the significant difference in the mean performance of students in Economics, taught with expository and discovery teaching methods. The null hypotheses were tested at 0.05 probability level using two instruments -Economics Achievement Test

1 (EAT-1) and Economics Evaluation Test 2 (EET-2). The findings of the study revealed that students performed better in the post-test than the pre-test. It was concluded that the pre-test and post-test difference in mean performance of students in Economics was significant. Based on the findings, recommendations were made as to the proper application of learning strategies and theories by teachers in using any type of teaching method, also students should be motivated by their teachers to develop interest in Economics. The study was obviously in line and in agreement with the researcher's work, because it focused on teaching senior secondary school students Economics, but different because it adopted exposition teaching method.

Egaji (2010) carried out a study on effect of peer-teaching and discussion methods on Economics students' academic performance at senior secondary schools in Ondo State. The population of the study comprised of 2,520 Economics students, Class III within Ondo State. SSSIII students were randomly chosen for the study. Four (4) objectives, four (4) research questions were and four (4) null hypotheses were formulated. The research adopted quasi experimental pre-test post-test control group design with randomization. Data were collected and the results were analyzed at the alpha level of 0.05 using t-test/z-test as the main statistical tool. The result showed that the use of peer teaching method in place of conventional method improved student's performance in Economics. It was concluded that peer teaching method is very effective in teaching Economics. This study is related to the previous study because t-test statistic would be used, but different because of the level that was used which was senior secondary three (SSIII) and the number of objectives, research questions and null hypotheses used.

Ayo (2010) carried out a similar study on exposition (lecture) and peer teaching methods of teaching Economics at SS 2 level in two secondary schools in Edo State. The study concentrated on comparative analysis of the two teaching methods with the specific objectives of determining which of the two methods helped the students to perform better. He developed five research questions and hypotheses. The population for the study was 206 students out of which 20 students each were sampled from 2 schools and taught for eight weeks. He conducted pre-test and post-test and concluded that performance in Economics by students taught with the two methods does not necessarily depend on the two types of method of instruction used, rather it depends on the combination of such factors as teachers qualification, teachers skill and strategies. This study is related to the current study being undertaken by this researcher because it would be an attempt to measure effects of methodology on performance. However; it is significantly different in scope and type of methods. In addition the present study will be conducted in public schools rather than private schools and not gender based.

Itodo (2011) carried a research titled the effect of peer teaching and fieldtrip methods on Economics students in of Osun State. The experiment was on the differential of effectiveness of classroom goal structures using 215 students who were randomly assigned to treatment conditions. They were assigned to work in groups based on sex and capability. The researcher collected data through Economics Achievement Test (EAT). Tests were given to the students as pre-test and post-test after treatment. The analysis of data by statistical tools such as means, standard deviations, covariance revealed that the task itself, its familiarity or unfamiliarity influenced performance. Gender of student was not a factor responsible for performance. The researcher noted that the sampling

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

Owoicho (2012) carried out a study on effect of peer teaching and discussion methods on Economics students' academic performance in senior secondary schools in Abia State. The study tested the gender variables in learning Economics and secondly to determine the more effective method of teaching Economics at this level. The study was carried out using only six senior secondary schools, a coeducational school in Bendel Local Government Area and Umuahia Local Government Area of Abia State. The population for the study was 360 and 660 from selected school in Bendel and Umuahia respectively. 30 students each were used as sample from both Local Government Areas. The researcher formulated five research questions and null hypotheses. The researcher taught four lessons which lasted for 45 minutes in each school. He administered pre-test and post-test and used percentage to analyze the mean score of the tests. The t-test statistic was also used to test the relative performance of the two means at 0.05 levels of significance. The result showed that female students taught by discussion method in Economics performed better than male students taught by peer teaching method. The study is related to this present study in the sense that the sample are drawn from six schools as the present study intends to do but different because it would cover three senatorial zones in Benue State at senior secondary schools where students prepare for WASSCE and NECO examinations. Secondly, it was based on gender variable while the current study would not be based on gender.



Onoja (2012) carried out a study on effect of discovery and demonstration methods of teaching on the academic performance of Economics students in Osun State, Nigeria. The total population for this study was 2,562 of Economics students in Government secondary schools. The sampling technique used was random sample in which 214 was arrived at as the sample size. The researcher formulated seven research objectives, questions and hypotheses. The instrument used for the study was the Economics Intelligent Test (EIT) designed by the researcher. The hypotheses were tested at 0.05 levels of significance. The data were analyzed using t-test and ANOVA statistical tools. The result shown among others that there was a significant difference between the pre-test and achievement mean scores of students in the experimental and control groups. Based on the findings, it was found that discovery method of teaching enhances students' performance in Economics followed by demonstration method while the conventional method makes the teaching and learning of Economics uninteresting. A study conducted by Onoja (2012), revealed similarities and differences from the present study that would be carried out. The former dwelt on effect of discovery and demonstration methods of teaching on Economics students' academic performance in Osun State, Nigeria while the present study is on effect of peer teaching and discovery methods of teaching on academic performance of Economics in Benue State, Nigeria. The study adopted quasi-experimental design, t-test, and ANOVA was used for hypotheses testing. The present study would also, adopts quasi-experimental design, t-test and ANOVA to test the five hypotheses for the study. The major differences between the study and the present study are that the former is on Economics students Class III while the present study is on Economics students Class II, the former study has seven research questions and

hypotheses while the present study would have five research questions and hypotheses, the instrument used in the former study for data collection was Economics Intelligent Test (EIT) while the present study would use Economics Performance Test (EPT) for data collection.

Ogbonene (2012) carried out a research on effect of peer-teaching and problem-solving on senior secondary school students' performance in Economics in Edo State. The objective of the study was to determine the effect of peer teaching and problem-solving on senior secondary school student's performance in Economics in Edo State. The population of the study was all senior secondary schools Economics students, class III which was 12,821 and the sample size was 220. Seven (7) research objectives, seven research questions and seven null hypotheses were formulated to guide the study. The instrument used in collecting data was Standardized Economics Achievement Test (SEAT). Data collected from the study was statistically analyzed using mean, standard error and standard deviation for the research questions, and the null hypotheses were tested using independent t-test at 0.05 level of significance. One of the findings revealed that there was significant difference between the mean performances of students taught Economics using peer-teaching than those using conventional method, it was concluded that peer-teaching method was the most effective method in teaching Economics in senior secondary schools in Edo State. It was recommended among other things that teachers should help students along the road to independent learning. The previous study is similar to the present study because it makes use of independent t-test in analyzing the data and one of variables (peer teaching), but different because of the level which was senior secondary schools used, and the location of the study.

Oyifie (2013) also carried out an empirical study on effect of demonstration method, electronic media and peer teaching methods on students' interest in Economics education in Enugu, Enugu State. The purpose of the study was to determine effect of discovery, electronic media and peer-teaching methods on student's interest in Economics among senior secondary school II (SS II) students. A population of 240 students was used in the research. Five (5) null hypotheses were formulated and Solomon's three group design was adopted in testing the mean interest scores in the three methods used at 95% confidence level. The result showed that both discovery method and electronic media enhance learners' interest in Economics. They reported that discovery method was found to be more effective in providing students' interest in Economics than the use of electronic media and that a non-significant difference existed between the mean interest scores of male and female Economics students taught with either discovery method and also those taught using electronic media. Although his work is commendable for revealing that discovery method created more interest in the students than the rest two methods, the researcher did not show specific variables that made other methods less effective. Oyifie (2013) study is similar to the present study because both of them are on investigation of the effectiveness of teaching methods in Economics. Both studies did not adopt control but only compared the methods of teaching. They are also similar because the current study is on peer-teaching and discovery methods of teaching and would also be carried out at the senior secondary school level. The differences in the two studies are: the location and the duration of the experiment.

Ajogi (2013) studied on effect peer teaching and project methods of teaching on the academic performance of Economics students in senior secondary schools in Oyo

State, Nigeria. The total population for the study consisted of all senior secondary schools, students II offering Economics. Simple random sampling technique was used to obtain a sample size of 220 out of the total population of 2306. The instrument used for the study is the Economics Achievement Test (EAT) designed by the researcher. Eight (8) research questions and eight (8) hypotheses were formulated and tested at 0.05 levels of significance. The data were analyzed using t-test and ANOVA statistical tools. The result shown among other that there was a significant difference between the pre-test and achievements mean scores of students in the experimental and control groups. Based on the findings, it was concluded among other things that peer teaching method was better than project and conventional methods of teaching Economics in senior secondary schools in Oyo State. The commonness of this study to the present study is that, the former study adopted quasi-experimental design, t-test, and ANOVA was used for hypotheses testing which would be also used in the present study. Despite these similarities, the former study is different from the current study in the sense that the former study was carried out in Oyo State while the present study intend to be carried out in Benue State. The former study has eight (8) objectives, eight (8) research questions and eight (8) null hypotheses while the current study will use five (5) objectives, five (5) research questions and five (5) null hypotheses.

Adeka (2014) conducted a study on effect of discovery, peer-teaching and project teaching methods on the academic performance of Economics students in senior secondary schools in Kogi State. He formulated four (4) objectives, four (4) research questions and four (4) null hypotheses to carry out the study. The population for the study was three hundred and twenty (320) Economics students from the educational zone.

Quasi-experimental design was used for the study. He developed pre-test and post-test instruments for data collection and used eight (8) weeks for the study and the results generated were tested using t-test and one-way analysis of variance (ANOVA) statistics to test the mean differences at 0.05% level of significance. The findings revealed that the three teaching methods studied were effective in teaching students various Economics concepts, discovery teaching method was the most effective followed by peer teaching method and project being the least effective. The similarities of the two studies are that; both of them investigate effectiveness of teaching methods. The methodology adopted are the same in data gathering because both use pre-test and post-test, the present study intend to use t-test statistic to test level of significance at 0.05%. However, they are significantly different in terms of number of objectives, research questions, null hypotheses stated, location of the study. Again he investigated three (3) teaching methods while the present study is focusing on only two methods and in different States within Nigeria.

Onuh (2014) conducted a research work titled effect of discovery and demonstration methods of teaching on Economics students' academic performance in senior secondary schools in Benue State, Nigeria. The intent of this study was to enable the researcher, who is a major stakeholder in the education industry, to find out of what relevance are these methods of teaching would be on the academic achievement of Economics students. Stratified random sampling technique was adopted in this study to select 206 students as sample size out the total population of 2,462 of Economics students from Government owned senior secondary schools within the study area. The instrument used for the study is the Economics Intelligent Test (EIT) designed by the researcher. Six

research questions and hypotheses were formulated in line with the research objectives. The hypotheses were tested at 0.05 levels of significance. The data collected were analyzed using t-test and ANOVA statistical tools. Quasi experimental design was used for the study. The result indicated among others that there was a significant difference between the pre-test and achievement mean scores of students in the experimental and control groups. It was concluded among other things that discovery method of teaching is the best method of teaching Economics in the senior secondary schools within the study area. The similarities of the previous study to the present study, is that, both studies adopted quasi-experimental design, t-test to answer the research questions. Despite these similarities, the two studies differ as the former study was conducted with six research questions and hypotheses, while the present study would use five research questions and hypotheses. Also, the former study adopted ANOVA as a statistics tool to test the stated hypotheses, the present study would use ANCOVA. The instrument used for data collection in the former study was Economics Intelligent Test (EIT) while the present study would use Economics Performance Test (EPT). Also, the former study was conducted on senior secondary school, students III while the present study would be carried out on senior secondary schools, students II.

Atah (2014) carried out a research on the topic: effect of peer-teaching, discovery and demonstration methods of teaching on Economics students' academic achievement in senior secondary schools in Otukpo Local Government and Okpokwu Local Government Areas of Benue State. A quasi-experiment, non-equivalent group design was adopted. The purpose of the study was to determine the relative effectiveness of peer-teaching, discovery and demonstration methods of teaching on Economics students' cognitive

achievements. A purposeful sampling technique was used to choose three SS II intact classes for experiment 1, experiment 2, and control respectively. The population of the study was 3,105 students while the sample size was 180 Economics students. Six research objectives, six research questions and six null hypotheses were formulated to guide the study. Two instruments – Economics Achievement Test (EAT) and Interest Scale on Economics Test (ISET) were used for data collection. The study is similar to the previous study because it adopted quasi-experimental, two of the major variables (peer teaching and discovery) are the same, the same class level and the same State which the present study intends to use and different in area of number of teaching methods involved number of research objectives, research questions, null hypotheses and only two Local Government Areas were used but the current study intends to use only two methods of teaching, five research objectives, five research questions, five null hypotheses and the whole State.

Umoro (2015) carried out a study on effect of project and discovery methods of teaching on students' performance in Economics in Benue State, Nigeria. The population for the study consisted of all Economics students in senior secondary schools in Benue State, Students Class III which is 3,416 while simple random sampling was used to select 40 students each from six secondary schools within the study area. The sample size of 230 was used for the study. The instrument used for the study is the Economics Achievement Test (EAT) designed by the researcher. Seven (7) objectives, seven (7) research questions and seven (7) null hypotheses were formulated and tested at 0.05 levels of significance. The data were analyzed using t-test and ANOVA statistical tools. The result indicated among others that there was a significant difference between the pre-

test and achievement mean scores of students in the experimental and control groups. Based on the findings, it was concluded that discovery method was better than the traditional method in improving performance in Economics. The study conducted by Umoro is similar to the present study in many ways, the studies adopted quasi-experimental design, t-test, ANOVA was used for hypotheses testing which would be used in this study and the study area for both studies is same. Despite these similarities, the two studies differ as the study was conducted with seven (7) objectives, seven (7) research questions and seven (7) null hypotheses while the present study would be carried out with five (5) objectives, five (5) research questions and five (5) null hypotheses. The instrument used for data collection was Economics Achievement Test (EAT) which is different from the instrument that would be used for data collection in the present study in the area of contents selection. Also, dissimilarity exists in the sense that, the study used the senior secondary school Class III students as respondents while the present study would use the senior secondary school Class II students as respondents.

## **2.11 Summary**

This chapter discussed extensively on the review of literature relating to effect of peer teaching and discovery methods of teaching on the academic performance of Economics students in Benue State, Nigeria. Several literature materials would be examined on the Economics Education curriculum in Nigeria and concept of Economics, importance of Economics education in the economy, concept of teaching and teaching methods, concept learning and learning styles, factors affecting learning, concept of performance and factors affecting teaching and learning of Economics, peer teaching and discovery methods of teaching Economics in senior secondary school. As far as teaching



and learning is concerned the teacher is the major factor. The role of the teacher in the learning process can be likened to the role of a driver of a vehicle or a pilot of an airplane in the transport sector. The goal of the whole education industry and the society in general cannot be achieved without the teacher. So, the onus of making children to learn and understand, discover their talents and abilities, perform academic tasks as required, inculcate societal values and culture rests squarely on the teacher.

It has been proved beyond reasonable doubts through studies that where appropriate methods of instruction have been effectively used to teach students they learn and perform well. Where students cannot perform we can safely conclude that learning did not take place. The two methods of teaching discussed in this research work namely, guided discovery and peer teaching methods are methods that emphasized varying degrees of participation by the learners. Method that involves participation by the learner encourages and appeals to cognitive, affective and psychomotor domains of learning and are, therefore learner centered. Economics being a skill subject not only require learner centered approaches to teaching it, but demands understanding of each step in the presentation of the lessons for comprehending the whole topic in a given part of the subject. This is what makes a particular method a key to learning. The theoretical framework of the study would be based on learning theory of Jean Piaget theory of cognitive development, John Dewey theory of constructivism and Gagne theory of instruction.

The gaps filled at the end of this study were those found from other reviewed empirical studies which may include:

Other gaps that would be expected to be filled relates to availability of learning facilities and resources such as adequate classrooms, equipment, textbooks, libraries and laboratories in schools and the learning environment in general; and time planning/management in both lesson delivery and other skills required by SSII Economics students in writing examinations. This is because students' performance (good performance or poor performance) is the only yardstick for measuring impact of any teaching method. Time management deserves serious attention owing to the fact that in class work and examinations students are expected to do a lot of calculations and reasoning in a relatively short time. This study would address this gap during the experiment by timing students strictly during the pre-test and post-test that would be administered.

## **CHAPTER THREE**

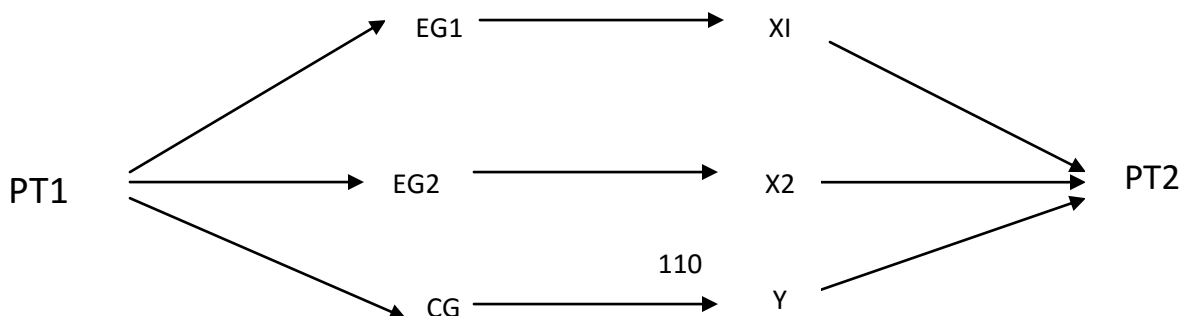
### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter discussed the methodology by which the study was carried out in the study area. In view of this, the following sub-headings weretherefore examined: research design, population, sample and sampling techniques, research instrument, validity of the instrument, pilot study; reliability of instrument, procedure for data collection and procedure for data analysis.

### 3.2 Research Design

The study adopted quasi-experimental research design for this study with pre-test, post-test and control group. The reason for the adoption of this design is hinged on the fact that intact classes will be assigned to experimental and control groups respectively. The choice of this design was based on the fact that the study was to find out the effect of peer-teaching and discovery method on students' academic performance which requires having two different experimental groups which were exposed to treatment and two control groups which received placebo treatment. Also, the design will allow for the manipulation of the independent variables (peer-teaching and discovery method) in order to determine their effect on the dependent variables (which in this case is student test performance in Economics). The students were assigned to two (2) experimental groups and two (2) control groups. The experimental groups were taught some Economics concepts using peer-teaching and discovery method respectively, while the control groups were taught using conventional method. According to Olayiwola (2007) in quasi-experimental design, intact samples in their natural setting like classrooms are used. A measurement of dependent variables is made both before and after treatment conditions. The difference in scores of pre-test and post-test of these naturally assembled groups were calculated and compared. The variables in each phase were shown in the research design in figure 1 below:



### **Figure 1: Research Design**

However, the symbols are coded as follows:

RD: Research Design

CG: Control Group (Conventional Method)

EG1: Experimental Group 1 (Peer-Teaching Method)

EG2: Experimental Group 2 (Guided Discovery Teaching Method)

X1: Treatment Using Peer-Teaching Method

X2: Treatment Using Guided Discovery Method

Y: False Treatment

PT1: Pre-Test

PT2: Post-Test

The research design shows that students in both group (peer-teaching and guided discovery) and the control group (lecture method) were exposed to pre-test using the Economics Performance Test (EPT 1) before those in experimental groups were given treatments. Consequently, the EPT 1 were re-organized and administered as post-test on both the experimental and the control group in their various schools.

### **3.3 Population**

The population for the study was all Senior Secondary Schools (SSS II) Economics students which were 5,458 from the entire 64 Government senior secondary schools in

Benue State, Nigeria. The choice for this students was because they were not preparing for any terminal examination.

### **3.4 Sample and Sampling Technique**

The sample size of this study was drawn from four (4) purposefully selected public senior secondary schools offering Economics in the educational zone in Benue State, Nigeria. Idoko (2014) asserted that sample is a portion out of the population that the researcher wants to use for his or her research work for the purpose of data collection. For the purpose of this study therefore, the sample size for the study consisted of four intact classes of four hundred and fourteen (214) which was 5.8% of the population of SSII Economics students from Government secondary school, Torkula; Government secondary school, Alaide; Government secondary school, Ushongo and Government secondary school, Orokam. Benue State is divided into three (3) senatorial zones – A, B, and C. Hence, two schools were sampled for experimental and two schools for control groups from the three (3) senatorial zones. Using purposive sampling technique based on the information shown on below Table 1, this according to Gay cited in Ogbe (2013), is the most suitable sample size because beyond a certain point, population size is almost irrelevant and the sample size is therefore recommended. Also, Krejcie and Morgan in Abu (2015), in support of the selected sample size; recommended that for a population figure between the range of 15,000 to 20,000 which 13,874 falls within, a sample size of 214 should be used. However, because of the above statements credited to Gay, Krejcie and Morgan, the researcher is believed to be adequately guided by the choice of sample size selected for this study. In confirmation of the above, Gay, Mills and Airasian cited in Eleche (2016), were in full support that samples should be as large as possible, in general,

the larger the sample, the more representative it is likely to be, and samples into control and experimental groups is presented in Table 1:

**Table 1: Sample for the Study**

Group	School	Urban	Rural	Students	Male	Female	Status
A.	GSS Torkula	Urban	-	52	25	27	Experimental Group
B.	GSS Ushongo	-	Rural	53	23	30	Experimental Group
C.	GSS Alaide	Urban	-	54	26	28	Control Group
D.	GSS Orokam	-	Rural	55	24	31	Control Group
TOTAL							214

**Source: Researcher’s adopted sample table (2018).**

### **Determination of Homogeneity of Sample**

The homogeneity of samples were determined by considering the fact that the students share the same characteristics like school type (co-educational), admission requirements, they were exposed to the same curriculum and syllabus for teaching Economics, use the same Economics textbook, taught by trained and experienced Economics teachers. In the same vein, the schools have adequate teaching facilities, instructional materials and were located in the same environment.

### **3.5 Instrumentation**

The test instruments covered various areas treated in the various instructional plans. According to Olaofe in Adeka (2014), every research work requires either one form or combination of instruments in one or another for the purpose of obtaining information required for testing hypotheses and answering research questions. It is for this reason, that this study adopted the use of multiple choice assessment tests tagged “Economics Performance Test (EPT)”. After due consultation with Economics teachers

(research assistants) from the four (4) schools in Benue State, topics like (a) production (b) population and (c) budget (d) division of labour among others were chosen for the study from SSII Economics curriculum when the study was conducted.

Two tests were developed for the purpose of data collection for the study. First one was Economics Performance Test 1 (EPT-1) which was used as pre-test and Economics Performance Test 2 (EPT-2) which was used as post-test. The objective questions of the two tests were developed based on the SSII Economics syllables with reference to WASSCE and NECO past question papers to ensure standard. The Economics Performance Test 1 was made up of objectives (with options from a – e) to enable the researcher assess the level of understanding the students have of the part of the syllables covered before and after treatment. The area of the syllabus that was chosen for the study was first term SSII Economics curriculum during which the study was carried out. Also, the researcher prepared lesson plan, items for peer-teaching, discovery activity and constituent multiple-choice assessment tests and this was the Economics Performance Test-2. The instrument consisted of fifty (50) multiple-choice performance test based on the concept taught from the first term SSII Economics syllabus. The tests were designed to determine the academic performance of the students considered as the sample. All the instruments were attached in Appendix.

### **3.5.1 Validity of the Instrument**

According to Kajang, David and Jatau in Abutu (2016), describe validity as the accuracy with which the researcher's instrument measures what it intends to measure. The content validity of the instrument was established from WASSCE and NECO standardized promotion examinations and usage of peer-teaching and discovery

instruction in the contents of the curriculum. The instrument was scrutinized by experts. To establish the validity of the instrument therefore, the researcher designed fifty (50) objective questions items: Economics Performance Test 1 (pre-test) was given to the researcher's supervisors in the Department of Educational Foundations and Curriculum, Faculty of Education, Ahmadu Bello University, Zaria and experts in the field of Measurement and Evaluation in Ahmadu Bello University, Zaria. To vet for; face and content validity. They were expected to scrutinize the instruments with a view to identify items that were not required and or suggest relevant ones that are necessary for inclusion into the research instrument(s). It was also to identify and correct ambiguous statement in the research instrument(s) and proffer possible suggestions that are important for the final draft of the instrument(s). Comments that were made by the experts were considered satisfactory and a welcome development useful in this study. Also, corrections were strictly adhere-to, and item reconstructed. In supporting this, Kerlinger cited in Okloho (2014), agreed that content validation of research instruments by experts is an acceptable type of validation.

### **3.5.2 Pilot Study**

A pilot study was conducted in Government secondary school, Atlo, Ohimini Local Government Area and Government secondary school Ede-Okpoga, Okpokwu Local Government Area all in Benue State. Weimmer and Dominick cited in Ochai (2016) concurred that a pilot study should be conducted before the main study to pilot test the instruments and ensure that possible ambiguity that may be found in the study is removed. Also, according to Umar (2015), opined that the use of pilot study is the best way to validate instruments for data collection. In view of this, the researcher used SSII



Economics students of the above mentioned schools which are not parts of the sampled schools for the study so that they will not be familiar with the instrument(s) before-hand. Forty (40) Economics students from each of the schools were used for the pilot study. The researcher used peer teaching and discovery methods. The lessons for the methods were developed based on the following topics: production, factors of production, cost of production, theory of costs, division of labour and budget. The two groups were given the instrument (pre-test) for two days. Thus, attention was focused on the experimental group by giving them treatment using peer-teaching and discovery methods for two weeks having a period of forty (40) minutes per day. At the end of the weeks, post-test was administered to the two groups for two days as in the case of pre-test. The responses from the two groups on the two tests were marked by researcher. The data gathered from the two different tests were analyzed using t-test statistics which was employed purposely because of the fact that, it was found to be more appropriate in order to determine the significant difference between two mean scores of the group. The value of Pearson product moment correlation coefficient was found at 0.79 and 0.77 which gave a reliability of 0.87 for the instrument respectively.

### **3.5.3 Reliability of the Instrument**

The data that were collected from the pilot study were subjected to reliability test using test-retest method and analyzed with spearman-brown formula co-efficient of correlation statistics aided by Statistical Package for Social Science (SPSS). Test-retest reliability method according to Sambo cited in Oche (2016) exists in a situation whereby a test instrument administered to group of students now and the same test is given to the same group of students at another time. The reliability of the instrument is to ascertain the

consistency of the instrument administered. In testing the reliability of the instrument, the researcher's made test was administered to group of 40 Economics students; the same draft of instrument was re-arranged and re-administered to the same group of students after two weeks. The first and second tests scores were used to calculate the correlation co-efficient using the Pearson product moment correlation co-efficient (PPMC). The two sets of scores that were obtained were subjected to spearman- brown formula which indicated the reliability index of 0.87. A correlation of 0.87 was found to be significant; thus, justified to be an index of a relationship between the two tests. This reliability co-efficient was considered adequate for the internal consistency of the instrument. This was a confirmation of test of reliability which according to Oche (2016) an instrument is considered reliable if it lies between 0 and 1, and that the closer the calculated co-efficient is to zero, the less reliable is the instrument, and the closer the calculated reliability co-efficient is to 1, the more reliable is the instrument. This therefore, confirms the reliability of the data collection instrument used as fit for the main study.

### **3.5.4 Treatment Procedure**

The treatment procedure used for this study was presented in stages. The stages are:

**Stage One:** Letter of introduction was collected from the Department of Educational Foundations and Curriculum, Faculty of Education, Ahmadu Bello University, Zaria. This was to enable the researcher to have access to the various schools used for the study.

**StageTwo:** Pre-test was administered to the four (4) groups. They were experimental groups 1, 2 and control groups 1 and 2.

**Stage Three:** Students in experimental group 1 were taught the concept of population using peer-teaching while students in the control group 1 were taught the concept of population using conventional method of instruction.

**Stage Four:** Students in experimental group 2 were taught the concept of production using discovery method of instruction while students in the control group 2 were taught the concept of production using conventional method of instruction.

**Stage Five:** Students in experimental group 1 were taught the concept of division of labour using peer-teaching method of instruction while students in the control group 1 were taught the concept of division of labour using the conventional method of instruction.

**Stage Six:** Students in experimental group 2 were taught the concept of theory of cost using discovery method of teaching while students in the control group 2 were taught the concept of theory of cost using convention method of instruction.

**Stage Seven:** Students in experimental group 1 were taught the concept of budget using discovery method of instruction while students in the control group 1 were taught the concept of budget using conventional method of instruction.

**Stage Eight:** Students in experimental group 2 were taught uses of budget surplus using peer-teaching and discovery methods of instruction while students in control group 2 will be taught uses of budget using conventional method of instruction.

**Stage Nine:** Post-test was administered to the four (4) groups, that is, experimental groups 1 and 2 and control groups 1 and 2 respectively.

## Treatment Plan for the Groups

The treatment plan for the groups is presented in Table 2:

**Table 2: Treatment Plan of the Groups**

S/N	Group	Topic	Week	Period	Time
1	Exp. Group 1	Concept of population	1 <sup>st</sup>	Single	40 Minutes
2	Cntrl Group 1	Concept of Population	1 <sup>st</sup>	Single	40 Minutes
3	Exp. Group 2	Concept of Population	2 <sup>nd</sup>	Single	40 Minutes
4	Cntrl Group 2	Concept of Population	2 <sup>nd</sup>	Single	40 Minutes
5	Exp. Group 1	Types of Production	3 <sup>rd</sup>	Single	40 Minutes
6	Cntrl Group 1	Types of production	3 <sup>rd</sup>	Single	40 Minutes
7	Exp. Group 2	Concept of Theory of cost	4 <sup>th</sup>	Single	40 Minutes
8	Cntrl Group 2	Concept of Theory of cost	4 <sup>th</sup>	Single	40 Minutes
9	Exp. Group 1	Concept of Division of labour	5 <sup>th</sup>	Single	40 Minutes
10	Cntrl Group 1	Concept of division of labour	5 <sup>th</sup>	Single	40 Minutes
11	Exp. Group 2	Concept of budget	6 <sup>th</sup>	Single	40 Minutes
12	Cntrl Group 2	Concept of budget	6 <sup>th</sup>	Single	40 Minutes
13	Exp. Group 1	Uses of budget	7 <sup>th</sup>	Single	40 Minutes
14	Cntrl Group 1	Uses of budget	8 <sup>th</sup>	Single	40 Minutes
15	Experimental Cntrl Group2	Test			
16	Experimental and Cntrl Group 1	Test			

**Key: *cntrl* = control and *exp* = experiment**

The treatment plan for experimental group would be step by step teaching activities where Economics students would be taught using peer-teaching and guided discovery methods for the periods of eight (8) weeks. Students in peer-teaching method would be taught using in- class activities. The Economics teacher would clearly define the activity and assign topics to some intelligent students that are to teach in the groups. A teacher in the discovery method would assign various groups of students to the right source to consult and discover the concept in relation to their assigned activities. This would be done with a guide from the teacher.

### 3.6 Procedure for Data Collection

In an attempt to conduct this study, a letter of introduction was collected from the researcher's Department of Educational Foundations and Curriculum, Ahmadu Bello University, Zaria to the respective schools to request for their approval and permission to conduct the study on the respondents; who constitute their students. In view of the hectic and tedious nature of this work, the researcher employed research assistants (that is teacher) in each of the selected schools who were trained on modalities to administer the instrument and retrieve same from the respondents back to the researcher. The need for research assistant was to ensure maximum cooperation among the participating staff as well as for high rate of return (Mokobia and Okeye, 2011).

In order not to disrupt normal school programme, the researcher and the research assistants used normal time allocated for teaching Economics in each of the sampled schools which is 40 minutes per lesson twice a week. Before the commencement of the treatment, the Economics Performance Test 1 (EPT1) was administered to all groups as pre-test in order to determine the level of academic equivalence of the students. The experimental group was divided into two (2) groups (experimental group I and II). Experiment I was taught concept of population using peer-teaching method while experiment II was taught concept of production using discovery method. Experiment I was taught concept of division of labour using peer-teaching and discovery methods. The control groups I and II on the other hand were taught these concepts using conventional method of teaching. The normal time of 40 minutes was maintained per lesson.

The data for the study were collected through the administration of pre-test and post-test to the respondents with the assistance of four (4) research assistants that were adequately trained by the researcher for a week in the sampled schools to administer the Economics

Performance Test II (EPTII) as post-test at the end of the treatment to both the experimental and control groups. To reduce the effect of influence and familiarity, the researcher marked and scored the post-test treatment for all the groups using the marking scheme guide prepared by the researcher. The researcher had casual verbal interactions with all the students concerned after which Economics Performance Test (EPT1 pre-test) was administered to them. However, the total number of the students who passed the pre-test in the sampled schools was used for the experiment.

### **3.6.1 Treatment of the Experimental Groups**

The treatment of the experimental groups was in two stages. That is, treatment of experimental groups I and II at the two different senior secondary schools. The researcher incorporated regular Economics teachers in the sampled schools as research assistants. Secondly, all the research assistants were educated and trained on how the research was to be like and what was expected of them to do. Therefore, the research assistants introduced the researcher to the students and then the researcher administered the pre-test on all the groups. The treatments of the experimental groups begin on the first week after the administration of the instrument as pre-test on all the groups. The experiment and administration of the instruments lasted for eight (8) weeks. Subsequently, in order to measure the initial and terminal on academic performance of the students, the researcher administered post-test at the end of the treatment to the experimental groups. So, twenty-four (24) instructional plans were developed on the various topics covered and attached to the appendix respectively.

### **3.6.2 Control of Extraneous Variables**

The term extraneous variable refers to any other factor that might intervene with the treatment effect on the dependent variable. There is always a need for the researcher to identify intervening variables in the study and most importantly, how these variables can be controlled. The following were the intervening variables that were considered as threat to internal validity in experimental research design (Ameh, 2014). These factors and the measures took to control each of them in this study were discussed as:

- i) Effect of testing: the subjects might become test wise and try to discover the distinguished purpose of the test. The researcher will be able to reduce this threat by restructuring the items of the pre-test before post-test administration.
- ii) Sexual composition: this refers to limiting an experiment to only one category of a variable (i.e. sex). Rather, a more practical instructional method is to show that the groups are equal and equivalent as possible on possible confounding variables. When groups are different in terms of sexual composition, it is therefore possible that the differences observed in achievement could stem from differences in sexual composition. This threat will be eliminated by ensuring that sex does not vary between the groups. All the groups will be composed exclusively of males and females. Also, all the groups will be exactly equal in terms of the sex of students' participants.
- iii) Experimental morality: this refers to the loss of subjects during the life of the experiment. This will be controlled through assigning more students to the groups than required. All the extra students will be dropped after the treatment and before the post-test.

- iv) Subject's interaction: this refers to the interaction of the differences in the experimental and control groups which may account for the differences in the results observed. This threat will be controlled by using different schools for experimental groups and completely different schools for control groups.

### **3.7 Procedure for Data Analysis**

The data collected for this study were analyzed using various statistical tools. The demographic data of the respondents were analyzed using frequency count and simple percentage while mean and standard deviation were used to answer the research questions. While at the inferential statistics level, significant variations in measures from all the test groups were analyzed using independent sample pair t-test to test hypotheses one to five and analysis of variance (ANOVA) was used to test hypothesis six. Pair t-test was considered in this study because it is one of the inferential statistical tools which can determine whether or not there exists significant difference between the means of two or more independent (unrelated) samples on a dependent variable (Omede, 2014). However, the null hypotheses advanced for this study were to be retained or rejected at an alpha level of 0.05 significance.



**CHAPTER FOUR**  
**DATA PRESENTATION AND ANALYSIS**

**4.1 Introduction**

In this chapter, the researcher presented the statistical analyses and interpretations of the results on effects of peer-teaching and discovery method of teaching Economics in senior secondary schools in Benue State, Nigeria. The chapter consisted of an analysis of the demographic characteristics of the respondents and their performance which were analyzed along the study's objectives, research questions and hypotheses.

**4.2 Description of the Study Variables**

Two hundred and fourteen (214) Economics students SS II were selected from four senior secondary schools across the three Senatorial Zones (A, B and C) of Benue State for the study. These variables were grouped into experimental I, II and control I and II. This can be presented in frequency and percentage of the students categorized into experimental and control groups.

**Table 3: Presents the frequency and percentage of the groups**

<b>Group</b>	<b>Frequency</b>	<b>Percentage</b>
Experimental I	52	24.29
Experimental II	53	24.78
Control I	54	25.23
Control II	55	25.70
<b>Total</b>	<b>214</b>	<b>100</b>

Table 3 showed that experimental I 52 (24.29%) were exposed to peer-teaching method, experimental II 53 (24.78%) were exposed to discovery method of teaching, control group I 54 (25.23%) were exposed to conventional method of teaching and control group II 55 (25.70%) were exposed to conventional method of teaching. This distribution shows the total number of students in each experimental and control groups with their corresponding percentages.

**Table 4: Presents the frequency and percentage of gender**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage (%)</b>
Male	103	48.13
Female	111	51.87
<b>Total</b>	<b>214</b>	<b>100</b>

Table 4 shows the gender frequency and their percentages. Male has the frequency of 103 with 48.13 as percentage while their female counterpart has the frequency of 111 with 51.87 as percentage. This implies that female were more than male in the study.

### **4.3 Response to Research Questions**

The various research questions raised were answered using responses to research questions. The mean and standard deviation were used in responding to research questions as follows:

**Research Question One:** What is the effect of peer-teaching method on the performance of students taught Economics in senior secondary schools in Benue State, Nigeria?

In order to answer this research question, the data obtained through the administration of Economics Performance Test (EPT) was analyzed using mean and standard deviation. The summary of the analysis is presented in Table 5:

**Table 5: Pre-test and post-test performance of students taught Economics using Peer-Teaching**

Source	N	Mean	SD	Mean Difference
Pre-test	52	7.321	3.341	
Post-test	52	16.58	4.715	9.259

Table 5 showed the mean score of 16.58 with standard deviation of 4.715 from students taught Economics using peer-teaching method after treatment, while the students' pre-test mean score was 7.32 with standard deviation of 3.341 and their mean difference was 9.259. This result shows that the students taught Economics using peer teaching have better mean score after treatment in senior secondary schools in Benue State.

**Research Question Two:** What is the effect of discovery method of teaching on the performance of students taught Economics in senior secondary schools in Benue State, Nigeria?

In order to answer research question two, the data obtained through the administration of Economics Performance Test (EPT) were analyzed using mean and standard deviation. The summary of the analysis of data collected in the study is presented in Table 6.

**Table 6: Pre-test and post-test performance of students taught Economics using Discovery Method of Teaching**

Source	N	Mean	SD	Mean Difference
Pre-test	53	7.85	1.673	
				10.46
Post-test	53	18.31	5.324	

Table 6 showed the pre-test mean score of 7.85 with standard deviation of 1.673 while the post-test mean score was 18.31 with standard deviation of 5.324 taught Economics using discovery method of teaching. This result shows that the students taught Economics using discovery method of teaching have better mean score after the treatment in senior secondary schools in Benue State.

**Research Question 3:** What is the difference in the performance of students taught concept of division of labour using peer-teaching method and those taught using conventional method of teaching in senior secondary schools in Benue State, Nigeria?

In order to answer research question 3, the data collected from the post-test administered on students was analyzed using mean and standard deviation. The summary of the analysis is presented in Table 7.

**Table 7: Performances of students taught concepts of Division of Labour, using Peer-Teaching Method and those taught using Conventional Method**

Method	Pre-test Scores			Mean Diff.	Post-test Scores		Mean Diff.
	N	Mean	SD		Mean	SD	
Peer-Teaching	52	24.450	4.361	0.13	56.568	5.351	
							11.26
Conventional	55	24.231	2.031		45.146	7.056	

Table 7 showed the pre-test mean score of 24.450; standard deviation of 4.361 with mean difference of 0.13 and the post-test mean score was 56.568; standard deviation of 5.351 and the mean difference of 11.26 taught Economics using peer-teaching method while conventional method has the pre-test mean score of 24.231; standard deviation 2.031 and the mean difference of 0.13 and the post-test mean score was 45.146; standard deviation of 7.056 with the mean difference of 11.26. This result shows that the students taught Economics using peer-teaching method have better mean score after the treatment in senior secondary schools in Benue State.

**Research Question 4:** What is the difference in the performance of students taught the concepts of production using discovery method of teaching and those taught using conventional method of teaching in senior secondary schools in Benue State, Nigeria.

In order to answer this research question, the data obtained through the administration of Economics Performance Test (EPT) were analyzed using mean and standard deviation. The summary of the analysis of the data collected in the study is presented in Table 8.

**Table 8: Performance of students taught the concepts of Population, using Discovery Method of Teaching and Conventional Method in senior secondary schools in Benue State**

Pre-test Scores		Mean	Post-test Scores		Mean		
Method	N	Mean	SD	Diff.	Mean	SD	Diff.
Discovery	53	11.74	2.416		63.135	5.770	
				6.22			13.37
Conventional	55	5.52	2.675		49.765	6.654	

Table 8 showed the pre-test mean score of 11.74; standard deviation of 2.416 with mean difference of 6.22 and the post-test mean score was 63.135; standard deviation of

5.770 and the mean difference of 13.37 taught concepts of population using discovery method of teaching while conventional method has the pre-test mean score of 5.52; standard deviation 2.675 and the mean difference of 6.22 and the post-test mean score was 49.765; standard deviation of 6.654 with the mean difference of 13.37. This result shows that the students taught concepts of population using discovery method of teaching have better mean score after the treatment in senior secondary schools in Benue State.

**Research Question 5:** What is the difference in the performance of students taught concepts of budget using discovery method of teaching and those taught concepts of budget using conventional method of teaching differ in senior secondary schools in Benue State, Nigeria?

In order to answer this research question, the data obtained through the administration of Economics Performance Test (EPT) were analyzed using mean and standard deviation. The summary of the analysis of data collected in the study is presented in Table 9.

**Table 9: Performance of students taught the concepts of Budget using Discovery Method of Teaching and those taught using Conventional Method of teaching in senior secondary schools in Benue State.**

Method	Pre-test Scores			Mean Diff.	Post-test Scores		Mean Diff.
	N	Mean	SD		Mean	SD	
Discovery	53	10.02	4.370	4.34	19.28	7.563	7.72
Conventional	55	5.68	2.876		11.56	4.89	

Table 9 showed the pre-test mean score of 10.02; standard deviation of 4.370 with mean difference of 4.34 and the post-test mean score was 19.28; standard deviation of

7.563 and the mean difference of 7.727 taught concepts of population using discovery method of teaching while conventional method has the pre-test mean score of 5.68; standard deviation 2.876 and the mean difference of 4.34 and the post-test mean score was 11.56; standard deviation of 4.89 with the mean difference of 7.72. This result shows that the students taught concepts of budget using discovery method of teaching have better mean score after the treatment than those taught using conventional method in senior secondary schools in Benue State.

**Research Question 6:** What is the difference in the performance of students taught Economics using peer-teaching, discovery method of teaching and those taught using conventional method of teaching in senior secondary schools in Benue State, Nigeria?

In order to answer this research question, the data obtained through the administration of Economics Performance Test (EPT) were analyzed using mean and standard deviation. The summary of the analysis is presented in Table 10.

**Table 10: Performance of students taught Economics using Peer-Teaching, Discovery Method and those taught using Conventional Method in senior secondary schools in Benue State.**

Method	N	Mean	SD
Peer-Teaching	52	9.879	5.785
Discovery Method	53	13.655	4.479
Conventional Method I	54	6.908	2.050
Conventional Method II	56	6.908	2.050

Table 10 showed the mean score of 9.879 with standard deviation of 5.785 from students taught Economics using peer-teaching method; mean score of 13.655 with standard deviation of 4.479 from students taught Economics using discovery method of

teaching while mean score of 6.908 with standard deviation of 2.050 were same for students taught Economics in both conventional method I and II. This revealed that students taught Economics using discovery method of teaching have better mean score (13.655), followed by those taught Economics using peer-teaching method with the mean score of 9.879 in senior secondary schools in Benue State.

#### 4.4 Hypotheses Testing

To test the hypotheses stated in the study, t-test was used to test hypotheses 1 to 5 while analysis of variance (ANOVA) was used to test hypotheses six (6) at 0.05 level of significance. The summary of each of the hypotheses tested is presented as follows:

**Hypothesis One:** There is no significant difference in the pre-test and post-test performance of Economics students taught using peer-teaching in senior secondary schools in Benue State, Nigeria.

The data collected through the administration of Economics Performance Test (EPT) were analyzed using paired sample t-test. The summary of the data collected and analyzed in respect to null hypothesis one is presented in Table 11:

**Table 11: Summary of paired sample t-test on the pre-test and post-test performance of Economics students taught using Peer-Teaching Method in senior secondary schools in Benue State.**

Source	N	Mean	SD	t-cal.	df	$\alpha$	t-crit.	Sig. (2-tailed)	Decision
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Pre-test 52 7.85 3.34128.526 83 0.05 12.59 0.001Retained  
Post-test5214.583.715

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It was found that pre-test has the mean score of 7.85 with standard deviation of 3.341 and the critical value was 12.59 which was less than the calculated value of 28.526 at  $\alpha = 0.05$  and sig. (2-tailed) at 0.001 while the post-test has mean score 14.58 with standard deviation of 3.715. This revealed that, there is no significant difference between the performances of students taught Economics using peer teaching in senior secondary schools in Benue State ( since P-value of  $0.001 < 0.05$ ). Hence, the hypothesis was retained.

**Hypothesis Two:** There is no significant difference in the pre-test and post-test performances of students taught Economics using discovery method in senior secondary schools in Benue State, Nigeria.

The data collected through the administration of Economics Performance Test (EPT) were analyzed using paired sample t-test. The summary of data collected and analyzed in respect to null hypothesis two is presented in Table from the post-test administered on students was analyzed using independent sample t-test. The summary of data collected and analyzed in respect to null hypothesis two is presented in Table 12.

**Table 12: Summary of paired sample t-test on the Pre-test and Post-test Performance of Economics students taught using Discovery Method in senior secondary schools in Benue State.**

Source	N	Mean	SD	t-cal	df	$\alpha$ -crit.	Sig.(2-tailed)	Decision	
Pre-test	55	9.85	1.673	25.675	87	0.05	6.3	0.000	Retained
Post-test	55	12.62	2.175						

It was found that pre-test has the mean score of 9.85 with standard deviation of 1.673 and the critical value was 6.39 which was less than the calculated value of 25.675 at  $\alpha = 0.05$  and sig. (2-tailed) at 0.000 while post-test has mean score 12.62 with standard deviation of 2.175. This connotes that significant difference exists in the pre-test and post-test performances of students taught concept of production using discovery method of teaching in senior secondary schools in Benue State (P-value of  $0.000 < 0.05$ ). Therefore, the hypothesis was retained.

**Hypothesis Three:** There is no significant difference between the academic performance of students taught the concept of division of labour using peer-teaching method and those taught the concept of division of labour using conventional method of teaching in senior secondary schools in Benue State.

The data collected through the administration of Economics Performance Test (EPT) were analyzed using independent sample t-test. The summary of the data collected and analyzed in respect to null hypothesis three is presented in Table 13.

**Table 13: Summary of Independent sample t-test on the performance of students taught concepts of Division of Labour, using Peer-Teaching Method and those taught using Conventional Method in senior secondary schools in Benue State.**

Method	N	Mean	SD	t-cal	df	$\alpha$	t-crit.	Sig. (2-tailed)	Decision
Peer-Teaching	52	10.83	2.157	20.958	85	0.05	5.89	0.003	Retained
Conventional	54	5.85	2.436						

It was found that peer-teaching method has the mean score of 10.83 with standard deviation of 2.157 and the critical value was 5.89 which was less than the calculated value of 20.958 at  $\alpha = 0.05$  and sig. (2-tailed) at 0.003 while the conventional method has mean score 5.85 with standard deviation of 2.436. The P-value of  $0.003 < 0.05$  significance level; hence, the hypothesis was retained. This indicates that there was no significant difference in the academic performance of students taught concept of division of labour using peer teaching and those taught concept of division of labour using conventional method of teaching in senior secondary schools in Benue State.

**Hypothesis Four:** There is no significant difference between the performance of students taught concepts of production using discovery method of teaching and those taught concepts of production using conventional method of teaching in senior secondary schools in Benue State, Nigeria.

The data collected through the administration of Economics Performance Test (EPT) were analyzed using independent sample t-test. The summary of the data collected and analyzed in respect to null hypothesis four is presented in Table 14.

**Table 14: Summary of Independent sample t-test on the performance of students taught the concepts of Production, using Discovery Method in senior secondary schools in Benue State.**

Method	N	Mean	SD	t-cal	df	$\alpha$ -crit.	Sig.(2-tailed)	Decision	
Discovery	53	11.04	2.416	13.685	125	0.05	3.78	0.000	Retained
Conventional	55	5.52	2.675						

It was found that discovery method of teaching has the mean score of 11.04 with standard deviation of 2.416 and the critical value was 3.78 which was less than the calculated value of 13.685 at  $\alpha = 0.05$  and sig. (2-tailed) at 0.000 while the conventional method has mean score 5.52 with standard deviation of 2.675. This means that P-value of  $0.000 < 0.05$  significance level. Thus, the hypothesis was retained. This revealed that there is no significant difference between the academic performance of students' taught Economics using discovery method of teaching and those taught using conventional method of teaching in senior secondary schools in Benue State.

**Hypothesis Five:** There is no significant difference between the performance of students taught concepts of budget using discovery method of teaching and those taught concepts of budget using conventional method of teaching in senior secondary schools in Benue State, Nigeria.

The data collected through the administration of Economics Performance Test (EPT) were analyzed using independent sample t-test. The summary of the data collected and analyzed in respect to null hypothesis five is presented in Table 15.

**Table 15: Summary of Independent sample t-test on the Performance of students taught concepts of Budget using Discover Method of Teaching and those taught using Conventional Method in senior secondary schools in Benue State.**

Method	N	Mean	SD	t-cald	f <sub>0t-crit.</sub>	Sig.(2-tailed)	Decision
Discovery	53	7.02	1.375	12.475	128	0.05 2.67	0.000 Retained
Conventional	55	3.68	1.876				

It was found that discovery method of teaching has the mean score of 7.02 with standard deviation of 1.375 and the critical value was 2.67 which was less than the calculated value of 2.475 at  $\alpha = 0.05$  and sig. (2-tailed) at 0.000 while the conventional method has mean score of 3.68 with standard deviation of 1.876. From the analysis, P-value of  $0.000 < 0.05$  significance level. Hence, the hypothesis was retained. This shows that, significant difference does not exist between the performance of students taught concept of budget using discovery method of teaching and those taught concept of budget using conventional method of teaching in senior secondary schools in Benue State, Nigeria.

**Hypothesis Six:** There is no significant difference in the post-test performances of students taught Economics using peer-teaching, discovery method of teaching and those taught Economics using conventional method of teaching in senior secondary schools in Benue State, Nigeria.

The data collected through the administration of Economics Performance Test (EPT) were analyzed using analysis of variance (ANOVA). The summary of the data collected and analyzed in respect of null hypothesis six is presented in Table 16.

**Table 16: Summary of Analysis of Variance (ANOVA) on the post-test performance of students taught Economics using Peer-Teaching, Discovery Method and those taught using Conventional Method in senior secondary schools in Benue State.**

Status	Sum of Squares	df	Mean Square	F-ratio	F-critical	Prob
Between Groups	4660.880	2	2330.440	35.600	2.18	0.000
Within Groups	20035.604	400	48.218			
Total	24,696.484	402				

It was found that between the groups sum of squares (4660.880) with mean square (2330.440) while within the groups sum of squares (20035.604) with mean square (48.218). This showed the f-ratio value of (35.600) at 400 degrees of freedom and at 0.05 level of significance. The critical value (2.18) is less than f-ratio value (35.600), the probability level of significance P (0.000) is less than 0.05. This implies that there is significant difference in the post-test performance of students taught Economics using peer-teaching, discovery method and those taught using conventional method in senior secondary schools in Benue State, Nigeria.

**Table 17: Summary of Scheffe's Multiple Comparison Test on the Difference in the Post-test Performance of students taught Economics using Peer-Teaching, Discovery Method and those taught using Conventional Method**

Methods	Peer-Teaching	Discovery Method	Conventional Method
Peer-Teaching	1.00	8.21	3.42
Discovery Method	5.65	1.00	3.23
Conventional Method	3.45	7.59	1.00

Table 18 above showed the outcome on the post-test performance of students taught Economics using peer-teaching, discovery method and those taught using conventional method in senior secondary schools in Benue State. The Table indicated

that the performance of students taught using discovery method of teaching was better than those taught using peer-teaching and conventional methods. This result showed that the difference in the performance of students taught Economics using discovery method of teaching was more substantial followed by peer-teaching than the conventional method of teaching in senior secondary schools in Benue State, Nigeria.

#### **4.5 Summary of Findings**

The following are the summary of the major findings for this study:

1. Students taught Economics using peer-teaching had no difference in academic performance in the post-test administered on senior secondary schools in Benue State ( since p-value of  $0.001 < 0.05$ );
2. Students taught Economics using discovery method of teaching do not achieved significantly higher performance in the post-test administered on senior secondary schools in Benue State ( since p-value  $0.000 < 0.05$ );
3. Students taught division of labour using peer teaching do not performed significantly better than those taught using conventional method in senior secondary schools in Benue State ( since p-value  $0.003 < 0.05$ );
4. Students taught Economics using discovery method of teaching do not performed significantly better than those taught using conventional method of teaching in the study area ( since p-value  $0.000 < 0.05$ );
5. Students taught concept of budget using discovery method of teaching do not performed significantly better than those taught using conventional method of

teaching in senior secondary schools in Benue State (since  $p\text{-value } 0.000 < 0.05$ );  
and

6. Students taught Economics using discovery method of teaching do not performed significantly better than their counterparts taught using peer-teaching and those taught Economics using conventional method of teaching in senior secondary schools in Benue State ( since  $p\text{-value } 0.000 < 0.05$ ).

#### **4.6 Discussion of Findings**

The results of the study revealed among others that the use of discovery method of teaching in the teaching of Economics is not significantly better; followed by peer-teaching method of Economics than the conventional method of teaching the subject. In the test of the first hypothesis which stated that there is no significant difference in the pre-test and post-test performance of Economics students taught using peer-teaching method in senior secondary schools in Benue State, was tested and found out that no significant difference exist in the pretest and post-test performance of Economics students taught using peer-teaching method in Benue State. The null hypothesis was therefore, retained.

This study found that the use of peer-teaching has almost equal impact on students' academic performances in Economics because students had no significant higher performance in the post-test administered on them. This finding is not in support of Owoicho (2012), Ayo (2010) and Oyifie (2013) agreed that students taught using peer-teaching method in Economics, respectively performed better than those taught using the conventional classroom teaching. The finding is not in consistent with Adeka (2014) and



Umoro (2015) who reported that peer-teaching is one of the learner's centered method of teaching and has proven to be a very effective method of instruction delivery. The finding is not similar to the finding of Adeka on the performances of senior secondary school students at Economics. They reported that students taught using peer-teaching performed significantly better than the control group. This finding is also not consistent with Onoja (2012) and Onuh (2014) where it was reported that the use of peer-teaching method in classroom help students to concretize abstract issues and topics, motivate their interest in topics being discussed and help to develop in them the continuity of reasoning and coherence of thought which augurs well with the inter-disciplinary nature of other subject. Other advantages enumerated as benefits of the peer-teaching was that it will help to appeal to students' interests and this is because, they tend to appeal to learners' difficulties as well as take care of individual differences in the classroom.

In the test of the study, there is no significant difference in the pre-test and post-test performance of Economics students taught using discovery method in senior secondary schools in Benue State. The paired sample t-test on the pre-test and post-test performance of Economics students taught using discovery method of teaching showed that there was no significant difference in the pre-test and post-test performance of Economics students taught using discovery method of teaching in senior secondary schools in Benue State. The null hypothesis two was therefore retained. This finding clearly revealed that discovery method of teaching has no positive impact on the performance of students taught Economics in senior secondary schools in Benue State, Nigeria. The finding here is not reflection of Ajogi (2013) who reported similar finding from a study where it was reported that discovery and demonstration methods of teaching

make the students to have target when they work on their own. This finding is in not line with Abutu (2014), where it was reported that peer-teaching method build up self-confidence in the learners and encourage them to discover new concepts on their own.

In this test, there is no significant difference between the performance of students taught concepts of division of labour using peer-teaching method and those taught using conventional method. Hypothesis three was tested for significant difference in the academic performance of students taught concepts of division of labour using peer-teaching and students taught using conventional method of teaching; the result of the t-test used for the test revealed that students who were exposed to the use of peer-teaching method were not significantly better than those students taught using conventional method. The null hypothesis was therefore retained. In a similar investigation, Egaji (2010) and Atah (2014) reported that peer-teaching method encourages a student to take responsibility for his or her learning, acquire effective study habits, and persist until he or she has mastered the content. The finding here clearly showed that the use of peer-teaching method could not significantly enhance independent learning skill acquisition among senior secondary school students. The finding disagrees with Ogbonene (2012), where it was pointed out that the use of peer-teaching will not only enhance learning environment but also prepare the next generation for their future lives and careers. The finding is also not consistent with Onuh (2014) where it was reported that peer-teaching contributes to radical but positive changes in schools; help to strengthen teaching-learning process and provide opportunities for self-development and productive. The finding of Owoicho (2012) shows that peer-teaching increases students engagement,

which leads to increased amount of time spent on the discovery of a concept for better performance than those students who were taught using conventional method.

It was also found out that the use of discovery method of teaching Economics is not significantly better than the conventional method of teaching the subject. In the test of the fourth hypothesis, the effect of discovery method on teaching the subject was tested by comparing the academic performance of the students who were exposed to discovery method of teaching with those who were in the control group. The two sample t-test was used for the test. The null hypothesis was retained.

The study revealed that the use discovery method of teaching has no better impact on students' academic performance in Economics than the conventional method. The finding is not in support of Prince (2006), Musa (2007) and Ogebe (2010) who agreed that students taught using discovery method of teaching Economics performed better than those taught using conventional method of teaching. The findings of Atah (2014) show that discovery method of teaching increase students engagement, which leads to increased commitment to their schools activities.

The effect of discovery method of teaching concept of budget on the performance of the students was tested in hypothesis five by comparing the performance of students in the experimental group and the control group in senior secondary schools in Benue State, Nigeria. The result of the test which was conducted with the two sample t-test showed that students who were taught with discovery method of teaching significantly performed better than those students who were taught the same topic using conventional method of teaching. The null hypothesis was therefore retained. The finding clearly revealed that the

use of discovery method of teaching has no better impact on students' academic performances in Economics than those students taught using conventional method. The finding is not in support of Adeka (2014) and Itodo (2011) that agreed that students taught with discovery method of teaching Economics performed better than those taught using conventional method. The finding is not consistent with Onoja (2012) who reported that discovery method is one of the learners' centered method of teaching that improve learners academic performance. The finding is not similar to the finding of Musa (2007) from a study carried out to determine the effectiveness of game simulation and discovery method of teaching on the academic performance of Economics students in senior secondary schools in Kano State. He reported that students taught using discovery method of teaching performed significantly better than the control group. This finding is not consistent with Umar (2010) where it was reported that the use of discovery method of teaching helps students to discover their potentials and skills.

In this test, that there is no significant difference in the post-test performance of students taught Economics using peer-teaching method, discovery method of teaching and those taught using conventional method in senior secondary schools in Benue State, Nigeria. The summary of analysis of variance (ANOVA) on the post-test performance of students taught Economics using peer-teaching method, discovery method of teaching and those taught using conventional method in Benue State, Nigeria showed that performance of students taught Economics using discovery method of teaching was not better than those taught using peer-teaching method and conventional method. This result indicated that the difference in the performance of students taught Economics using discovery method of teaching was not more substantial than the other methods. The null

hypothesis was therefore retained. This finding revealed among others, that the improvement in students' academic performance through the use of discovery method of teaching, peer teaching and conventional were similar. In other words, the advantages in the use of discovery method, peer teaching and conventional method allow students to be independent learners. The finding here is not a reflection of Onuh (2014) that students performed better when they are taught using discovery method of teaching. Also, Ogebe (2010) report further not supports this finding as it revealed that discovery method of teaching do not increases learners' zeal to improve in their study habits but focus and self-discipline do.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter covered summary, conclusions, recommendations, contributions to knowledge, limitations to the study and suggestions for further studies.

#### 5.2 Summary

The need for improving performances of students at all levels of the Nigerian educational system cannot be over-emphasized. The Federal Ministry of Education in Adanu (2014) identifies the role of Economics education amongst others to include rational decision making as regards to scarce means and unlimited human wants. In view of the declining level in performances amongst students of Economics calls for different approaches in methodology towards improving academic performances. The methods of teaching and learning process have been partly blamed for these declining performances. Peer-teaching and discovery methods of teaching are seen as learner-centered approach to instruction make the students to influence the content, activities, materials and pace of learning. It thereby places the learners in the center of the learning process and facilitates independent learning (Abu, 2015). The objectives of teaching Economics is to produce graduates that possess knowledge in basic Economics concepts and principles that can make them function in their own country towards national development and to apply such to solve economic problems in their society and as well as in other countries. However, the WASSCE candidates' performance revealed that these objectives are not being achieved due to inadequate knowledge of the subject matter, inability of the candidates to

draw and label diagrams; construct graphs as well as solve simple calculations in Mathematical aspects of Economics. These problems as perceived could be as a result of the teaching methods adopted on the part of some teachers. Employing the use of peer-teaching and discovery methods of teaching to teach Economics concepts might be of immense benefit in alleviating such problems.

To effectively carry out the study, quasi-experimental procedure was undertaken. Four senior secondary schools offering Economics at the senior secondary school level were selected from urban and rural location of Benue State. The schools were divided into two experimental and two control groups. Experimental group one was taught the subject using peer-teaching method, experimental group two was taught the subject using discovery method of teaching while the control groups were taught the subject using conventional method of teaching. Variables investigated among others were peer-teaching, discovery method of teaching and academic performance. Data on academic performance were collected from the three groups before and after the experiment. The study was structured into five chapters. Chapter one introduced the main theme of the study including a general background of the study, the statement of the problem, objectives of the study, research questions and hypotheses; scope of the study, its significance and limitations. Chapter two was a review of related literature including empirical studies on peer-teaching method, discovery method of teaching along with the conventional method. Chapter three concentrated on the research methodologies which include the research design, study population, sample and sampling technique, instrumentation: its validity and reliability among others along with statistical procedure used to analyze the data collected. In chapter four, the statistical analysis of the data from

the experiments were presented in line with the research questions and hypotheses. Six null hypotheses were tested in the study; and all the hypotheses were retained.

The test of hypotheses one and two, the difference in pre-test and post-test performance of Economics students taught using peer-teaching method on the students' academic performances. The test indicated that there was significant difference in the pre-test and post-test performance of Economics students using peer-teaching in senior secondary schools in Benue State, Nigeria. The two null hypotheses were therefore, retained. Hypothesis three, stated that there is no significant difference between the performance of students taught concepts of division of labour using peer- teaching method and those taught using conventional method in senior secondary schools in Benue State, Nigeria, was tested and the results showed that there was no significant difference between the performance of students taught concepts of division of labour using discovery method and those taught using conventional method in senior secondary schools in Benue State, Nigeria, thus, the null hypothesis three was also retained.

In the test of hypothesis four, which stated that there is no significant difference between the performance of students taught concepts of production, using discovery method and those taught using conventional method was tested and found out that there exist significant difference between the performance of students taught the concepts of production using peer-teaching method and those taught using conventional method in senior secondary schools in Benue State, Nigeria. Therefore, the null hypothesis four was retained. Hypothesis five stated that there is no significant difference in the performance of students taught concepts of population using peer-teaching method and those taught concepts of population using conventional method of teaching in senior secondary



schools in Benue State, Nigeria. This hypothesis was tested and found out that there was no significant difference between the performance of students taught the concepts of population using discovery method and those taught the concepts of population using conventional method of teaching in senior secondary schools in Benue State, Nigeria. The null hypothesis five, therefore, was retained. Hypothesis six stated that, there is no significant difference in the post-test performance of students taught Economics using peer-teaching, discovery method and those taught using conventional method in senior secondary schools in Benue State, Nigeria. This hypothesis was tested and it was discovered that the performance of students taught Economics using discovery method was better than those taught using peer-teaching and conventional method of teaching. This result indicated that there is difference in the performance of students taught Economics using discovery method was more substantial than the other methods. The null hypothesis was therefore, retained.

### **5.3 Conclusions**

Based on the analysis of the data collected from the experiments and tests of the study's hypotheses, the following conclusion was drawn: students who were taught using peer-teaching method do not performed significantly better than their counterparts who were taught Economics using conventional method; but that the use of peer-teaching method significantly increases the rate of acquisition of independent learning skills among students; students who were taught concepts of budget, population and division of labour using discovery method of teaching performed significantly better than students who were taught concepts of budget, population and division of labour using conventional method; the use of discovery method of teaching significantly increases the

rate of acquisition of analytical and critical thinking among students;the use of peer-teaching method significantly reduces the amount of time required by students to accomplish Economics tasks than the use of the conventional method of teaching; andthere is no significant difference in the academic performance of urban and rural students who were exposed to both peer-teaching and discovery teaching methods.

#### **5.4 Recommendations**

The researcher with due consideration to the findings of this study recommended as follows:

1. Economics teachers should make use of discovery method of teaching since it was found suitable for teaching-learning and capable of yielding positive students' academic performance and students' creativity than using conventional method of teaching in senior secondary schools in Benue State, Nigeria;
2. Economics teachers should use peer-teaching method to teach concepts of production since it improves Economics students' academic performance and creative abilities than using conventional method to teach in senior secondary schools in Benue State, Nigeria;
3. Peer-teaching method should be used by Economics teachers to teach the concepts of division of labour, since it has been found to enhance Economics students' academic performance and creative abilities than using conventional method to teach in senior secondary schools in Benue State, Nigeria;

4. Discovery method of teaching should be given more consideration by Economics teachers in teaching basic Economics analysis as it was found suitable and effective in teaching Economics than the use of conventional method in senior secondary schools in Benue State, Nigeria;
5. Economics teachers should use discovery method of teaching to teach the concepts of budget since it has been found to be effective and to improve students' academic performance than the use of conventional method in senior secondary schools in Benue State, Nigeria; and
6. The use of discovery method of teaching should be encouraged among Economics teachers to teach the concepts of population, since it has been found useful and effective to improve Economics students' academic performance than conventional method in senior secondary schools in Benue State, Nigeria.

### **Contribution to Knowledge**

The findings of this study would contribute to knowledge among others that:

1. The use of discovery method of teaching will improve the academic performance of students in senior secondary schools at Economics in Nigeria;
2. The study revealed the contribution of peer-teaching and discovery methods of teaching Economics curriculum content, specific objectives and general objectives of education in Nigeria;
3. The study also enable the curriculum planners and experts to establish under what condition they can initiate plans for the provision and integration of

facilities in implementation of Economics curriculum and in determining how the curriculum is to be evaluated which guides the future career planning of schools;

4. Discovery method of teaching will greatly enhance the academic performance of Economics students in senior secondary schools not only within the study area but also beyond; and
5. Professional indices like, knowledge of the subject-matter, use of instructional materials, communication and pedagogical skills will improve Economics teachers competencies and thereby students improvement.

### **Limitations to the Study**

There were few limitations to this study which might affect the generalization drawn from the findings of this study. The limitations are as follows:

1. Time: there was not enough time to cover beyond the study area; and
2. The current curriculum approved by the Federal Ministry of Education in public schools restricted Economics to only students offering commercial or art subjects. Therefore, the subjects (SSII students) used in the study do not involve students in the sciences, which might have affected the result of this study.

### **5.5 Suggestions for further Studies**

Based on the findings of the study, the following suggestions were made:

1. Similar study should be carried out in senior secondary schools in other parts of the country;

2. Similar study should be conducted in Chemistry at senior secondary school level; and
3. Similar study should be conducted in junior secondary school level.

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## **APPENDIX I**

## LETTER OF INTRODUCTION



DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND CURRICULUM  
Faculty of Education  
AHMADU BELLO UNIVERSITY, ZARIA

Professor Ibrahim Garba, B.Sc (Hons) Geology, M.Sc (Mineral Exploration) ABU, Ph.D Geology (London), D.I.C., F.S.M.G.S.  
Dr. Musa Idris Harbau, GRD (C), NCE, BA (Ed), M.Ed Admin and Planning (UK), PhD Admin and Planning (ABU)

Our Ref: DEFC/S.25

Date: 03/10/2018

The Principal,  
Court. Sec. School,  
Ushongo,  
Benue State

Dear Sir,

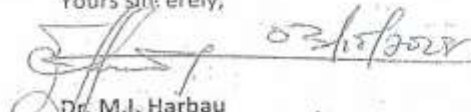
### LETTER OF INTRODUCTION

The bearer, Emmanuel Patrick ACEENE, with Registration Number P15EDFC9006, is a student in this department. He/She is carrying out research, being part of requirement for graduation, in Curriculum and Instruction. He/She needs certain information in your organization. Kindly, allow him/her have access to information in your organization. The information obtained will be used for research purpose only. The topic of his/her research is

Analysis of the Effect of Peer-Teaching  
and Discovery Methods on Academic  
Performance of Economics Students in  
Senior Secondary Schools in Benue State, Nigeria.

Thanks in anticipation of your kind response.

Yours sincerely,



Dr. M.I. Harbau  
Head of Department

Head of Department  
Dept. of Educational Foundations &  
Curriculum  
A. B. U. Z



DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND CURRICULUM  
Faculty of Education  
AHMADU BELLO UNIVERSITY, ZARIA

Professor Ibrahim Garba, B.Sc (Hons) Geology, M.Sc (Mineral Exploration) ABU, Ph.D Geology (London, D.L.C., F.A.R.G.S)  
Dr. Musa Idris Harbau, GRD (CA), SCE, B.A (Ed), M.Ed Admin and Planning (BUK), Ph.D Admin and Planning (ABU)

Our Ref: DEFC/S.25

Date: 13/10/18

The Principal,  
Government Sec. School,  
Osoke,   
Benue State

Dear Sir,

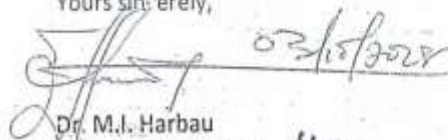
LETTER OF INTRODUCTION

The bearer, Emmanuel Patrick AKEKE, with Registration Number P15EDFC9006 is a student in this department. He /She is carrying out research, being part of requirement for graduation, in Curriculum and Instruction. He/She needs certain information in your organization. Kindly, allow him/her have access to information in your organization. The information obtained will be used for research purpose only. The topic of his/her research is

Analysis of the Effect of Peer-Teaching  
and Discovery Methods on Academic  
Performance of Economics Students in  
Senior Secondary Schools in Benue State, Nigeria

Thanks in anticipation of your kind response.

Yours sincerely,



Dr. M.I. Harbau

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A. B. U



DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND CURRICULUM  
Faculty of Education  
AHMADU BELLO UNIVERSITY, ZARIA

Professor Ibrahim Garba, B.Sc (Hons) Geology, M.Sc (Mineral Exploration) ABU, Ph.D Geology (London), D.Lit. FNAR/S  
Department: Dr. Musa Idris Harbau, GRD (Y), SCE, B.A (Ed), M.Ed Admin and Planning (BUK), PhD Admin and Planning (ABU)

Our Ref: DEFC/S.25

Date: 03/10/2018

The Principal,  
Government Sec. School,  
Torkula,  
Benue State.

Dear Sir,

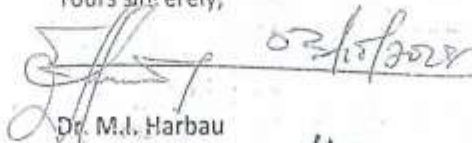
LETTER OF INTRODUCTION

The bearer, Emmanuel Patrick AGENE, with Registration Number P15EDFC9006, is a student in this department. He /She is carrying out research, being part of requirement for graduation, in Curriculum and Instruction. He/She needs certain information in your organization. Kindly, allow him/her have access to information in your organization. The information obtained will be used for research purpose only. The topic of his/her research is

Analysis of the Effect of Peer-Teaching and Discovery Methods on Academic Performance of Economics Students in Senior Secondary Schools in Benue State, Nigeria.

Thanks in anticipation of your kind response.

Yours sincerely,



Dr. M.I. Harbau  
Head of Department

Head of Department  
Dept. of Educational Foundations &  
Curriculum  
A. B. U. Zaria





DEPARTMENT OF EDUCATIONAL FOUNDATIONS AND CURRICULUM  
Faculty of Education  
AHMADU BELLO UNIVERSITY, ZARIA

Professor Ibrahim Garba, B.Sc (Hons) Geology, M.Sc (Mineral Exploration) ABU, Ph.D Geology (London), D.I.C., F.N.A.R.G.S.  
Dr. Musa Idris Harbau, GRD (C), NCE, B.A (Ed), M.Ed. Admin and Planning (BUK), PhD Admin and Planning (ABU)

Our Ref: DEFC/S.25

Date: 02/10/2018

The Principal,  
Govt. Sec. School,  
Alaide,  
Benue State.

Dear Sir,

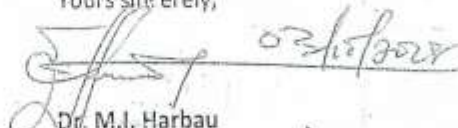
LETTER OF INTRODUCTION

The bearer, Emmanuel Patrick ACOENE, with Registration Number P15EDFC9026, is a student in this department. He/She is carrying out research, being part of requirement for graduation, in Curriculum and Instruction. He/She needs certain information in your organization. Kindly, allow him/her have access to information in your organization. The information obtained will be used for research purpose only. The topic of his/her research is

Analysis of the Effect of Peer-Teaching and Discovery Methods on Academic Performance of Economics Students in Senior Secondary Schools in Benue State, Nigeria.

Thanks in anticipation of your kind response.

Yours sincerely,



Dr. M.I. Harbau  
Head of Department

Head of Department  
Dept. of Educational Foundations &  
Curriculum  
A. B. U. Zaria

**APPENDIX II**

**PRE-TEST**

**ECONOMICS PERFORMANCE TEST 1 (EPT1)**

Subject: Economics

Time: 40 Minutes

**Instruction:** Attempt all the objective questions by choosing the correct answer from the list of options provided. Each question carries equal marks of 2.

School:.....

Name:.....

- (1) ..... is the total number of people living together in a given geographical area  
(a) Optimum population (b) Population (c) Over-population (d) Under-population  
(e) None of the above.
  
- (2) Optimum population is also known as.....  
(a) Optimal target (b) Real population (c) Auction population (d) Sampled population (e) Ideal population
  
- (3) Population is classified into.....(a) 6 (b) 4 (c) 2 (d) 3 (e) 5
  
- (4) ..... is one of the factors that affect population (a)  
Income (b) Taxation (c) Birth rate (d) Age level (e) Weather
  
- (5) The type of population whereby all resources are equal to the total number of people is called

- (a) Fixed population (b) Joint population (c) Optimum population (d) Under-population (e) Over-population
- (6) The following are factors that influence population growth except ..... (a) Early marriage (b) Birth rate (c) Death rate (d) Religion (e) Utility
- (7) ..... is one of the factors that lead to overpopulation of a given nation. (a) Increase in death rate (b) Increase in birth (c) Per capita income (d) Late marriage (e) Poor feeding habit.
- (8) The following are effects of population growth except ..... (a) Poor standard of living (b) Increase in government spending (c) Delay of development (d) unemployment (e) Production
- (9) ..... is an economic effect of under-population (a) Shortage of manpower (b) Fertile land (c) Good climate (d) Natural resources (e) Illiteracy
- (10) All the following are causes of under-population except ..... (a) Immigration (b) Emigration (c) Self-medication (d) Decrease in birth rate (e) Increase in birth rate
- (11) The average number of a given population with a specific area of land is called..... (a) Average population (b) Mean population (c) Mean calculated (d) Population density (e) Optimum population.
- (12) Above optimum population is known as ..... (a) Under-population (b) Overpopulation (c) Target population (d) Joint population (e) Desired population.



- (13) Production is best defined as .....(a) Creation of goods and services for man's use (b) Changing of raw materials into finished goods for human consumption (c) Creation utility (d) Making available goods and services (e) Rendering of services.
- (14) Production is classified into ..... (a) 5 (b) 6 (c) 3 (d) 2 (e) 4.
- (15) Production is said to be complete only when goods and services reach..... (a) Labour market (b) Commodity market (c) Warehouse (d) Final consumers (e) Retailers.
- (16) ..... production includes distribution of goods and provision of direct services (a) Tertiary (b) Primary (c) Secondary (d) Commercial (e) Technical.
- (17) The major factors of production are classified into ..... (a) 7 (b) 6 (c) 2 (d) 5 (e) 4
- (18) The reward for land as a factor of production is ..... (a) Capital (b) Rent (c) Profit (d) Wage (e) Interest.
- (19) ..... is the organizer of the other factors of production. (a) Manpower (b) Director (c) Cashier (d) Entrepreneur (e) Businessman.
- (20) ... is defined as man-made wealth that is used in production of other wealth.  
(a) Land (b) Labour (c) Capital (d) Interest (e) Profit.
- (21) ..... is the reward for labour (a) Rent (b) Profit (c) Except profit (d) Tax holidays (e) Wages

(22) The actual manual and mental efforts of a human being in the process of production is called..... (a) Land (b) Entrepreneur (c) Labour (d) Capital (e) All of the above

(23) Fixed cost refers to..... (a) Variable cost plus total cost (b) Cost of resources which do not vary with scale of production (c) Variable cost divided by total cost (d) Cost of resources which do change as output changes (e) It is the cost of producing an extra unit of an output.

(24) Total cost means..... (a) The extra cost incurred (b) Fixed cost divided by unit of output (c) The sum of total output and marginal output (d) The sum of average cost and marginal cost (e) The sum of fixed cost and variable cost.

(25) ..... is defined as the estimated revenue and expenditure of a government over a period of time, usually a year. (a) Balance budget (b) Fiscal policy (c) Budget (d) Government revenue (e) Government expenditure.

(26)..... is a type of budget (a) Fiscal policy (b) Government revenue (c) Government expenditure (d) Taxation (e) Surplus.

(27) There are ..... types of expenditures (a) 4 (b) 2 (c) 7 (d) 5 (e) 6

(28) ..... are expenses on economic projects which usually last for a long period of time.

(a) Recurrent expenditure (b) Government annual spending (c) Capital expenditure (d) Residual expenditure (e) Concurrent expenditure.

(29)..... is an economic situation when government estimated revenue exceeds her estimated expenditure (a) Deficit budget (b) Surplus budget (c) Current budget (d) Balance budget (e) Concurrent budget.

(30)..... are expenses that occur periodically which may be monthly or yearly. (a) Recurrent expenditure (b) Concurrent expenditure (c) Capital expenditure (d) Fiscal expenditure (e) Suspended expenditure.

(31) Budget can be classified into..... (a) 4(b) 5 (c)3 (d)6 (e)2

(32)When government estimated revenue is equal to her estimated expenditure we have.....

(a) Surplus budget (b) Balance budget (c) Fiscal policy budget (d) Deficit budget (e) Capital budget.

(33) ..... is one of the sources of government revenue (a) Tax (b) Payment on goods by government (c) Monetary policies (d) Investment (e) Sales of stationaries.

(34) One of the following is the effect of deficit budget. (a) Slow economic development (b) Improvement medical facilities (c) Increased in salaries of workers (d) creation of jobs (e) Payment of promotion arrears.

(35) Financial records of government that show the estimated revenue is greater than estimated expenditure is called..... (a) Deficit budget (b) Expected budget (c) Surplus budget (d) Balanced budget (e) Income budget.

(36) ..... budget increases government spending over a period of time.  
(a) Expected (b) Deficit (c) Income (d) Balanced (e) Surplus

(37)..... is the splitting of production process into stages and each stage is handled by a worker' (a) Production (b) Division of labour (c) Mobility of labour (d) Utilization of resources (e) Labour cost.

(38) One of the following is not an advantage of division of labour. (a) Less tired (b) Increased efficiency (c) Mass production (d) Immobility of labour (e) Time is saved.

(39) ..... is one of the disadvantages of division of labour. (a) Stimulation of invention (b) Monotony of work (c) Increased leisure (d) Cheapness of goods (e) Extension of life span.

(40) ..... is one of the factors that encourage division of labour. (a) Shortage of manpower (b) Nation of products (c) Market demand (d) Danger of waste (e) Large market.

(41) ..... is one of the factors that discourages division of labour. (a) Market demand (b) Reduction of cost (c) Specialization (d) Money (e) Availability of manpower.

(42) All following are advantages of division of labour except..... (a) Increased in total output (b) Increase in technology (c) Unemployment (d) Less fatigue (e) Stimulation of innovation.

(43) All the following are disadvantages of division of labour except.....(a) High managerial efficiency (b) Development in technology (c) Nature of product (d) Large market (e) Shortage of manpower.

(44)..... is the factor that affect the demand for labour. (a) Wage rate (b) Viable economy (c) Devotion (d) Level of education (e) Population.

(45)..... is defined as the willingness and ability of a worker or workers to move from one occupation to another. (a) Mobility of supply (b) Mobility of goods and services (c) Mobility of labour (d) Horizontal mobility (e) Vertical mobility

(46) Movement of labour from one type of occupation to another is called ..... (a) Geographical mobility (b) Vocational mobility (c) Industrial mobility (d) Occupational mobility (e) Accidental mobility.

(47) Movement of labour is classified into .....(a) 6 (b) 3 (c) 5 (d) 4 (e) 2 .

(48) The willingness and ability of a worker to move from one area to another is called.....(a) Vocational mobility (b) Area mobility (c) Industrial mobility (d) Occupational mobility (e) Geographical mobility.

(49) All the following are causes of immobility of labour except..... (a) High cost of living (b) Cost of transferring (c) Working condition (d) High population (e) Deep love of occupation.

(50) The movement of labour from company A to company B is called ..... (a) Accidental mobility (b) Industrial mobility (c) Vocational mobility (d) Geographical mobility (e) Occupational mobility.

### **APPENDIX III**

#### **ECONOMICS PERFORMANCE TEST 1 (EPT1)**

##### **MARKING SCHEME TO PRE-TEST**

1. B
2. E
3. D
4. C
5. C
6. E
7. B
8. E
9. A
10. A
11. D
12. B
13. B
14. C

15. D

16. A

17. E

18. B

19. D

20. C

21. E

22. C

23. B

24. E

25. C

26. E

27. B

28. C

29. B

30. A

31. C

32. B

33. A

34. A

35. C

36. E

37. B

38. D

39. B

40. E

41. A

42. C

43. D

44. B

45. C

46. D

47. B

48. E

49. D

50. B





**APPENDIX IV**

**POST-TEST**

**ECONOMICS PERFORMANCE TEST 2 (EPT2)**

Subject: Economics

Time: 40 Minutes

**Instruction:** Attempt all the objective questions by choosing the correct answer from the list of options provided. Each question carries equal marks of 2.

School:.....

Name:.....

- (1) The movement of labour from company Y to company Z is called .....  
(b) Vocational mobility (b) Industrial mobility (c) Accidental mobility (d) Geographical mobility (e) Occupational mobility.
- (2) All the following are causes of immobility of labour except .....  
(b) High cost of living (b) Cost of transferring (c) Ideal living (d) Working condition (e) Deep love of occupation
- (3) The willingness and ability of a worker to move from one area to another is called.....  
(a) Geographical mobility (b) Occupational mobility (c) Vocational mobility (d) Local mobility (e) Industrial mobility
- (4) Movement of labour is classified into (a) 2 (b) 5 (c) 3 (d) 6 (e) 4
- (5) Movement of labour from one type of occupation to another is called: .....  
(b) Geographical mobility (b) Industrial mobility (c) Accidental mobility (d) Occupational mobility (e) Area mobility
- (6) ..... is defined as the willingness and ability of worker to move from one occupation to another (a) Mobility of labour (b) Supply of labour (c) Vertical mobility (d) Horizontal mobility (e) Mobility of goods

- (7) ..... is one of the factors that affect the demand for labour.  
 (a) Increase in death rate (b) Increase in birth (c) Wage rate (d) viable economy (e) Poor feeding habit.
- (8) All the following are disadvantages of division of labour except .....  
 (a) High managerial efficiency (b) Nature of product (c) Level of technology (d) Shortage of manpower (e) Large market
- (9) ..... all the following are disadvantages of division of labour except (a) Stimulation of innovation (b) Unemployment (c) Increase in total output (d) Increase in technology (e) Less fatigue
- (10) ..... is one of the factors that discourages division of labour  
 (a) Reduction in cost (b) Specialization (c) Market demand (d) Money (e) Availability of manpower
- (11) ..... is one of the factors that encourage division of labour (a) Large market (b) Danger of waste (c) Market demand (d) Nature of product (e) Excess of raw materials.
- (12) ..... is one of the disadvantages of division of labour  
 (a) Increased in leisure (b) Stimulation (c) Life expectancy (d) Monotony of work (e) Cheapness of goods
- (13) One of the following is not an advantage of division of labour (a) Increased efficiency (b) Immobility of labour (c) Mass production (d) Time is saved (e) Less tired.
- (14) ..... is the splitting up of production process into stages and each stage is handled by a worker (a) Labour stage (b) Mobility of labour (c) Production (d) Utility (e) Division of labour .
- (15) ..... budget increases government spending over a period of time (a) Surplus (b) Expected (c) Balanced (d) Income (e) Deficit.
- (16) Financial records of government that show the estimated revenue is greater than estimated expenditure are called ..... (a) Deficit budget (b) Balanced budget (c) Income budget (d) Surplus budget (e) Expected budget.

- (17) One of the following is the effect of deficit budget (a) Improved medical facilities (b) Increase in salaries of workers (c) Slow economic development (d) Creation of jobs (e) Payment of promotion arrears.
- (18) ..... is one of the sources of government revenue (a) Investment (b) Monetary policies (c) Payments on goods and services by the government (d) Sales of stationaries (e) Tax
- (19) When government estimated revenue is equal to her estimated expenditure we have: (a) Surplus budget (b) Balanced budget (c) Deficit budget (d) Capital budget (e) Income budget.
- (20) Budget can be classified into..... (a) 3 (b) 5 (c) 2 (d) 4 (e) 6
- (21) .....are expenses that occur periodically which may be monthly or yearly (a) Fiscal expenditure (b) Concurrent expenditure (c) Recurrent expenditure (d) Capital expenditure (e) Suspended expenditure
- (22) ..... is an economic situation when government estimated revenue exceeds her estimated expenditure (a) Surplus budget (b) Balanced budget (c) Income budget (d) Deficit budget (e) Concurrent budget
- (23) ..... is defined as man-made wealth that is used in production of other wealth (a) Interest (b) Profit (c) Land (d) Labour (e) Capital
- (24) ..... is the organizer of the other factors of production (a) Entrepreneur (b) Cashier (c) Director (d) Manpower (e) Proprietress
- (25) The reward for land as a factor of production is ..... (a) Wages (b) Capital (c) Profit (d) Interest (e) Rent
- (26) The major factors of production are classified into ..... (a) 5 (b) 4 (c) 3 (d) 2 (e) 7
- (27) ..... production includes distribution of goods and provision of direct services (a) Technical (b) Commercial (c) Secondary (d) Tertiary (e) Primary

(28) Production is said to be completed only when goods and services reach the .....

(a) Labour market (b) Commodity market (c) Final consumer (d) Warehouse (e) Retailer

(29) Production is classified into ..... (a) 3 (b) 5 (c) 4 (d) 2 (e) 6

(30) Production is best defined as ..... (a) Creation of goods and services for man's use (b) Creation of utility (c) Making available goods and services (d) Rendering services (e) Changing of raw materials into finished goods and services for human consumption.

(31) Above optimum population is known as ..... (a) Under-population (b) Desired population (c) Over-population (d) Joint population (e) Target population

(32) The average number of a given population with a specific area of land is called ..... (a) Optimum population (b) Average population (c) Mean population (d) Density population (e) Team population

(33) All the following are causes of under-population except (a) Self-medication (b) Decrease in birth rate (c) Increase in birth rate (d) Emigration (e) Immigration

(34) .....is an economic effect of under-population (a) Slow economic development (b) Improvement medical facilities (c) Increased in salaries of workers (d) creation of jobs (e) Payment of promotion arrears.

(35) The following are effects of population growth except (a) Poor standard of living (b) Rise in government spending (c) Poor development (d) Production (e) unemployment

(36) ..... is one of the factors that leads to over-population of a given nation (a) Late marriage (b) Poor feeding habit (c) Per capita income (d) (e) Increase in birth rate

(37) The following are factors that influence population growth except..... (a) Utility (b) Early marriage (c) Death rate (d) Religion (e) Birth rate

(38) The type of population whereby all resources are equal to the total number of people is called ..... (a) Fixed population (b) Joint population (c) Optimum population (d) Under-population (e) Over-population

(39) ..... is one of the factors that affect population (a) Stimulation of invention (b) Birth rate (c) Increased in leisure (d) Age level (e) Extension of life span.

(40) Population is classified into ..... (a) 5 (b) 2 (c) 4 (d) 6 (e) 3

(41) Optimum population is also known as ..... (a) Ideal population (b) Target population (c) Sampled population (d) Real population (e) Availability of manpower.

(42) ..... are expenses on economic projects which usually last for a long period of time (a) Concurrent expenditure (b) Current expenditure (c) Capital expenditure (d) Recurrent expenditure (e) Residual expenditure

(43) There are ..... types of expenditure (a) 3 (b) 5 (c) 4 (d) 2 (e) 6

(44)..... is a type of budget (a) Fiscal policy (b) Surplus (c) Taxation (d) Government spending (e) Government expenditure

(45)..... is defined as the estimated revenue and expenditure of a government over a period of time, usually a year (a) Balance budget (b) Government revenue (c) Government expenditure (d) Fiscal policy (e) Budget

(46) Total cost means ..... (a) The sum of fixed cost and variable cost (b) The sum of average cost and marginal cost (c) The sum of total output and marginal output (d) Fixed cost divided by unit of output (e) The extra cost incurred

(47) Fixed cost refers to .....(a) Cost of resources which do not vary with scale of production (b) Cost of producing an extra unit of the total output (c) Cost of resources which do not change as output changes (d) Variable cost plus total cost (e) Variable cost multiplied by total cost

(48) The actual manual and mental efforts of a human being in the process of production is called.....(a) Entrepreneur (b) Capital (c) Manpower (d) Labour (e) Capital

(49) ..... is the reward for labour (a) Profit (b) Wages (c) Rent (d) Tax holidays  
(e) Interest

(50) ..... is the satisfaction a consumer derives from the consumption of  
a particular commodity (a) Happiness (b) Marginality (c) Utility (d) Satisfaction (e)  
Enjoyment

## **APPENDIX V**

### **ECONOMICS PERFORMANCE TEST 2 (EPT2)**

#### **POST-TEST MARKING SCHEME**

1. E
2. D
3. A
4. A
5. C
6. D
7. A
8. D
9. E
10. B
11. C
12. A
13. D
14. B
15. E
16. A
17. D
18. C
19. E
20. B
21. A
22. C
23. D
24. E
25. A
26. E



- 27. B
- 28. D
- 29. C
- 30. A
- 31. E
- 32. C
- 33. A
- 34. E
- 35. A
- 36. D
- 37. E
- 38. A
- 39. C
- 40. B
- 41. E
- 42. A
- 43. C
- 44. D
- 45. B
- 46. E
- 47. A
- 48. C
- 49. D
- 50. B

## APPENDIX VI

### Peer-Teaching Method

#### SS II Economics Pre-test and Post-test Scores

S/N	Pre-test	Post-test
1.	38	46
2.	40	52
3.	50	64
4.	36	50
5.	52	60
6.	50	48
7.	46	56
8.	38	50
9.	32	46
10.	48	58
11.	34	50
12.	36	54
13.	46	58
14.	30	52
15.	28	48
16.	30	46
17.	32	50
18.	26	48
19.	42	50
20.	40	46
21.	36	54
22.	30	50
23.	44	56
24.	46	50
25.	48	52

26.	38	50
27.	42	54
28.	32	48
29.	46	56
30.	36	50
31.	28	46
32.	44	48
34.	26	46
35.	36	50
36.	30	46
37.	50	54
38.	48	56
39.	26	42
40.	44	60
41.	32	54
42.	30	52
43.	28	46
44.	40	56
45.	42	58
46.	30	50
47.	38	48
48.	44	56
49.	32	52
50.	30	50
51.	28	48
52.	38	50

## APPENDIX VII

### Discovery Method

#### SS II Economics Pre-test and Post-test Scores

S/N	Pre-test	Post-test
1.	30	58
2.	28	40
3.	34	46
4.	42	54
5.	26	50
6.	28	48
7.	32	56
8.	30	50
9.	36	56
10.	34	48
11.	28	46
12.	26	40
13.	40	58
14.	32	52
15.	46	60
16.	30	52
17.	34	50
18.	36	48
19.	42	56
20.	28	48
21.	26	46
22.	28	48
23.	42	60
24.	38	52
25.	42	56

26.	28	42
27.	30	50
28.	36	54
29.	38	54
30.	30	50
31.	26	48
32.	28	46
33.	30	48
34.	28	50
35.	40	56
36.	26	46
37.	32	50
38.	28	40
39.	38	54
40.	32	50
41.	28	48
42.	30	52
43.	26	46
44.	34	54
45.	26	48
46.	40	60
47.	38	52
48.	32	50
49.	36	50
50.	34	56
51.	30	52
52.	32	48
53.	38	50
54.	40	56

## APPENDIX VIII

### Control Group I

#### SS II Economics Pre-test and Post-test Scores

S/N	Pre-test	Post-test
1.	20	38
2.	28	42
3.	24	36
4.	44	50
5.	26	40
6.	28	46
7.	30	52
8.	22	42
9.	32	38
10.	28	38
11.	28	40
12.	26	26
13.	40	28
14.	32	32
15.	46	40
16.	30	22
17.	34	40
18.	36	44
19.	42	38
20.	28	34
21.	26	42
22.	28	26
23.	42	30
24.	32	44
25.	36	40
26.	28	36

27.	30	44
28.	36	36
29.	38	30
30.	30	26
31.	26	24
32.	28	40
33.	30	38
34.	24	28
35.	26	36
36.	28	40
37.	30	34
38.	24	42
39.	20	30
40.	30	26
41.	26	38
42.	28	32
43.	26	36
44.	32	34
45.	30	40
46.	28	32
47.	32	30
48.	28	26
49.	30	36
50.	26	38
51.	28	32
52.	30	42
53.	36	30
54.	30	36

## APPENDIX IX

### Control Group II

#### SS II Economics Pre-test and Post-test Scores

S/N	Pre-test	Post-test
1.	28	36
2.	24	30
3.	38	26
4.	30	34
5.	24	30
6.	28	26
7.	30	34
8.	36	40
9.	32	26
10.	30	46
11.	26	40
12.	20	42
13.	30	38
14.	34	22
15.	40	30
16.	32	50
17.	34	44
18.	32	46
19.	22	30
20.	26	28
21.	28	36
22.	24	38
23.	30	34
24.	38	30
25.	36	28



26.	28	34
27.	32	30
28.	32	40
29.	24	34
30.	30	20
31.	28	38
32.	24	26
33.	36	42
34.	28	20
35.	38	26
36.	20	36
37.	30	30
38.	26	32
39.	32	34
40.	30	20
41.	24	28
42.	36	32
43.	20	36
44.	32	24
45.	28	38
46.	36	44
47.	34	32
48.	26	30
49.	30	28
50.	32	26
51.	30	32
52.	34	38
53.	26	40
54.	28	36

## **APPENDIX X**

### **LESSON PLAN ON PEER-TEACHING: (EXPERIMENTAL GROUP)**

#### **LESSON ONE**

<b>SUBJECT:</b>	Economics
<b>TOPIC:</b>	Population
<b>SUB-TOPIC:</b>	Type of population
<b>INSTRUCTIONAL METHOD:</b>	Peer-teaching
<b>CLASS:</b>	SSS II
<b>NUMBER IN CLASS:</b>	52
<b>AGE:</b>	15-18 years
<b>Duration:</b>	40 minutes
<b>BEHAVIOURAL OBJECTIVES:</b>	By the end of the lesson, students should be able to:
	<ul style="list-style-type: none"><li>i. Define Population</li><li>ii. Identify types of population</li><li>iii. Mention types of population</li></ul>
<b>PREVIOUS KNOWLEDGE:</b>	Students have learnt about number of persons in their families.

**INTRODUCTION:** Teacher introduces the lesson by asking the students the following questions: i. How many are you in your family?

ii. How many are you in this class?

**PRESENTATION:** Teacher presents the lesson through the following steps:

**Step I:** Teacher defines the concept of population to students thus:

It is the total number of people that are living together in given geographical location. It could be a community or country.

**Step II:** Students and teacher identify the types of population thus:

- i. Overpopulation
- ii. Optimum population
- iii. Under population

**Step III:** Students and teacher explain the types of population.

**Step IV:** Students and Teacher allow for discussion on what have been learnt in step one and two to hear their findings.

**EVALUATION:** Students and teacher evaluate the lesson based on response to students on their findings and then teacher asks questions based on the lesson.

**CONCLUSION:** The teacher concludes the lesson after the students have answered the questions correctly. Then the teacher finds out the major point that contains the lesson.

## **APPENDIX XI**

### **LESSON PLAN ON PEER-TEACHING: (EXPERIMENTAL GROUP)**

#### **LESSON TWO**

SUBJECT:	Economics
TOPIC:	Population
SUB-TOPIC:	Type of Population
INSTRUCTIONAL METHOD:	Peer-teaching
CLASS:	SSII
NUMBER IN CLASS:	52
AGE:	15-18 years
DURATION:	40 Minutes

**BEHAVIOURAL OBJECTIVES:** By the end of the lesson, students should be able to:

- (i) Define the different types of population
- (ii) Identify type of population
- (iii) Write on types of population

**PREVIOUS KNOWLEDGE:** Students have taught the concept of population.

**INTRODUCTION:** Teacher introduces the lesson by asking the students the following questions:

- (i) what is the name given to an economic situation whereby the resources available are equal to the total number of persons living together within the society?
- (ii) what is name given to an economic situation whereby the resources available are less than the total number of persons living together within the society?
- (iii) what is name given to an economic situation whereby the resources available are greater than the total number of persons living together within the society?

PRESENTATION: Teacher presents the lesson through the following steps.

STEP I: The teacher and students identify the three types of population. These are: optimum population, under-population and over-population.

STEP II: The teacher and students define: optimum-population as the type of population whereby the available resources are exactly equal to the total number of persons living together within a given society.

STEP III: The teacher and students define: under-population as the type of population whereby the available resources are greater than the total number of persons living together within the society.

STEP IV: The teacher and students define: over-population as the type of population whereby the available resources are less than the total number of persons living together within the society.

EVALUATION: The teacher evaluates the lesson by asking the students the following questions: (i) Mention the three types of population you have learnt.

(ii) Differentiate the three types of population you have learnt.

CONCLUSION: The teacher concludes the lesson by pin-pointing out the major differences between the three types of population.

## **APPENDIX XII**

### **LESSON PLAN ON PEER-TEACHING: (EXPERIMENTAL GROUP).**

#### **LESSON THREE**

<b>SUBJECT:</b>	Economics
<b>TOPIC:</b>	Theory of Cost
<b>SUB-TOPIC:</b>	Types of Cost
<b>INSTRUCTION METHOD:</b>	Peer-teaching
<b>CLASS:</b>	SS II
<b>NUMBER IN CLASS:</b>	52
<b>AGE:</b>	15-18 years
<b>DURATION:</b>	40 minutes
<b>BEHAVIOUAL OBJECTIVES:</b>	By the end of the lesson students should be able to:  (i) Define cost of production  (ii) List types of cost  (iii) Identify types of cost

**PREVIOUS KNOWLEDGE:** Students have learnt about payments on production of goods and services.

INTRODUCTION: The teacher presents the lesson by asking the students the following questions: (i) what are the raw material for producing bread? (ii) does producer of bread exchange money for his/her raw materials?

PRESENTATION: The teacher presents the lesson through the following steps:

STEP I: Teacher identifies the different types of cost which are: total cost, fixed cost, variable cost, average variable cost and marginal cost.

STEP II: Teacher defines cost of production as the sum total of all payment to factors of production used in the production of goods and services.

STEP III: Teacher defines fixed cost as the cost of an enterprise which does not change as output changes.

STEP IV: Teacher defines total cost as the sum of fixed cost and variable cost incurred by an enterprise in the production of goods and services.

STEP V: Teacher differentiates clearly between fixed and variable costs.

EVALUATION: Teacher evaluates the lesson by asking the students the following questions: (i) What is cost of production? (ii) Mention the types of cost of have learnt.

CONCLUSION: The teacher concludes the lesson by emphasizing on the key areas of the lesson



## **APPENDIX XIII**

### **LESSON PLAN ON PEER- TEACHING: (EXPERIMENTAL GROUP)**

#### **LESSON FOUR**

<b>SUBJECT:</b>	Economics
<b>TOPIC:</b>	Cost of Production
<b>SUB-TOPIC:</b>	Variable and Average variable costs
<b>INSTRUCTIONAL METHOD:</b>	Peer-teaching
<b>CLASS:</b>	SS II
<b>NUMBER IN CLASS:</b>	52
<b>AGE:</b>	15-18 years
<b>DURATION:</b>	40 minutes
<b>BEHAVIOURAL OBJECTIVES:</b>	By the end of the lesson students should be able to:  (i) Define variable and average variable costs  (ii) Identify the components of variable and average variable costs  (iii) Draw diagram showing variable and average variable costs.

**PREVIOUS KNOWLEDGE:** Students have learnt about cost of production.

**INTRODUCTION:** Teacher asks the students the following questions: (i) What is fixed cost? (ii) What is total cost?

**PRESENTATION:** The teacher presents the lesson through the following steps.

STEP I: Teacher defines variable cost. Variable cost is the cost of production which varies directly with the level of output.

STEP II: Teacher gives examples of variable cost of bread baking firm as: sugar, flour, water, butter, yeast and salts

STEP III: Teacher defines average variable cost. Average variable cost is the cost per unit of variable cost of output. As production increases, average variable cost may rise or fall.

STEP IV: Teacher differentiates succinctly between variable and average variable costs.

EVALUATION: Teacher evaluates the lesson by asking the students the following questions: (i) define variable and average variable costs (ii) describe the components of variable cost.

CONCLUSION: Teacher concludes the lesson by pointing out the major differences between variable and average variable costs.

## **APPENDIX XIV**

### **LESSON PLAN ON PEER- TEACHING: (EXPERIMENTAL GROUP).**

#### **LESSON FIVE**

SUBJECT:	Economics
TOPIC:	Division of Labour
SUB-TOPIC:	Division of Labour
INSTRUCTION METHOD:	Peer-teaching
CLASS:	SSII
NUMBER IN CLASS:	52
AGE:	15-18 years
DURATION:	40 Minutes

BEHAVIOURAL OBJECTIVES: By the end of the lesson students should be able to:

- (i) Define division of labour
- (ii) Differentiate division of labour and specialization
- (iii) Describe condition necessary for division of labour

PREVIOUS KNOWLEDGE: Students have been taught the concept of labour.

INTRODUCTION: The teacher introduces the lesson by asking the students to define labour. Labour is defined as human efforts both physical and mental put into the production of goods and services to satisfy human wants.

PRESENTATION: The teacher presents the lesson through the following steps.

STEP I: Teacher defines division of labour. Division of labour is the breaking up of a production process into a number of separate operations, whereby each operation is performed by a person or group of persons.

STEP II: Teacher defines specialization. Division of labour is one aspect of specialization. Specialization is a result of division of labour. It is defined as the concentration of the productive efforts of an individual, a firm or a country in a given aspect of economic activity.

STEP III: Teacher identifies and explains the following types of specialization and division of labour. They are: specialization by product, specialization by sex, specialization by process and geographical specialization.

STEP IV: Teacher identifies and explains the merits of division of labour. (i) it saves time (ii) it increases output level (iii) less fatigue (iv) lower unit cost (v) leads to specialization.

STEP V: Teacher identifies and explains the demerits of division of labour. (i) decline in craftsmanship (ii) monotony (iii) problems of mobility of labour (iv) problems from increased interdependence (v) reduction in employment opportunities.

EVALUATION: Teacher evaluates the lesson by asking the students the following:

- (i) What is division of labour
- (ii) Differentiate between division of labour and specialization
- (iii) Describe are the conditions that are necessary for division of labour.

CONCLUSION: Teacher concludes the lesson by emphasizing on the major points of the lesson.

## **APPENDIX XV**

### **LESSON PLAN ON PEER-TEACHING: (EXPERIMENTAL GROUP)**

#### **LESSON SIX**

<b>SUBJECT:</b>	Economics
<b>TOPIC:</b>	Production
<b>SUB-TOPIC:</b>	Factors of Production
<b>INSTRUCTIONAL METHOD:</b>	Peer-teaching
<b>CLASS:</b>	SSII
<b>NUMBER IN CLASS:</b>	52
<b>AGE:</b>	15-18 years
<b>DURATION:</b>	40 minutes
<b>BEHAVIOURAL OBJECTIVES:</b>	By the end of the lesson students should be able to:

- (i) Define production
- (ii) Identify the factors of production
- (iii) Differentiate one from another all the factors of production

**PREVIOUS KNOWLEDGE:** Students have knowledge of production from their homes.

**INTRODUCTION:** The teacher introduces the lesson by explaining the concept of production. Production is defined as the changing of raw materials into finished goods for human consumption.

**PRESENTATION:** The teacher presents the lesson through the following steps.

STEP I: Teacher identifies the factors of production. The factors of production are: land, labour, capital and entrepreneur.

STEP II: Teacher defines land. Land is defined as all the free gift of nature which includes the earth surface, trees, mountains, ocean, sea and the atmosphere.

STEP III: Teacher defines labour. Labour is defined as all human efforts both physical and mental put into the production of goods and services to satisfy human wants.

STEP IV: Teacher defines capital.

STEP V: Teacher defines entrepreneur.

STEP VI: Teacher identifies the rewards for factors of production. The reward for land as a factor of production is rent; the reward for labour is wages/salaries; reward for capital is interest and reward for entrepreneur is called profit.

EVALUATION: Teacher evaluates the lesson by asking the students the following questions: (i) mention the factors of production you know (ii) what are the reward for the factors of production? (iii) identify the most important factor of production?

CONCLUSION: Teacher concludes the lesson by emphasizing on the major points in the lesson.

## APPENDIX XVI

### LESSON PLAN ON PEER-TEACHING: (EXPERIMENTAL GROUP).

#### LESSON SEVEN

SUBJECT:	Economics
TOPIC:	Budget
SUB-TOPIC:	Types of Budget
INSTRUCTIONAL METHOD:	Peer-teaching
CLASS:	SS II
NUMBE IN CLASS:	52
AGE:	15-18 years
DURATION:	40 minutes

BEHAVIOURAL OBJECTIVES: By the end of the lesson students should be able to:

- (i) Define budget
- (ii) Identify types of budget
- (iii) Uses of budget

PREVIOUS KNOWLEDGE: Students have the knowledge of planning how to get and spend their money.



INTRODUCTION: Teacher introduces the lesson by defining the concept of budget. Budget is defined as a financial record showing the estimation of the expected income and expenditure of a country over a specific period of time usually a year.

PRESENTATION: The teacher presents the lesson through the following steps

STEP I: Teacher identifies the various types of budget. Budget is classified into three categories. These are: deficit, balance and surplus budget.

STEP II: Teacher defines deficit budget. Deficit budget is an economic situation whereby the estimated income is less than the estimated expenditure of a given country.

STEP III: Teacher illustrates a country experiencing deficit budget. A country whose estimated income for the year is one hundred million and her estimated expenditure for the same year is one hundred and fifty million; is said to be experiencing deficit budget.

STEP IV: Teacher defines balance budget. A budget is said to balance if and only if the expected income and the expected expenditure of a given country is exactly equal.

STEP V: Teacher illustrates a country experiencing balance budget. A country whose estimated income for the year is one hundred million and her estimated expenditure for the same year is one hundred million; is said to be experiencing balance budget.

STEP VI: Teacher defines surplus budget. Surplus budget is an economic situation whereby the estimated income is greater than the estimated expenditure of given country.

STEP VII: Teacher illustrates a country experiencing surplus budget. A country whose estimated income for the year is one hundred and fifty million and her estimated expenditure for the same year is one hundred million.

EVALUATION: Teacher evaluates the lesson by asking the students the following questions: (i) define budget (ii) mention the three types of budget you know (iii) differentiate between deficit and surplus budget.

CONCLUSION: Teacher concludes the lesson by emphasizing on the major differences between the types of budget.

## **APPENDIX XVII**

### **LESSON PLAN ON PEER-TEACHING: (EXPERIMENTAL GROUP)**

#### **LESSON EIGHT**

<b>SUBJECT:</b>	ECONOMICS
<b>TOPIC:</b>	Budget
<b>SUB-TOPIC:</b>	Uses of Budget
<b>INSTRUCTIONAL METHOD:</b>	Peer-teaching
<b>CLASS:</b>	SS II
<b>NUMBER IN CLASS:</b>	52
<b>AGE:</b>	15-18 years
<b>DURATION:</b>	40 minutes

**BEHAVIOURAL OBJECTIVES:** By the end of the lesson students should be able to:

- (i) Identify the uses of budget
- (ii) Explain the uses of budget
- (iii) Describe the budgetary situation of a given country.

**PREVIOUS KNOWLEDGE:** Students have been taught types of budget.

**INTRODUCTION:** Teacher introduces the lesson by explaining how it is important to utilize the budget of a given country judiciously.

**PRESENTATION:** The teacher presents the lesson through the following steps.

STEP I: Teacher identify the following as some of the uses of budget: (i) budget is used as a means of raising revenue (ii) budget is used as a means of enhancing public welfare and reducing income inequality in the country (iii) it is used to correct balance of payment deficit (iv) it is used as a tool for economic planning (v) it used to control inflation

STEP II: Teacher explains each of the uses identified.

STEP III: Teacher asks the students to also identify some of the uses of budget.

STEP IV: Teacher explains further some of the uses of budget identified by the students.

EVALUATION: Teacher evaluates the lesson by asking the students the following questions: (i) mention three uses of budget (ii) how can a deficit budget be corrected?

CONCLUSION: Teacher concludes the lesson by emphasizing on the need to correct deficit budget.

## APPENDIX XVIII

### LESSON PLAN ON DISCOVERY: (EXPERIMENTAL GROUP)

#### LESSON ONE

SUBJECT:	Economics
TOPIC:	Population
SUB-TOPIC:	Type of population
INSTRUCTIONAL METHOD:	Discovery method
CLASS:	SSS II
NUMBER IN CLASS:	54
AGE:	15-18 years
Duration:	40 minutes
BEHAVIOURAL OBJECTIVES:	By the end of the lesson, students should be able to:
	<ol style="list-style-type: none"><li>i. Define Population</li><li>ii. Identify types of population</li><li>iii. Mention types of population</li></ol>

PREVIOUS KNOWLEDGE: Students have learnt about number of persons in their families.

INTRODUCTION: Teacher introduces the lesson by asking the students the following questions: i. How many are you in your family?

ii. How many are you in this class?

PRESENTATION: Teacher presents the lesson through the following steps:

Step I: Teacher defines the concept of population to students thus:

It is the total number of people that are living together in given geographical location. It could be a community or country.

Step II: Students and teacher identify the types of population thus:

- iv. Overpopulation
- v. Optimum population
- vi. Under population

Step III: Students and teacher explain the types of population.

Step IV: Students and Teacher allow for discussion on what have been learnt in step one and two to hear their findings.

EVALUATION: Students and teacher evaluate the lesson based on response to students on their findings and then teacher asks questions based on the lesson.

CONCLUSION: The teacher concludes the lesson after the students have answered the questions correctly. Then the teacher finds out the major point that contains the lesson.

## **APPENDIX XIX**

### **LESSON PLAN ON DISCOVERY METHOD: (EXPERIMENTAL GROUP).**

#### **LESSON TWO**

<b>SUBJECT:</b>	Economics
<b>TOPIC:</b>	Population
<b>SUB-TOPIC:</b>	Type of Population
<b>INSTRUCTIONAL METHOD:</b>	Discovery method
<b>CLASS:</b>	SSII
<b>NUMBER IN CLASS:</b>	54
<b>AGE:</b>	15-18 years
<b>DURATION:</b>	40 Minutes

**BEHAVIOURAL OBJECTIVES:** By the end of the lesson, students should be able to:

- (i) Define the different types of population
- (ii) Identify type of population
- (iii) Write on types of population

**PREVIOUS KNOWLEDGE:** Students have taught the concept of population.

**INTRODUCTION:** Teacher introduces the lesson by asking the students the following questions:

(i) what is the name given to an economic situation whereby the resources available are equal to the total number of persons living together within the society?

(ii) what is name given to an economic situation whereby the resources available are less than the total number of persons living together within the society?

(iii) what is name given to an economic situation whereby the resources available are greater than the total number of persons living together within the society?

PRESENTATION: Teacher presents the lesson through the following steps.

STEP I: The teacher and students identify the three types of population. These are: optimum population, under-population and over-population.

STEP II: The teacher and students define: optimum-population as the type of population whereby the available resources are exactly equal to the total number of persons living together within a given society.

STEP III: The teacher and students define: under-population as the type of population whereby the available resources are greater than the total number of persons living together within the society.

STEP IV: The teacher and students define: over-population as the type of population whereby the available resources are less than the total number of persons living together within the society.

EVALUATION: The teacher evaluates the lesson by asking the students the following questions: (i) Mention the three types of population you have learnt.



(ii) Differentiate the three types of population you have learnt.

CONCLUSION: The teacher concludes the lesson by pin-pointing out the major differences between the three types of population.

**APPENDIX XX**  
**LESSON PLAN ON DISCOVERY METHOD: (EXPERIMENTAL GROUP).**  
**LESSON THREE**

SUBJECT:	Economics
TOPIC:	Theory of Cost
SUB-TOPIC:	Types of Cost
INSTRUCTION METHOD:	Discovery method
CLASS:	SS II
NUMBER IN CLASS:	54
AGE:	15-18 years
DURATION:	40 minutes
BEHAVIOUAL OBJECTIVES:	By the end of the lesson students should be able to:
	(i) Define cost of production
	(ii) List types of cost
	(iii) Identify types of cost

PREVIOUS KNOWLEDGE: Students have learnt about payments on production of goods and services.

**INTRODUCTION:** The teacher presents the lesson by asking the students the following questions: (i) what are the raw material for producing bread? (ii) does producer of bread exchange money for his/her raw materials?

**PRESENTATION:** The teacher presents the lesson through the following steps:

**STEP I:** Teacher identifies the different types of cost which are: total cost, fixed cost, variable cost, average variable cost and marginal cost.

**STEP II:** Teacher defines cost of production as the sum total of all payment to factors of production used in the production of goods and services.

**STEP III:** Teacher defines fixed cost as the cost of an enterprise which does not change as output changes.

**STEP IV:** Teacher defines total cost as the sum of fixed cost and variable cost incurred by an enterprise in the production of goods and services.

**STEP V:** Teacher differentiates clearly between fixed and variable costs.

**EVALUATION:** Teacher evaluates the lesson by asking the students the following questions: (i) what is cost of production? (ii) mention the types of cost of have learnt.

**CONCLUSION:** The teacher concludes the lesson by emphasizing on the key areas of the lesson.

**APPENDIX XXI**  
**LESSON PLAN ON DISCOVERY METHOD: (EXPERIMENTAL GROUP)**  
**LESSON FOUR**

SUBJECT:	Economics
TOPIC:	Cost of Production
SUB-TOPIC:	Variable and Average variable costs
INSTRUCTIONAL METHOD:	Discovery method
CLASS:	SS II
NUMBER IN CLASS:	54
AGE:	15-18 years
DURATION:	40 minutes

BEHAVIOURAL OBJECTIVES: By the end of the lesson students should be able to:

- (i) Define variable and average variable costs
- (ii) Identify the components of variable and average variable costs
- (iii) Draw diagram showing variable and average variable costs.

PREVIOUS KNOWLEDGE: Students have learnt about cost of production.

INTRODUCTION: Teacher asks the students the following questions: (i) What is fixed cost? (ii) What is total cost?

PRESENTATION: The teacher presents the lesson through the following steps.

STEP I: Teacher defines variable cost. Variable cost is the cost of production which varies directly with the level of output.

STEP II: Teacher gives examples of variable cost of bread baking firm as: sugar, flour, water, butter, yeast and salts

STEP III: Teacher defines average variable cost. Average variable cost is the cost per unit of variable cost of output. As production increases, average variable cost may rise or fall.

STEP IV: Teacher differentiates succinctly between variable and average variable costs.

EVALUATION: Teacher evaluates the lesson by asking the students the following questions: (i) define variable and average variable costs (ii) describe the components of variable cost.

CONCLUSION: Teacher concludes the lesson by pointing out the major differences between variable and average variable costs.

## **APPENDIX XXII**

### **LESSON PLAN ON DISCOVERY METHOD: (EXPERIMENTAL GROUP).**

#### **LESSON FIVE**

SUBJECT:	Economics
TOPIC:	Division of Labour
SUB-TOPIC:	Division of Labour
INSTRUCTION METHOD:	Discovery method
CLASS:	SSII
NUMBER IN CLASS:	54
AGE:	15-18 years
DURATION:	40 Minutes

**BEHAVIOURAL OBJECTIVES:** By the end of the lesson students should be able to:

- (i) Define division of labour
- (ii) Differentiate division of labour and specialization
- (iii) Describe condition necessary for division of labour

**PREVIOUS KNOWLEDGE:** Students have been taught the concept of labour.

**INTRODUCTION:** The teacher introduces the lesson by asking the students to define labour. Labour is defined as human efforts both physical and mental put into the production of goods and services to satisfy human wants.

**PRESENTATION:** The teacher presents the lesson through the following steps.

STEP I: Teacher defines division of labour. Division of labour is the breaking up of a production process into a number of separate operations, whereby each operation is performed by a person or group of persons.

STEP II: Teacher defines specialization. Division of labour is one aspect of specialization. Specialization is a result of division of labour. It is defined as the concentration of the productive efforts of an individual, a firm or a country in a given aspect of economic activity.

STEP III: Teacher identifies and explains the following types of specialization and division of labour. They are: specialization by product, specialization by sex, specialization by process and geographical specialization.

STEP IV: Teacher identifies and explains the merits of division of labour. (i) it saves time (ii) it increases output level (iii) less fatigue (iv) lower unit cost (v) leads to specialization.

STEP V: Teacher identifies and explains the demerits of division of labour. (i) decline in craftsmanship (ii) monotony (iii) problems of mobility of labour (iv) problems from increased interdependence (v) reduction in employment opportunities.

EVALUATION: Teacher evaluates the lesson by asking the students the following:

- (i) What is division of labour
- (ii) Differentiate between division of labour and specialization
- (iii) Describe are the conditions that are necessary for division of labour.

CONCLUSION: Teacher concludes the lesson by emphasizing on the major points of the lesson.

### **APPENDIX XXIII**

#### **LESSON PLAN ON DISCOVERY METHOD: (EXPERIMENTAL GROUP)**

##### **LESSON SIX**

SUBJECT: Economics

TOPIC: Production

SUB-TOPIC: Factors of Production

INSTRUCTIONAL METHOD: Discovery method

CLASS: SSII

NUMBER IN CLASS: 54

AGE: 15-18 years

DURATION: 40 minutes

BEHAVIOURAL OBJECTIVES: By the end of the lesson students should be able to:

- (iv) Define production
- (v) Identify the factors of production
- (vi) Differentiate one from another all the factors of production

PREVIOUS KNOWLEDGE: Students have knowledge of production from their homes.



**INTRODUCTION:** The teacher introduces the lesson by explaining the concept of production. Production is defined as the changing of raw materials into finished goods for human consumption.

**PRESENTATION:** The teacher presents the lesson through the following steps.

**STEP I:** Teacher identifies the factors of production. The factors of production are: land, labour, capital and entrepreneur.

**STEP II:** Teacher defines land. Land is defined as all the free gift of nature which includes the earth surface, trees, mountains, ocean, sea and the atmosphere.

**STEP III:** Teacher defines labour. Labour is defined as all human efforts both physical and mental put into the production of goods and services to satisfy human wants.

**STEP IV:** Teacher defines capital.

**STEP V:** Teacher defines entrepreneur.

**STEP VI:** Teacher identify the rewards for factors of production. The reward for land as a factor of production is rent; the reward for labour is wages/salaries; reward for capital is interest and reward for entrepreneur is called profit.

**EVALUATION:** Teacher evaluates the lesson by asking the students the following questions: (i) mention the factors of production you know (ii) what are the reward for the factors of production? (iii) Identify the most important factor of production?

**CONCLUSION:** Teacher concludes the lesson by emphasizing on the major points in the lesson.

**APPENDIX XXIV**

**LESSON PLAN ON DISCOVERY METHOD: (EXPERIMENTAL GROUP).**

**LESSON SEVEN**

SUBJECT:	Economics
TOPIC:	Budget
SUB-TOPIC:	Types of Budget
INSTRUCTIONAL METHOD:	Discovery method
CLASS:	SS II
NUMBE IN CLASS:	54
AGE:	15-18 years
DURATION:	40 minutes

**BEHAVIOURAL OBJECTIVES:** By the end of the lesson students should be able to:

- (i) Define budget
- (ii) Identify types of budget
- (iii) Uses of budget

**PREVIOUS KNOWLEDGE:** Students have the knowledge of planning how to get and spend their money.

INTRODUCTION: Teacher introduces the lesson by defining the concept of budget. Budget is defined as a financial record showing the estimation of the expected income and expenditure of a country over a specific period of time usually a year.

PRESENTATION: The teacher presents the lesson through the following steps

STEP I: Teacher identifies the various types of budget. Budget is classified into three categories. These are: deficit, balance and surplus budget.

STEP II: Teacher defines deficit budget. Deficit budget is an economic situation whereby the estimated income is less than the estimated expenditure of a given country.

STEP III: Teacher illustrates a country experiencing deficit budget. A country whose estimated income for the year is one hundred million and her estimated expenditure for the same year is one hundred and fifty million; is said to be experiencing deficit budget.

STEP IV: Teacher defines balance budget. A budget is said to balance if and only if the expected income and the expected expenditure of a given country is exactly equal.

STEP V: Teacher illustrates a country experiencing balance budget. A country whose estimated income for the year is one hundred million and her estimated expenditure for the same year is one hundred million; is said to be experiencing balance budget.

STEP VI: Teacher defines surplus budget. Surplus budget is an economic situation whereby the estimated income is greater than the estimated expenditure of given country.

STEP VII: Teacher illustrates a country experiencing surplus budget. A country whose estimated income for the year is one hundred and fifty million and her estimated expenditure for the same year is one hundred million.

EVALUATION: Teacher evaluates the lesson by asking the students the following questions: (i) define budget (ii) mention the three types of budget you know (iii) differentiate between deficit and surplus budget.

CONCLUSION: Teacher concludes the lesson by emphasizing on the major differences between the types of budget.



**APPENDIX XXV**  
**LESSON PLAN ON DISCOVERY METHOD (EXPERIMENTAL GROUP)**  
**LESSON EIGHT**

SUBJECT:	ECONOMICS
TOPIC:	Budget
SUB-TOPIC:	Uses of Budget
INSTRUCTIONAL METHOD:	Discovery method
CLASS:	SS II
NUMBER IN CLASS:	54
AGE:	15-18 years
DURATION:	40 minutes

**BEHAVIOURAL OBJECTIVES:** By the end of the lesson students should be able to:

- (i) Identify the uses of budget
- (ii) Explain the uses of budget
- (iii) Describe the budgetary situation of a given country.

**PREVIOUS KNOWLEDGE:** Students have been taught types of budget.

**INTRODUCTION:** Teacher introduces the lesson by explaining how it is important to utilize the budget of a given country judiciously.

**PRESENTATION:** The teacher presents the lesson through the following steps.

STEP I: Teacher identify the following as some of the uses of budget: (i) budget is used as a means of raising revenue (ii) budget is used as a means of enhancing public welfare and reducing income inequality in the country (iii) it is used to correct balance of payment deficit (iv) it is used as a tool for economic planning (v) it used to control inflation

STEP II: Teacher explains each of the uses identified.

STEP III: Teacher asks the students to also identify some of the uses of budget.

STEP IV: Teacher explains further some of the uses of budget identified by the students.

EVALUATION: Teacher evaluates the lesson by asking the students the following questions: (i) mention three uses of budget (ii) how can a deficit budget be corrected?

CONCLUSION: Teacher concludes the lesson by emphasizing on the need to correct deficit budget.

**APPENDIX XXVI**  
**LESSON PLAN ON CONTROL GROUP**  
**LESSON ONE**

SUBJECT: Economics

TOPIC: Population

SUB-TOPIC: Type of population

INSTRUCTIONAL METHOD: Conventional method

CLASS: SSS II

NUMBER IN CLASS: 54

AGE: 15-18 years

Duration: 40 minutes

- i. BEHAVIOURAL OBJECTIVES: By the end of the lesson, students should be able to:
- ii. Define Population
- iii. Identify types of population
- iv. Mention types of population

PREVIOUS KNOWLEDGE: Students have learnt about number of persons in their families.

INTRODUCTION: Teacher introduces the lesson by asking the students the following questions: i. How many are you in your family?



ii. How many are you in this class?

PRESENTATION: Teacher presents the lesson through the following steps:

Step I: Teacher defines the concept of population to students thus:

It is the total number of people that are living together in given geographical location. It could be a community or country.

Step II: Students and teacher identify the types of population thus:

- i. Overpopulation
- ii. Optimum population
- iii. Under population

Step III: Students and teacher explain the types of population.

Step IV: Students and Teacher allow for discussion on what have been learnt in step one and two to hear their findings.

EVALUATION: Students and teacher evaluate the lesson based on response to students on their findings and then teacher asks questions based on the lesson.

CONCLUSION: The teacher concludes the lesson after the students have answered the questions correctly. Then the teacher finds out the major point that contains the lesson.

**APPENDIX XXVII**  
**LESSON PLAN ON CONTROL GROUP**  
**LESSON TWO**

SUBJECT:	Economics
TOPIC:	Population
SUB-TOPIC:	Type of Population
INSTRUCTIONAL METHOD:	Conventional method
CLASS:	SSII
NUMBER IN CLASS:	54
AGE:	15-18 years
DURATION:	40 Minutes

BEHAVIOURAL OBJECTIVES: By the end of the lesson, students should be able to:

- (i) Define the different types of population
- (ii) Identify type of population
- (iii) Write on types of population

PREVIOUS KNOWLEDGE: Students have taught the concept of population.

INTRODUCTION: Teacher introduces the lesson by asking the students the following questions:

(i) what is the name given to an economic situation whereby the resources available are equal to the total number of persons living together within the society?

(ii) what is name given to an economic situation whereby the resources available are less than the total number of persons living together within the society?

(iii) what is name given to an economic situation whereby the resources available are greater than the total number of persons living together within the society?

PRESENTATION: Teacher presents the lesson through the following steps.

STEP I: The teacher and students identify the three types of population. These are: optimum population, under-population and over-population.

STEP II: The teacher and students define: optimum-population as the type of population whereby the available resources are exactly equal to the total number of persons living together within a given society.

STEP III: The teacher and students define: under-population as the type of population whereby the available resources are greater than the total number of persons living together within the society.

STEP IV: The teacher and students define: over-population as the type of population whereby the available resources are less than the total number of persons living together within the society.

EVALUATION: The teacher evaluates the lesson by asking the students the following questions: (i) Mention the three types of population you have learnt.

(ii) Differentiate the three types of population you have learnt.

CONCLUSION: The teacher concludes the lesson by pin-pointing out the major differences between the three types of population.

**APPENDIX XXVIII**  
**LESSON PLAN ON CONTROL GROUP**  
**LESSON THREE**

SUBJECT:	Economics
TOPIC:	Theory of Cost
SUB-TOPIC:	Types of Cost
INSTRUCTION METHOD:	Conventional method
CLASS:	SS II
NUMBER IN CLASS:	54
AGE:	15-18 years
DURATION:	40 minutes
BEHAVIOUAL OBJECTIVES:	By the end of the lesson students should be able to:  (i) Define cost of production  (ii) List types of cost  (iii) Identify types of cost

**PREVIOUS KNOWLEDGE:** Students have learnt about payments on production of goods and services.

**INTRODUCTION:** The teacher presents the lesson by asking the students the following questions: (i) what are the raw material for producing bread? (ii) does producer of bread exchange money for his/her raw materials?

**PRESENTATION:** The teacher presents the lesson through the following steps:

**STEP I:** Teacher identifies the different types of cost which are: total cost, fixed cost, variable cost, average variable cost and marginal cost.

**STEP II:** Teacher defines cost of production as the sum total of all payment to factors of production used in the production of goods and services.

**STEP III:** Teacher defines fixed cost as the cost of an enterprise which does not change as output changes.

**STEP IV:** Teacher defines total cost as the sum of fixed cost and variable cost incurred by an enterprise in the production of goods and services.

**STEP V:** Teacher differentiates clearly between fixed and variable costs.

**EVALUATION:** Teacher evaluates the lesson by asking the students the following questions: (i) what is cost of production? (ii) mention the types of cost of have learnt.

**CONCLUSION:** The teacher concludes the lesson by emphasizing on the key areas of the lesson.

**APPENDIX XXIX**  
**LESSON PLAN ON CONTROL GROUP**  
**LESSON FOUR**

SUBJECT: Economics

TOPIC: Cost of Production

SUB-TOPIC: Variable and Average variable costs

INSTRUCTIONAL METHOD: Conventional method

CLASS: SS II

NUMBER IN CLASS: 54

AGE: 15-18 years

DURATION: 40 minutes

BEHAVIOURAL OBJECTIVES: By the end of the lesson students should be able to:

- (i) Define variable and average variable costs
- (ii) Identify the components of variable and average variable costs
- (iii) Draw diagram showing variable and average variable costs.

PREVIOUS KNOWLEDGE: Students have learnt about cost of production.

INTRODUCTION: Teacher asks the students the following questions: (i) what is fixed cost? (ii) what is total cost?

PRESENTATION: The teacher presents the lesson through the following steps.

STEP I: Teacher defines variable cost. Variable cost is the cost of production which varies directly with the level of output.

STEP II: Teacher gives examples of variable cost of bread baking firm as: sugar, flour, water, butter, yeast and salts

STEP III: Teacher defines average variable cost. Average variable cost is the cost per unit of variable cost of output. As production increases, average variable cost may rise or fall.

STEP IV: Teacher differentiates succinctly between variable and average variable costs.

EVALUATION: Teacher evaluates the lesson by asking the students the following questions: (i) define variable and average variable costs (ii) describe the components of variable cost.

CONCLUSION: Teacher concludes the lesson by pointing out the major differences between variable and average variable costs.



**APPENDIX XXX**  
**LESSON PLAN ON CONTROL GROUP**  
**LESSON FIVE**

SUBJECT: Economics

TOPIC: Division of Labour

SUB-TOPIC: Division of Labour

INSTRUCTION METHOD: Conventional method

CLASS: SSII

NUMBER IN CLASS: 54

AGE: 15-18 years

DURATION: 40 Minutes

BEHAVIOURAL OBJECTIVES: By the end of the lesson students should be able to:

- (i) Define division of labour
- (ii) Differentiate division of labour and specialization
- (iii) Describe condition necessary for division of labour

PREVIOUS KNOWLEDGE: Students have been taught the concept of labour.

INTRODUCTION: The teacher introduces the lesson by asking the students to define labour. Labour is defined as human efforts both physical and mental put into the production of goods and services to satisfy human wants.

PRESENTATION: The teacher presents the lesson through the following steps.

STEP I: Teacher defines division of labour. Division of labour is the breaking up of a production process into a number of separate operations, whereby each operation is performed by a person or group of persons.

STEP II: Teacher defines specialization. Division of labour is one aspect of specialization. Specialization is a result of division of labour. It is defined as the concentration of the productive efforts of an individual, a firm or a country in a given aspect of economic activity.

STEP III: Teacher identifies and explains the following types of specialization and division of labour. They are: specialization by product, specialization by sex, specialization by process and geographical specialization.

STEP IV: Teacher identifies and explains the merits of division of labour. (i) it saves time (ii) it increases output level (iii) less fatigue (iv) lower unit cost (v) leads to specialization.

STEP V: Teacher identifies and explains the demerits of division of labour. (i) decline in craftsmanship (ii) monotony (iii) problems of mobility of labour (iv) problems from increased interdependence (v) reduction in employment opportunities.

EVALUATION: Teacher evaluates the lesson by asking the students the following:

- (i) What is division of labour
- (ii) Differentiate between division of labour and specialization
- (iii) Describe are the conditions that are necessary for division of labour.

CONCLUSION: Teacher concludes the lesson by emphasizing on the major points of the lesson.

**APPENDIX XXXI**  
**LESSON PLAN ON CONTROL GROUP**

**LESSON SIX**

SUBJECT:	Economics
TOPIC:	Production
SUB-TOPIC:	Factors of Production
INSTRUCTIONAL METHOD:	Conventional method
CLASS:	SSII
NUMBER IN CLASS:	54
AGE:	15-18 years
DURATION:	40 minutes
BEHAVIOURAL OBJECTIVES:	By the end of the lesson students should be able to:
	(i) Define production
	(ii) Identify the factors of production
	(iii) Differentiate one from another all the factors of production

**PREVIOUS KNOWLEDGE:** Students have knowledge of production from their homes.

**INTRODUCTION:** The teacher introduces the lesson by explaining the concept of production. Production is defined as the changing of raw materials into finished goods for human consumption.

**PRESENTATION:** The teacher presents the lesson through the following steps.

STEP I: Teacher identifies the factors of production. The factors of production are: land, labour, capital and entrepreneur.

STEP II: Teacher defines land. Land is defined as all the free gift of nature which includes the earth surface, trees, mountains, ocean, sea and the atmosphere.

STEP III: Teacher defines labour. Labour is defined as all human efforts both physical and mental put into the production of goods and services to satisfy human wants.

STEP IV: Teacher defines capital.

STEP V: Teacher defines entrepreneur.

STEP VI: Teacher identifies the rewards for factors of production. The reward for land as a factor of production is rent; the reward for labour is wages/salaries; reward for capital is interest and reward for entrepreneur is called profit.

EVALUATION: Teacher evaluates the lesson by asking the students the following questions: (i) mention the factors of production you know (ii) what are the reward for the factors of production? (iii) identify the most important factor of production?

CONCLUSION: Teacher concludes the lesson by emphasizing on the major points in the lesson.

**APPENDIX XXXII**  
**LESSON PLAN ON CONTROL GROUP**  
**LESSON SEVEN**

SUBJECT:	Economics
TOPIC:	Budget
SUB-TOPIC:	Types of Budget
INSTRUCTIONAL METHOD:	Conventional method
CLASS:	SS II
NUMBE IN CLASS:	54
AGE:	15-18 years
DURATION:	40 minutes
BEHAVIOURAL OBJECTIVES:	By the end of the lesson students should be able to:
	(iv) Define budget
	(v) Identify types of budget
	(vi) Uses of budget

**PREVIOUS KNOWLEDGE:** Students have the knowledge of planning how to get and spend their money.

**INTRODUCTION:** Teacher introduces the lesson by defining the concept of budget. Budget is defined as a financial record showing the estimation of the expected income and expenditure of a country over a specific period of time usually a year.

**PRESENTATION:** The teacher presents the lesson through the following steps

**STEP I:** Teacher identifies the various types of budget. Budget is classified into three categories. These are: deficit, balance and surplus budget.

**STEP II:** Teacher defines deficit budget. Deficit budget is an economic situation whereby the estimated income is less than the estimated expenditure of a given country.

**STEP III:** Teacher illustrates a country experiencing deficit budget. A country whose estimated income for the year is one hundred million and her estimated expenditure for the same year is one hundred and fifty million; is said to be experiencing deficit budget.

**STEP IV:** Teacher defines balance budget. A budget is said to balance if and only if the expected income and the expected expenditure of a given country is exactly equal.

**STEP V:** Teacher illustrates a country experiencing balance budget. A country whose estimated income for the year is one hundred million and her estimated expenditure for the same year is one hundred million; is said to be experiencing balance budget.

**STEP VI:** Teacher defines surplus budget. Surplus budget is an economic situation whereby the estimated income is greater than the estimated expenditure of given country.

**STEP VII:** Teacher illustrates a country experiencing surplus budget. A country whose estimated income for the year is one hundred and fifty million and her estimated expenditure for the same year is one hundred million.

**EVALUATION:** Teacher evaluates the lesson by asking the students the following questions: (i) define budget (ii) mention the three types of budget you know (iii) differentiate between deficit and surplus budget.

CONCLUSION: Teacher concludes the lesson by emphasizing on the major differences between the types of budget.



**APPENDIX XXXIII**  
**LESSON PLAN ON CONTROL GROUP**  
**LESSON EIGHT**

SUBJECT: ECONOMICS

TOPIC: Budget

SUB-TOPIC: Uses of Budget

INSTRUCTIONAL METHOD: Conventional method

CLASS: SS II

NUMBER IN CLASS: 54

AGE: 15-18 years

DURATION: 40 minutes

BEHAVIOURAL OBJECTIVES: By the end of the lesson students should be able to:

- (i) Identify the uses of budget
- (ii) Explain the uses of budget
- (iii) Describe the budgetary situation of a given country.

PREVIOUS KNOWLEDGE: Students have been taught types of budget.

INTRODUCTION: Teacher introduces the lesson by explaining how it is important to utilize the budget of a given country curiously.

PRESENTATION: The teacher presents the lesson through the following steps.

STEP I: Teacher identify the following as some of the uses of budget: (i) budget is used as a means of raising revenue (ii) budget is used as a means of enhancing public welfare and reducing income inequality in the country (iii) it is used to correct balance of payment deficit (iv) it is used as a tool for economic planning (v) it used to control inflation

STEP II: Teacher explains each of the uses identified.

STEP III: Teacher asks the students to also identify some of the uses of budget.

STEP IV: Teacher explains further some of the uses of budget identified by the students.

EVALUATION: Teacher evaluates the lesson by asking the students the following questions: (i) mention three uses of budget (ii) how can a deficit budget be corrected?

CONCLUSION: Teacher concludes the lesson by emphasizing on the need to correct deficit budget.

**APPENDIX XXXIV**

**AVERAGE PERFORMANCE SCORES IN PEER-TEACHING AND  
DISCOVERY METHOD IN PRE-TEST AND POST- TEST**

**RAW SCORES OF THE TWO SETS OF TESTS FOR DETERMINING THE  
COEFFICIENT OF RELIABILITY OF THE TEST INSTRUMENT**

S/N	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	51	55	2601	3053	2818
2	62	60	3782	3540	3659
3	45	47	2003	2162	2081
4	53	54	2809	2889	2849
5	48	49	2328	2401	2364
6	46	48	2070	2280	2173
7	55	53	2998	2836	2915
8	49	58	2401	3393	2854
9	45	41	2003	1681	1835
10	63	59	3969	3452	3701
11	50	57	2500	3249	2850
12	58	58	3364	3335	3350
13	44	45	1958	2048	2002
14	51	52	2601	2652	2627
15	41	54	1702	2862	2207
16	42	45	1785	2003	1891
17	68	67	4556	4489	4523
18	52	56	2652	3164	2897
19	60	61	3630	3691	3660
20	53	55	2783	2970	2875
21	53	56	2836	3164	2995
22	46	41	2116	1640	1863
23	51	52	2627	2704	2665
24	46	50	2139	2500	2313
25	52	54	2704	2862	2782
26	26	28	676	770	722
27	52	53	2652	2809	2730
28	61	62	3721	3813	3767
29	50	52	2475	2730	2599
30	59	59	3422	3481	3452
31	52	51	2704	2601	2652
32	61	60	3691	3540	3615
33	61	59	3752	3481	3614
34	60	58	3600	3393	3495
35	55	55	2970	3053	3011
36	61	62	3691	3782	3736
37	64	65	4128	4258	4192
38	52	54	2730	2862	2795
39	48	47	2256	2209	2233
40	54	56	2916	3108	3011
	$\sum X = 2097$	$\sum Y = 2143$	$\sum X^2 = 112299$	$\sum Y^2 = 116910$	$\sum XY = 114369$

### Statistics for finding reliability

Pearson product moment correlation computed for the reliability index of the instrument used in the pilot study of the research.

The formula for Pearson product moment correlation is given as:

$$R = \frac{N(\sum xy) - (X)\sum Y}{(N(X^2) - (NY^2) - (Y)^2)}$$

N = Number of respondents

X = Test scores at first administration

Y = Test scores at second administration

$\sum Y$  = Scores at second administration summed

$\sum X$  = Scores at first administration summed

$\sum X^2$  = Scores at first administration squared and summed

$\sum y^2$  = Scores at second administration squared and summed

$(\sum X)^2$  = Scores at first administration summed and squared

$(\sum Y)^2$  = Scores at second administration summed and squared

**Where:**

N = 40	$\sum X = 2097$	$\sum Y = 2143$	$\sum X^2 = 112299$	$\sum Y^2 = 116910$	$\sum XY = 114369$
--------	-----------------	-----------------	---------------------	---------------------	--------------------

$$r = \frac{N(\sum xy) - (X)\sum Y}{(N(X^2) - (NY^2) - (Y)^2)}$$

$$r = \frac{40 \times 114369 - 2097 \times 2143}{40 \times (112299)^2 - 40 \times 116910 - (116910)^2}$$

$$r = 0.868$$

$$r = 0.87$$

**APPENDIX XXXV**

**PEER-TEACHING**

**AVERAGE PERFORMANCE SCORES OF ECONOMICS STUDENTS IN PRE-TEST AND POST-TEST**

**RAW SCORES OF THE TWO SETS OF TESTS FOR DETERMINING THE COEFFICIENT OF RELIABILITY OF THE TEST INSTRUMENT**

S/N	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	51	58	2601	3364	2958
2	52	50	2704	2500	2600
3	52	53	2704	2809	2756
4	52	55	2704	3025	2860
5	15	19	225	361	285
6	60	54	3600	2280	2173
7	53	50	2809	2500	2650
8	53	56	2809	3136	2968
9	57	53	3249	2809	3021
10	50	53	2500	2809	2650
11	62	60	3844	3600	3720
12	52	50	2704	2500	2600
13	53	50	2809	2500	2650
14	60	64	3600	4096	3840
15	50	48	2500	2304	2400
16	36	42	1296	1764	1512
17	53	57	2809	3249	3021
18	60	60	3600	3600	3600
19	51	50	2601	2500	2550
20	50	54	2500	2916	2700
21	50	56	2500	3136	2800
22	54	49	2916	2401	2646
23	52	50	2704	2500	2600
24	43	47	1849	2209	2021
25	18	22	324	484	396
26	18	22	324	484	396
27	57	60	3249	3600	3420
28	53	50	2809	2500	2650
29	45	44	2025	1936	1980
30	63	60	3969	3600	3780
31	53	50	2809	2500	2650
32	55	58	3025	3364	3190
33	58	58	3364	3364	3364
34	58	58	3364	3364	3364
35	41	46	1681	2116	1886
36	55	59	3025	3481	3245
37	55	59	3025	3481	3245
38	27	30	729	900	810
39	27	30	729	900	810
40	32	36	1024	1296	1152
	$\sum X = 1936$	$\sum Y = 1980$	$\sum X^2 = 99612$	$\sum Y^2 = 102874$	$\sum XY = 100986$

### Statistics for finding reliability

Pearson product moment correlation computed for the reliability index of the instrument used in the pilot study of the research.

The formular for Pearson product moment correlation is given as:

$$R = \frac{N(\sum xy) - (X)\sum Y}{(N(X^2) - (NY^2) - (Y)^2)}$$

N = Number of respondents

X = Test scores at first administration

Y = Test scores at second administration

$\sum Y$  = Scores at second administration summed

$\sum X$  = Scores at first administration summed

$\sum X^2$  = Scores at first administration squared and summed

$\sum y^2$  = Scores at second administration squared and summed

$(\sum X)^2$  = Scores at first administration summed and squared

$(\sum Y)^2$  = Scores at second administration summed and squared

**Where:**

N = 40	$\sum X = 1936$	$\sum Y = 1980$	$\sum X^2 =$	$\sum Y^2 =$	$\sum XY =$
			99612	102874	100986

$$r = \frac{N(\sum xy) - (X)\sum Y}{(N(X^2) - (NY^2) - (Y)^2)}$$

$$r = \frac{40 \times 100986 - 1936 \times 1980}{40 \times (99612)^2 - 40 \times 12874 - (102874)^2}$$

$$r = 0.792$$

$$r = 0.79$$



**APPENDIX XXXVI**

**DISCOVERY METHOD**

**AVERAGE PERFORMANCE SCORES OF ECONOMICS STUDENTS IN PRE-TEST AND POST-TEST**

**RAW SCORES OF THE TWO SETS OF TESTS FOR DETERMINING THE COEFFICIENT OF RELIABILITY OF THE TEST INSTRUMENT**

S/N	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	63	67	3969	4489	4221
2	63	60	3969	3600	3780
3	50	49	2500	2401	2450
4	52	56	2704	3136	2912
5	65	68	4225	4624	4420
6	62	67	3844	4489	4154
7	56	55	3136	3025	3080
8	52	76	2704	5776	3952
9	40	19	1600	361	760
10	80	50	6400	2500	4000
11	58	77	3364	5929	4466
12	53	49	2809	2401	2597
13	53	49	2809	2401	2597
14	67	60	4489	3600	4020
15	12	65	144	4225	780
16	48	50	2304	2500	2400
17	81	76	6561	5776	6156
18	53	65	2809	4225	3445
19	73	77	5329	5929	5621
20	46	49	2116	2401	2254
21	56	60	3136	3600	3360
22	68	42	4624	1764	2856
23	50	56	2500	3136	2800
24	50	56	2500	3136	2800
25	78	72	6084	5184	5616
26	15	10	225	100	150
27	51	48	2601	2304	2448
28	61	65	3721	4225	3965
29	64	68	4960	4624	4352
30	62	57	3844	3249	3534
31	52	46	2704	2116	2392
32	53	50	2809	2500	2650
33	63	49	3969	2401	3087
34	50	51	2500	2601	2550
35	67	62	4489	3844	4154
36	56	60	3136	3600	3360
37	63	60	3969	3600	3780
38	50	55	2500	3025	2750
39	50	54	2500	2916	2700
40	68	72	4624	5184	4896
	$\sum X = 2254$	$\sum Y = 2277$	$\sum X^2 = 134316$	$\sum Y^2 = 136897$	$\sum XY = 13265$

Statistics for finding reliability

Pearson product moment correlation computed for the reliability index of the instrument used in the pilot study of the research.

The formular for Pearson product moment correlation is given as:

$$r = \frac{N(\sum xy) - (X)\sum Y}{(N(X^2)) - (NY^2) - (Y)^2}$$

N = Number of respondents

X = Test scores at first administration

Y = Test scores at second administration

. $\sum Y$  = Scores at second administration summed

. $\sum X$  = Scores at first administration summed

. $\sum X^2$  = Scores at first administration squared and summed

. $\sum y^2$  = Scores at second administration squared and summed

. $(\sum X)^2$  = Scores at first administration summed and squared

. $(\sum Y)^2$  = Scores at second administration summed and squared

**Where:**

N = 40	$\sum X = 2254$	$\sum Y = 2277$	$\sum X^2 =$	$\sum Y^2 =$	$\sum XY =$
			134316	136897	132265

$$r = \frac{N(\sum xy) - (X)\sum Y}{(N(X^2)) - (NY^2) - (Y)^2}$$

$$r = \frac{40 \times 132265 - 2254 \times 2277}{40 \times (134316)^2 - 40 \times 136897 - (132265)^2}$$

$$r = 0.77$$

$$r = 0.77$$