

CHAPTER ONE

INTRODUCTION

Background to the Study

Education is a process by which the knowings, skills, tenets and principles of a society are transmitted from one generation to another through an unambiguous method of teaching. Therefore, teaching and learning at different stages of education is to convey an essential and permanent change in the behavior of learner. Efforts have been made to study teaching and improve it in order to make it realize subject centered objective of learning. Teaching involves setting appropriate learning expectations for students and for that purpose includes selection and sequencing of activities or kinds of interactions that would lead to expected learning. Learning was described as a process of active engagement; learning as individual and social; and learner differences as resources to be used, not obstacles to be confronted. In this vein, to expedite the method of knowledge transmission, teachers are meant to use a proper teaching methodology that's is in relative to the definite objectives and level of outcomes.

Economics is very important because it is a subject that stimulate growth in all ramification in the society. Presently, Economics is being taught in every secondary school especially at senior level, this act has been considered as an effective instrument to achieve the educational aims and intentions of the country. Further to this, Economics is a social science subjects that deal with the study of human behaviour and the study of scarcity of resources because the resources to satisfy unlimited human wants and needs are limited in supply hence there exists the need for choice making and prudent resolution. In this present

age, Economics has become an important subject to study in secondary school and no student should lack the rudiment knowledge of it by any reason because this will help them in day to day economic dealing and in their economic world. Dutuma (2014) revealed that Economics prepares one to deal with issues in a variety of fields including business, law, politics, history and accounting. It helps to understand how society affects purchasing decisions, helps in a civil service office, helps to prepare for future that affects career prospects, investment decisions and retirement strategies.

Furthermore, Yusuf (2010) opined that Economics is a concept that focus majorly on how people in the society make a sane and decent resolution as regards to what they make financially in relation to living and also how to make a decision between options to gratify their limitless wants. The researcher further illustrated that the subject focus on the culture of production which is geared at gratifying human wants. With the aforementioned assertion it may be concluded that Economics is more of human disposition. Economics is considered a discipline that covers the scope of humankind under the fields of study. Also, in the last updated National policy of education, economics is schedule to be taught after basic classes.

Teachers are saddled with the responsibility of facilitating learning to effectively impact knowledge in Economics like every other subject as the gap between teaching and learning must necessarily be connected. Ayeni (2011), express teaching to be a means of initiating a meaningful change in learner which may result to changes in learners' behavior to accomplish an unambiguous result. Equally, Ganyaupfu (2013) illustrated that it is very imperative for teachers to be familiar with diverse teaching ways and means which can be used to accommodate the nature of concepts to be taught, if teaching is to be productive. FRN,

(2014) emphasized the significance of Economics as a subject, it is an ingredient that can stimulate development in any given society, this act has prompt the incorporation of Economics to school curriculum most especially at senior level. However, this stance is well supported in the last edition of National Policy on Education. In this document, it was presented that Senior Secondary Education must be accorded with entrepreneurial skills for self-sufficiency and societal growth.

In the traditional epoch, many teaching practitioners widely applied teacher-centered methods to impart knowledge to the learners compared to student-centered method. Studies that focus majorly on teaching and learning have suggested that diverse teaching approaches must be considered to stimulate a better learning outcome among learner (Hightower, Delgado, Lloyd, Wittenstein, Sellers & Swanson, 2011). Slavin, (2011) discussed that method of teaching have shifted from an approach which is more focused on teacher to a modern system that is centered on learner. In respect to this, academic investigation has been set forth by different scholars to appraise the imperative role of cooperative learning. Cooperative learning is known to be more of mutual learning approach which is under the purview of the student and it is different from the regular teaching method. It has been reiterated that Cooperative learning is good for students because in most situation it affects the academic outcome of learners positively (Tran & Lewis, 2012).

Similarly, Johnson and Stanne (2000) pointed out that a teaching method provides a framework for interaction among three variables (teacher, the learner and the subject matter). With the mixture of these three elements, such methods will assist the teacher to harness resources for producing certain learning experiences that lead to the attainment/achievement of set objectives in the long-run. The selection and proper usage of the appropriate and most

effective method(s) is very crucial to the success of a lesson because a teaching method determines whether a teacher is communicating with his students or not and consequently the extent and depth to which the lesson objectives would be achieved. The purpose of teaching and learning Economics in the classroom is to help students master the vital principles for understanding financial problems, economic issues and policy alternatives and consequently apply the economic perspective accurately and empirically (Khadka, 2016). This promotes a lasting student interest in economics and the economy (McConnell, Brue, & Flynn, 2009)

There have been concerted efforts by various researchers such as Alabi (2004) and Igueakporo (2005) at getting learners more actively involved in the learning process. This noble gesture has caused the researchers to come up with different and innovative method of teaching such as collaborative learning. This method boosts mental capacities and also increase participation in the class. Previous academic works have reiterated that students learn better when they are permitted to take part in the teaching-learning process. According to Hernandez (2002), cooperative learning is a multifaceted process which is develop to expedite functional learning and also advance critical thinking. Similarly, Teacher-Vision (2007) gave explanation and insight about cooperative learning. It is regarded as a teaching method that involves a small groups of students working together on a common task. This instructional method is an excellent way to allow students think critically without relying on the teacher for answers. Every associate of the group must learn at the same time thus producing an atmosphere of selflessness and excellence. Therefore, teaching activities, should involve both the students and the teacher.

Teaching activities that tend to place teacher's activities above student activities in the course of instructional delivery are recognized as teacher centered techniques. A good

example of this technique is the lecture method widely used in secondary and tertiary institutions of learning and it is often referred to as traditional or conventional instructional teaching technique. Conversely, teaching activities that promote and allow active students participation and engagement in classroom activities are preferably called student centered instructional techniques. Oludipe and Oludipe, (2010); Anyanwu, and Iwuamadi, (2015); Idogho (2016) all submitted that the Nigerian classroom were highly teacher-centered. This type of method creates passive audience among students because during lesson the teachers does the writing and chatting and the student is just expected to take note and write what the teachers is teaching. This method is considered to be less innovative because the teacher is the sole supplier of the teaching instruction, however, it has been disparaged as a one directional learning style that does not make students a point of attention.

It must be expressed that a productive learning is a sole function of teacher's activities in the classroom. Teaching method is very essential because it is a prerequisite for academic excellence. It should be recognized that the strategy used by the teachers account for the outcome of their teaching. In a research conducted by Adu, Ojelabi and Hammed (2009) on the achievement of economic students for a duration of 9 years (1996-2005), it was revealed that 26.2% of the students had grade A-C and 31.6% had between pass (P7-P8) while 41.9% failed. Adu, Ojelabi and Hammed (2009) also reviewed the results of 10 selected schools considering their WAEC May/June result between the year 2006-2015 and found that the academic outcome of Economics candidates was not encouraging as 36.6% of the students had grade A-C (1-6), 43.5% had between pass (7-8) and 18.7% failed. This report could be corroborated by the examiner's report obtained from both WAEC and NECO for academic outcome of Economics candidates between 2011 and 2017 as shown in Figure 1.

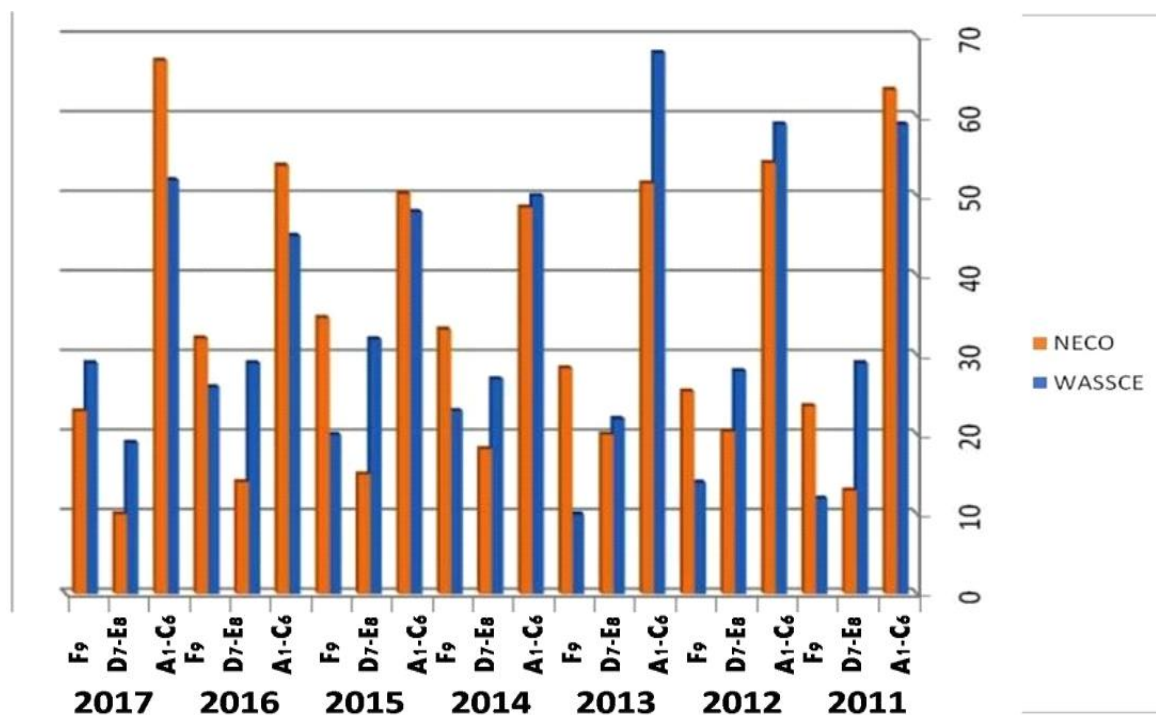


Figure 1: Trends of Students' Performance in WASSCE and NECO May/June Economics Examinations. Examiner's report obtained (WAEC and NECO), 2011 to 2017.

The West African Senior School Certificate Examination (WASSCE) result of senior school students' performance in Economics for the past few years also inveterate that the academic report of Economics students has been fluctuating. WAEC Economics result shown in figure 1 indicates the students whose scores range from A1-C6 to be 50-60% of the students who sat for examination in 2011 and 2012. There was a high increase of 68.45% in 2013 and a dismal decrease to 50.22%, 47.2% and 44.7% in 2014, 2015 and 2016 respectively. Similarly, the NECO result of senior school students' performance in Economics for the year 2011 to 2017 also inveterate that the academic report of Economics students has not been encouraging. The NECO Economics result shown in the figure 1 indicate the students whose scores range from A1-C6 to be 54.15 - 63.37% of the students who sat for examination in 2011 and 2012. There was drop of 51.6% in 2013 and a dismal decrease to 48.55%, 50.29%

and 53.82% in 2014, 2015 and 2016 respectively but it was increased in year 2017 to 67.01%. According to what is stated on the graph it can be deduced that the academic outcome of economics students is slightly beyond average. That is 50% of the students got the pass grades of A1 to C6.

Teacher centered teaching strategy has its own advantages, some drawbacks have been identified with the strategy such as lack of stimulation of students' innovations inquiry and scientific thinking leading to students cramming facts, which are easily forgotten (Adeyemi, 2008); high instructor dependency which kills students initiatives in learning, non-facilitation of Higher Cognitive and Meta-Cognitive Skills and monopolized and limited assessment among others (Kompa, 2012). This has made some authors to come up with a productive and teaching techniques that are student-focused. Giesen (2012) conveyed that different theories from the various schools of thought such as the social constructivist and psychological (cognitive) constructivist are unanimous in their argument that learning is productive when the receiver create their own knowledge collective with their colleagues in the class. Peer and Martin, (2005) stressed that in constructivist-based setting, a teacher is seen as a stimulator and not an ordinary medium for knowledge transmission. As a stimulator, the teacher also gives an inquisitive assignment to learners in order for them to be strengthened and capable.

The use of this theory has resulted to invention of strategies used in teaching. In the present age, to have an effective teaching that is student oriented there is need for introduction and application of cooperative learning techniques that will make student participate freely in class with their other peers and to also enable the teacher record huge success in class room teaching and learning activities. Some of these innovative and student-centered instructional strategies includes but not limited to Problem-Solving, Concept-Mapping, Gallery-Walk,

Mastery Learning Strategy (MLS), Jigsaw grouping (Jigsaw I, Jigsaw II, Jigsaw III and Jigsaw IV) and Social-Inquiry. Different kinds of cooperative techniques have been conducted in different settings of education. However, this present study is set out to examine the effects of two of these methods (i.e. Jigsaw II and STAD) on Economics Students' academic performance.

Jigsaw II technique was chosen being one of the pure cooperative strategies improved on by Slavin (2010) in order to make it more useful. Also, Jigsaw approach is flexible in its application with all learners working in small groups. According to Acikgoz (2001) Jigsaw II is based on group dynamics and social interactions. The jigsaw II method provides students with the opportunity to be actively involved with the learning process. With multiple exposures to this method, students should feel more comfortable with their roles. Some type of evaluation of the cooperative group could increase its effectiveness by adding accountability to each individual for the group performance (Lucas & Claxton, 2009).

The second innovative method of interest in this study is Student Teams-Achievement Division technique (STAD) this is known to be a cooperative form of learning that stimulate both collaborative and independent learning simultaneously (Rai, 2007). This occur while learners engage in mixed groups to assist one another to be more acquainted with their lesson after being taught by the teacher (Slavin, 2011). The groups get reward and praise based on the average marks of each team member. However, this entails four phases, which are class presentation, group discussion, testing and group recognition. The STAD method has consistently proved to be among the simplest and effective cooperative learning methods when it comes to improving student achievement of a well-defined objectives in various subjects (Tiantong & Teemuangsai, 2013). While STAD has been used in diverse subject

areas as Math, Languages, Arts, Social Studies, and Science, it is yet to be employed with the subject of Economics.

Previous studies show that academic achievement and interest have both been reported by various scholars and researchers to be influenced and affected by gender of the students. Onuka and Durowoju (2010) reported that gender did not play any significant role in students' achievement in essay writing and business studies respectively. Another research conducted by Onuka and Durowoju (2011) investigated the relationship between motivation and academic performance of both boys and girls who offers economics. The results revealed that gender has no significant influence on students' outcome in Economics. Gender alone cannot be used to explain how student's characteristic influences academic performance.

Furthermore, Yusuf (2004) opined that group composition has effect on student's achievement in cooperative and competitive method of teaching. It means that the composition and nature of the classroom interaction patterns among students affect their academic performance with learning and many researchers have focused their attention on studies related to science. The fore-going shows that some findings indicated that significant differences existed between the performances of the two sexual category in school (Igueakporo, 2005; Onuka & Durowoju, 2010; Onuka & Durowoju, 2011), while others showed that sex factor has no impact on student's performance (Yusuf, 2004; Alabi, 2004) and as such inconclusive. Therefore, this study examined the effectiveness of Jigsaw II and STAD on Secondary School Students' Economics performance in Okene, Nigeria while considering gender as a moderating variable for the study.

Statement of the Problem

A cross-sectional review of the performance of students in WAEC and NECO in Economics from 2011 to 2017 as shown in the preceding table reveals that about 50% of the students had A1 to C6. However, to change the narrative of remaining 50% who failed the subject calls for urgent attention as no student should lack the rudiment knowledge useful for day to day economic dealing in the 21st century. Various reasons have been attributed to students' failure, such as poor teaching style, inappropriate teaching techniques that are not impactful and lording the teacher centered teaching style over the student centered cooperating teaching techniques (Economics Network, 2009; Gamson, 2010). The Federal Republic of Nigeria (2013) noted that Economics is a prerequisite concept that every student must be taught and this must be taught with a lively and effective teaching tools. However, it has been observed that the conventional teaching style is the strategy heavily used/adopted by teachers in schools and this has not helped the learners to acquire the process skills as stipulated in the curriculum. This has therefore necessitated the adoption of strategies to facilitate learning.

Studies on teachers' effectiveness in teaching economics showed that teacher's methodology of teaching economics in the study area was inadequate due to lower educational qualification, lack of motivation in terms of remuneration and fringe benefit, the lack of teacher's recognition and cognitive experience (Chibueze, 2014; Idoko& Emmanuel, 2015). As part of the efforts geared towards improving the academic performances of students, educational researchers came up with a functional and stimulating techniques which is conducive for teaching and learning. Further to this, these strategies have been known to be effective not only in Nigeria and even globally. Among the strategies are Jigsaw, Student Team-Game Achievement Division (STAD), and host of others, which may be categorized as a subset of cooperative learning. Several studies conducted on instructional strategies in

various parts of the globe in general and in Nigeria in particular, have concentrated on the effectiveness of Jigsaw II or STAD instructional strategies on students' performance, motivation, participation and speaking competency. For instance, Siddiqui (2003) conducted a study which focused on the teaching of both arithmetic and literacy in three different classes. The study made use of cooperative learning, the research disclosed that the method of instruction was productive, because the outcome of student improve significantly. The work of Kosar (2003) also refuse to discredit the initial assertion. The researcher study also found cooperative learning to be resourceful when it was used to teach social studies. Also Iqbal (2004) did a similar study and the research findings was not different from the ones reported earlier.

However, it must be noted that many of the studies that made use of cooperative learning were done in field related to science, social sciences, mathematics and language. The foregoing shows that the effect of either Jigsaw II or STAD instructional strategies on students' performance in Economics has not been investigated. The subject also needs to be taught in a way that is lively and meaningful. No research known to the present researcher has been done on the two major independent variable this study is investigating in Okene, Kogi State. Therefore, this study is directed at examining the effectiveness of Jigsaw II and Students Teams-Achievement Division instructional strategies on the performance of Economics students. In the same vein, the effect of gender as a moderating variable was also examined and this is the lacuna this study set out to fill.

Purpose of the Study

The core purpose of this research is to investigate the effectiveness of Jigsaw II and Students Team-Achievement Division on Secondary School Students' performance in Economics in Okene, Nigeria. Explicitly, this research investigates:

- a. the academic performance of Economics students;
- b. the effect of Jigsaw II instructional strategies on the performance of Economics students
- c. the effect of Students Teams-Achievement Division instructional strategies on secondary school students' performance in Economics in Okene, Kogi State, Nigeria;
- d. the effects of Jigsaw II and Students Teams-Achievement Division instructional strategies on secondary school students' performance in Economics in Okene, Kogi State, Nigeria; and
- e. the interaction effect of gender on treatment (Jigsaw II and Students' Team-Achievement Division) on secondary school students' performance in Economics in Okene, Nigeria.

Research Questions

The following research questions were answered in this study:

1. What is the academic performance of Economics students?
2. What is the effect of Jigsaw II instructional strategy on secondary school students' performance in Economics in Okene, Kogi State, Nigeria?
3. What is the effect of Students Team-Achievement Division instructional strategy on secondary school students' performance in Economics in Okene, Kogi State, Nigeria?

4. What are the effects of Jigsaw II and Students Team-Achievement Division instructional strategies on secondary school students' performance in Economics in Okene, Kogi State, Nigeria?
5. What are the interaction effect of gender on treatment (Jigsaw II and Students' Team-Achievement Division on secondary school students' performance in Economics in Okene, Nigeria?

Research Hypotheses

The following null hypotheses were tested in the study:

- H₀₁:** There is no significant effect of Jigsaw II instructional strategies on secondary school students' performance in Economics in Okene, Kogi State, Nigeria.
- H₀₂:** There is no significant effect of Students Team-Achievement Division on secondary school students' performance in Economics in Okene, Kogi State, Nigeria.
- H₀₃:** There are no significant effects of Jigsaw II and Students' Team-Achievement Division on secondary school students' Economics performance in Okene, Nigeria.
- H₀₄:** There are no significant interaction effects of Jigsaw II, Students' Team-Achievement Division and gender on secondary school students' Economics performance in Okene, Nigeria.

Scope of the Study

The study investigated the effectiveness of Jigsaw II and Students Teams-Achievement Division (STAD) Instructional strategies on students' academic performance in Economics in Okene, LGA of Kogi State while adopting quasi-experimental research design. Jigsaw II and STAD Instructional strategies were used as the experimental treatments while academic performance was the dependent variable with gender serving as a moderating

variable in the study. All public senior secondary students offering Economics in Okene, LGA of Kogi State served as the study population with SSS 2 students offering Economics being the target population for the study. The sample for the study consisted of one hundred and forty-six (146) Economics students from three randomly sampled schools. The study employed two researcher- designed Economics Performance Tests for pretest and posttest. Data collected was analyze with Analysis of Covariance (ANCOVA).

Operational Definition of Terms

In order to remove ambiguity, the following terms are clarified as operationally used in this study.

Performance: These are scores on validated teacher made performance test obtained by students in Economics performance test.

Jigsaw II: is an experimental treatment where students separate from their own groups and form new groups with the other students who are responsible for preparing the subjects with the goal of helping other students understand the subject of Economics.

Students' Team-Achievement Division (STAD): is an experimental treatment package where students work in mixed groups to assist one another to be more acquainted with their Economics lesson after being taught by the teacher

Conventional Instructional Strategy: refers to lecture method commonly used in school where students listen to and depend on the teacher who is regarded as the main source of knowledge in Economics.

Significance of the Study

The outcome of this research would be hugely beneficial to curriculum planners, Economics teachers, Educational agencies and other researchers. From the outcome of this

study, curriculum planners would be informed on the effects of cooperative Instructional strategies (Jigsaw II and STAD) on students' academic performance. Also, this will stimulate curriculum evaluation which may lead to the inclusion of a functional teaching strategy which will be learner-focused especially in the scheme of work not only in Economics but also in other subject areas in basic, secondary and tertiary institutions.

In addition, this research would assist Economics teachers to device appropriate strategies for assessing students in the areas of cognitive, affective and psychomotor domains in order to achieve their educational objectives. Also, teachers' classroom physical effort would be reduced to the barest minimum therefore putting the students at the centre of all learning activities.

The findings of this study would go a long way in helping educational agencies in the federal and state ministries of education because it will provide these agencies with additional techniques for organising, coordinating, and supervising the practice of curriculum implementation and assessment of general outcome of the educational process. Finally, the findings from this study would be published in reputable educational journals for ease of access and usefulness for other researchers.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The review was carried out under the following sub-headings:

- a. The State of Economics as a Senior School Subject
- b. The Contents of the Senior Secondary School Economics Curriculum
- c. Concept of Instructional Strategy, Techniques and Methods
- d. Jigsaw II Instructional Strategy and Students' Academic Performance
- e. Students Teams-Achievement Division Instructional Strategy and Students' Academic Performance
- f. Appraisal of the Literature Reviewed
- g. Theoretical Background
- h. Conceptual Framework

The State of Economics as a Senior School Subject

Economics is considered a discipline that covers the scope of humankind under the fields of study. Also, in the last updated National policy of education, economics is scheduled to be taught at senior level in secondary school. Economics as a Senior Secondary subject cannot be properly analyzed, if the importance of Economics in our modern society is not well examined. Economics is a social science subject, which deals with human behaviour in the market. Economics therefore helps to understand some other subjects like Agriculture, Commerce, and Mathematics, etc. This is true because the subject interrelates with other subjects. Each course of study can make a unique contribution into the total Economics

education to the students. At the same time, teaching of Economics as an integral part of other social studies courses such as history, Geography and Government, contribute to improve understanding of these listed disciplines.

It may be enunciated that the concept of economics can accord the youth with entrepreneurial skills for self-sufficiency and societal growth. Yusuf (2010) also opined that Economics is a subject that must be taught in Secondary School at senior level .it was further asserted that Economics is a concept that focus majorly on how people in the society make a sane and decent resolution in regard to what they make financially in relation to living and also how to make a decision between options to gratify their limitless wants. The researcher further illustrated that the subject focus on the culture of production which is geared at gratifying human wants

Economics as a subject also has a well written and properly arranged topics to bring about the desired effect on the learners, with which they would be able to have the necessary knowledge needed or required in their present economy. Also, it's a concept that deals with production, exchange and consumption of various commodities in economic systems. It shows how scarce resources can be used to increase wealth and human welfare. The central focus of Economics is on the scarcity of resources and choices among their alternative uses. The resources or inputs available to produce goods are limited or scarce. This scarcity induces people to make choices among alternatives and the knowledge of Economics is used to compare the alternatives for choosing the best among them. For example, a farmer can grow paddy, sugarcane, banana, and cotton in his garden land. But he has to choose a crop depending upon the availability of irrigation water. According to Kitaoka (2013), two major factors is known to be the cause of problems in regards to economics. They are: (i) the

existence of unlimited human wants and (ii) the scarcity of available resources. The numerous human wants are to be satisfied through the scarce resources available in nature. Economics deals with how the numerous human wants are to be satisfied with limited resources. Thus, the science of Economics centers on want -effort –satisfaction as shown in Figure 2.

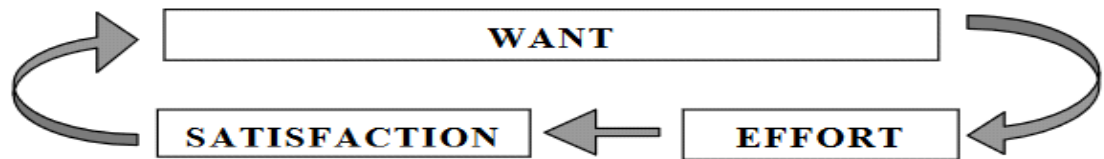


Figure 2: Want-Effort-Satisfaction Cycle by Kitaoka (2013)

Economics does not only cover the decision-making behaviour of individuals but also the macro variables of economies like national income, public finance, international trade and so on. The subject has been defined by Chudi (2013) as a course which is connected with how people, entrepreneurs and governments make use of limited resources at their disposal and play key role in the future progress of humankind. Similarly, American Economic Association (AEA) (2014) viewed Economics as the study of how people choose to use resources. It studies the behaviour of individuals, organizations, governments, countries and the globe as a whole. In terms of scope, Economics shares its nature with Science and Art. It is science because it shares characteristics with other science subjects (body of knowledge) that traces the relationship between cause and effect. Another attribute of science is that its phenomena should be amenable to measurement. Applying these characteristics, we find that Economics is a branch of knowledge where the various facts relevant to it have been systematically collected, classified and analyzed. According to Hernandez (2002), Economics investigates the possibility of deducing generalizations as regards the economic motives of human beings.

The motives of individuals and business firms can be very easily measured in terms of money. Thus, Economics is a science.

Conversely, Economics is also considered an art subject because of the ways it relates to labour and all that surround the use of labour. In order to understand the social aspect of Economics, we should bear in mind that labourers are working on materials brought from different nations and manufacturing products to be sold globally in order to exchange goods from all parts of the world to satisfy their wants (Hernandez, 2002). There is thus a close inter-dependence of millions of people living in distant lands unknown to one another. In this way, the process of satisfying wants is not only an individual process, but also a social process. In Economics, one has to study social behaviour in form of the behaviour of men in-groups. Science teaches us to know; an art teaches us to do. Applying this definition, we find that Economics offers us practical guidance in the solution of economic problems. Science and art are complementary to each other and Economics is made of both.

Khadka (2016) discussed the reasons economics is taught, the author disclosed that it will present to student the opportunity to be more knowledgeable about modern problem of economics and how these challenges can be conquered. Also the culture of economic growth will be imbibed in them in order for them to be responsive when any economic problem presents itself. Another focal point the researcher mentioned is that students will be conversant with trends that goes on globally, that is how nations of world became poor or rich. Also it will help them to know more about natural potentials of nations and anything related to finance. They will also be educated about the relationship that exist between economics and social growth.

Okunloye (2001) highlighted the significance of Economics, which are;

1. Economic performance: This is the ability to use basic economic concepts to make decisions about earning, saving, spending, and sharing money
2. Economic numeracy would also be developed by being able to compute and interpret statistical and mathematical tables, graphs etc. in Economics
3. It develops general understanding among students on the nature and operation of economic institutions in the areas
4. To enable the students to comprehend the simple economic snags in the society and proffer practical solutions
5. Developing student's appropriate skills and vocational orientation for effective participation in the economic life of their environment and the larger society
6. To equip the students for international understanding of economic events in the world scene as they touch several areas of the economy and each country as a player in the international economic system
7. To give foundation knowledge to students for future specialization in Economics and economic related disciplines in higher institutions.

In addition, Adeyemi (2010) asserted that Economics is a basic entry requirement for admission into most management and social science courses in most Nigerian Universities. This corroborates the assertion of Onuka and Durowoju (2010) that management and business derive their existence from Economics which means that Economics is the root from which business/management and all management related disciplines such as Insurance, Accounting, Purchasing and Supply, Marketing and Personnel management derived their existence.

The Contents of the Senior Secondary School (SSS) Economics Curriculum

The curriculum is seen as an encompassing academic activities that is planned by and directed by the school to attain its educational goals. Curriculum is a learning program or experience which learners pass through in order to achieve a definite educational goal. Idoko (2011) sees curriculum as an organized knowledge presented to learners in schools embedding every element in the school environment. It is a sequenced context or course of instruction needed by the learner who is expected to demonstrate some objectives in behavioral changes following instruction and experience in some context provided by the school (teachers and administrators) and based on a structured form of continuing evaluation (Idoko, 2011). Ajidagba (2006) also defined curriculum as the totality of all the school directed experiences offered to the child in order to prepare him for life. The importance of curriculum in any educational institution cannot be over emphasized. Ajidagba (2006) further stressed that curriculum is the experience which students and the teachers cover to reach the goal of education. Here, the goal of education according to the conservative theorists is the intellectual growth of an educated man i.e. man of sound intellect. However, this curriculum then has to be designed in a way that would suit the outside world, in other words meeting the global changes since there is rapid dynamic development in the global world at large.

The focal standard of Economics curriculum is to incorporate rudimentary knowledge and skills in students to shape and improve their mental prowess on the kinds of economic snags that exist in any society. Curriculum has been defined as the planned experiences which are offered to the learners within the formal educational institutions individually or collectively under the guidance of the school for the inculcation of worthwhile knowledge, character development and skill acquisition (Okunloye, 2004). The curriculum is also written

in such a way that, it would be amendable, as it would have to be appraised at different time, NPE (2002). This is also based on the fact that; education is a dynamic instrument of change while the world in which we are is also changing. Therefore, review has to be done in other that, its adequacy would be ensured and also its relevance to the national needs and objectives. In addition, the curriculum of Economics is also designed to meet the educational philosophy of Nigeria which was formerly 6-3-3-4 system and changed to 9-3-4 in 2005, all in a bid to achieve inclusive objectives (NPE, 2002).

It must be stated that the academic curriculum of Nigeria was designed to cater for student specific needs at different spheres of education. For instance, the senior secondary school curriculum is composed of two (2) major categories of subjects, i.e. compulsory subjects such as English and Mathematics and Elective subjects or optional amongst which are Economics, Geography, History, Accounts. The 21st century has witnessed landmark economic reform globally. In Nigeria, the last decade has also witnessed unprecedented economic reforms. These reforms have ushered in different concepts, models and theories not only into Economics but also into other disciplines. There is, therefore, the need to make post-basic Economics curriculum responsive to make it relevant to Nigeria's quest to be a major player in the world economy in the foreseeable future. Development of the human capital and the entire country is the hall mark of the new Economics curriculum (NERDC, 2008).

The objectives of the post-basic Economics curriculum include to enable students to: understand basic economic principles and concepts as well as the tools for sound economic analysis, contribute intelligently to discourse on economic reforms and development as they affect or would affect the generality of Nigerians, understand the structure and functioning of economic institutions, appreciate the role of public policies on national economy, develop the

skills and also appreciate the basis for rational economic decisions, become sensitized to participate actively in national economic advancement through entrepreneurship, capital market and the likes, understand the role and status of Nigeria and other African countries in international economic relationships, and appreciate the problems encountered by developing countries in their efforts towards economic advancement.

In spite of the laudable objectives of the Economics curriculum, the difficulty level of some of the topics as well as time constrain the teacher from attaining these clearly articulated objectives from being realized. A research carried out by Inayati, Handayani, Kustiandi, Haryono, Wahyono and Sapir (2018) reported that teachers felt that the chapter, basic aspects of production embedded in the theme: Theory of Production in Senior Secondary I Economics is above their understanding level while Exchange, algebraic representation is very difficult to understand. Teacher reported that in Senior Secondary III curriculum is comparatively more than what is taught in other classes and the difficulty level is also high. Teachers reported that the terms used in lessons are very difficult to understand. Some teachers who did not study economics at undergraduate level face problems in teaching. The term like economic efficiency is very difficult to explain. Meanings of the term used in these lessons should be given in the end, they reported. Algebraic representation given in the chapter, Basic Economic Concepts is also difficult. The terms like liability, transferable share etc. used in business organization chapter are difficult to explain in the classroom. Four graphs and two tables were given in the chapter of exchange. Economics teachers reported that they require good preparation and they had to refer to economics books.

Yusuf (2010) reiterated the issues that surround the teaching of economics. The bone of contention is that, people don't develop advanced mental capacity until they get to sixteen years and teens years is considered to be secondary school period, with this, there is a notion that the knowledge of economics may not be successfully imparted to students before this stage (16 years). In addition to this, it has been discussed that economics contain some logical concept which may be difficult for student in secondary level to grasp. Any attempt to remove this logical concept will defeat the goal that the teaching of economics was set out to achieve. A study by Nwigwe and Ugwu (2017) disagreed to the statements that there are too many difficult topics in economics, the contents in Economics is too broad and economics require teachers from different fields. Results showed that there is no significance difference in the subject matter competences possessed by teachers for the implementation of the Economics Curriculum.

Moreno (2007) explained that curriculum-based educational reform are becoming more popularized all over the world. This in his view is due to the growing pressures and demands for change based on both the structures and content of school curricula. In response to this, the content of economics was reviewed to accomplish the set-out intentions. The provision for a constructs emerging from the current economic challenges is also a significant change. Ekweoba (2014) stressed the importance of making secondary school Economics curriculum interesting, enlightening, and revealing for meaningful gains from the experiences, knowledge and skills needed for real life activities.

Concept of Instructional Strategies, Techniques and Methods

Instructional strategies are the techniques that a teacher can adopt to meet the various learning objectives (Richa, 2014). These strategies help student to walk on the path of independent learning and become strategic learners. They equip teachers to make learning fun and help students to awaken their desire to learn. Instructional strategies focus on not only the educational content but also on the method and environment of the teaching process. Students' development level, interests and experience are considered while choosing a particular teaching strategy so that they can self-accomplish their goals.

In the same vein, Marzona, Pickering and Pollock (2001) focused their attention on successful instruction and found twenty-one instructional strategies that can be useful and beneficial in enhancing student achievement. Their purpose for conducting the study was to recognize instructional strategies that have a high probability of producing the desired learning outcome for all students. However, it is important for teachers to not only know the subject matter, but they must also become knowledgeable of appropriate strategies that will help produce learning outcomes for each student (Erickson, 2008).

Ayeni (2011) expressed teaching to be a means of initiating a meaningful changes in learner which may result to changes in learners' behavior to accomplish an unambiguous results. Adunola (2011) pointed out that academic tutors have a duty to use a proper teaching methodology to achieve learning in the classroom. Also, Bharadwaj and Pal (2011) posited that instructional strategy is productive when it suits learner's aspiration, as such, it is advised that a suitable teaching methods that will accommodate students weakness should be employed to attain academic excellence (Zeeb, 2004).

On the other hand, Weston and Cranton (2001) viewed instructional strategies as both the teaching mode and the instruction employed in the process of teaching. Instructional strategies determine the approach a teacher may take to achieve learning objectives. Some of these instructional methods include demonstration, discussion, inquiry and lecture among others. According to Saskatchewan Education (2002), instructional proficiency is the most essential category of teaching behaviour. They are necessary for procedural purposes and for structuring appropriate learning experiences for students. These include such techniques as questioning, discussion, directing, giving, explaining and demonstrating. Hence, students learn by doing, making, writing designing, creating and solving (Davis, 2003).

There can be no successful teachings without application of one method or the other. This is because teaching is a complex activity that involves the subject matter, methods and materials as well as human being who have physical, emotional, psychological and intellectual reactions. Thus, for the effective teaching-learning process in Economics to take place it is expected that teachers should be equipped with knowledge of teaching methods. A method is an approach to instruction, that is, the way by which a teacher decides how learning will take place effectively. It can as well be conceived as the ways by which the teacher delivers what he intends to teach the learners. There are numerous teaching methods and each method makes special contribution(s) to teaching and learning. Edward, Christine and Michael (2011) submitted that teacher has a wide variety of methods to call upon in helping his students to learn. But he should understand the peculiar characteristics, intents, merits and demerits of each method in order to be able to choose the one, in each situation, which will most effectively serve the needs for the students.

Gill (2013) identified and explain five teaching methods and these are Lecture method, Coach method, Activity method, Blended method and Group method. Lecture method is more of teachers-focused. In this method, students are allowed to take note. However, this is commonly used in tertiary institutions where the teacher has large number of students to teach. The second method is Coach method, this method enables the teacher to display the content to be taught through electronic medium and it can also be achieved by demonstrating teaching instruction to learner

The Activity method involves independent learning by the student and this helps the learner to develop high level mental capability. It also allows student to be more inquisitive in class and it builds self-confidence and self-esteem in learner. The next in the series is the group method, this is more of team learning and most applicable in science subject. Activities like debate, practical exercise are mostly done with this method. The author described the blended method as a multifaceted approach where the teacher selects varieties of teaching method in order to accommodate the learners weakness and aspiration.

Grasha (1994) explained that it is important for academic institution to use a reliable measure to assess teacher's activities in the classroom. The researcher mentioned that any method that will be used to stimulate teacher's performance must be made simple. Although, he developed specific teaching styles, Grasha (1994) warned against boxing teachers into a single category. Instead, he advocated that teachers play multiple roles in the classroom. He believed most teachers possess some combination of all or most of the classic teaching styles. Tomlinson, (2003) mentioned that teachers must be used to diverse instruction techniques to accommodate student weakness. The researcher stressed that teachers must have an inclusive

approach toward students and cater for student aspiration when developing their lesson plans. Also, it was disclosed that a student-focused approach helps the teacher to cover the individual differences in student.

It has been suggested that when teachers consider mix of teaching strategy to address learning problem it may be out of fashion because focus is now shifting to independent learning style where it is more centered on student. Summarily, contemporary methods of teaching involve diverse kinds of teachers, this ranges from the specialist to a professional. Gill (2013) elucidated dynamics to ponder on as teachers decide the most effective teaching method for their learners.

Constructivist teaching approach is more of group-focused and inquest-focused. This school of thought embraces subdivisions of alternate teaching methods comprising demonstrating, tutoring, and assessment groundwork with prefaces framework. Every of this gesture is geared towards encouraging student involvement and demand a fusion methodology to teaching. Many critics of this approach have disclosed that the techniques is more beneficial to a sanguine, team-focused students that have a habit of controlling and profiting from these teaching methods further than a Phlegmatic kinds of personality.

Diverse means can be used in teaching a unit of work so as to give the students the opportunity of making all their learning permanent. It has been advised that for the purpose of practicing theory and enhancing skill development in students, teachers should discard the habit of exclusive reliance on instructional technique and adopt rather the practice of using combination of two or more techniques that match the students and contents they are teaching.

We shall therefore examine those methods that are appropriate to certain teaching situation below:

Lecture Method: It is one of the oldest and most widely used method today. The method implies that the teacher treats a given topic through verbal explanation. The teacher does the talking alone while student's participation is limited thereby rendering the learner passive (Rosini, 2000). This method is commonly used because it is cheap, easy and most familiar to the students especially in teaching Economics because there are some abstract topics in Economics without the suitable methods to teach them except the lecture method.

The method of teaching that is common in many classrooms in Nigeria today is lecture or didactic method. The method has variously been called the traditional or conventional teaching method, the chalk and talk method, the expository method or the modified lecture method (Ajitoni, 2005). The lecture or didactic method is a teaching strategy in which the teacher makes a verbal presentation of ideas to the students (Lawal, 2001). The students receive these ideas meaningfully or by rote. The bulk of the knowledge students gain in school basically involves information about the content areas. Teachers attain a level of authority academically and they usually pass on these pieces of information to the students through the lecture or didactic method. The lecture method exemplifies the process of "one-way communication" (Ajitoni, 2005).

In the same way, Ajitoni (2005) thought that the only educational activity that could possibly go on for the children under the lecture method of teaching would be listening. The attitude of listening means compliance, passivity, and absorption. In his view, such a

relationship, and teacher-student relationship which allowed only for such an attitude on the part of the child, must of necessity limit both achievement and development.

Inquiry Method: This method deals with finding out of facts, information or data about opinions, matters or issues. It involves a complex mental process of identifying a problem and selecting a solution process through visualizing, imagining, manipulating, analyzing, abstracting and associating ideas (Edward, Christine & Michael, 2011). The method encourages the students to find out, investigate, question, analyze, collate, evaluates facts, ideas, knowledge and information.

Project Method: This involves giving the participants a task or large-scale exercise to be executed over a space of time. In this method, the teacher groups the pupils and gives them group work (Richardson, 2003). The teacher inspires, supervises and coordinates the activities of various groups. Project method provides opportunities to learn a technique, practice a skill, to solve problem and to perform creatively (Edward, Christine & Michael, 2011). They offer excellent opportunity for students to pursue personal interests and goals.

Question Method: It is an important method in teaching Economics. The teacher can master the art of questioning. Questions to be asked must interest the students, they must not be confusing, but rational and not too easy or difficult and should be rated from simple to complex (Richardson, 2003).

Discussion Method: This is a participatory approach to teaching and learning which involves student's participation. It involves an oral exchange of ideas, facts and opinions about a topic of mutual concern. This implies the participation of the learner in the learning practice, where

learners evaluate points of view; raise issues on their own and seek solution etc. under the teacher's guidance and direction (Sam-Kayode & Salman, 2015). The method is appropriate only for small groups of learners. The nature and objectives of Economics make this method particularly appealing.

Role Playing: it is a method of teaching that involves getting students to act out certain parts. In this method, students are given opportunity to express their views, thoughts, and feelings without any restriction. They learn how to cooperate together and to develop profitable economic behaviour and the learning experiences gained are never forgotten (Edward, Christine & Michael, 2011). One other advantage of this method especially for teaching Economics is that economic problems, issues and policies become more real to students.

Problem Solving Based Learning: Problem-Based Learning (PBL) is a student-centered pedagogy in which students learn about a subject through the experience of solving an open-ended problem found in trigger material. Many a times problem solving is an effective strategy to help students construct their concepts. For instance, a part of the first concepts of microeconomic theory is that of scarcity and choice leading to opportunity cost. In order to teach this topic, a problem may be raised on planning a school leaving party. Information will be given regarding the money they can spend on things like food, music, decorations, venue and many other things. Each group of students will need to decide on which option it will choose giving the rationale behind the choice (Sam-Kayode & Salman, 2015). Through this exercise, student themselves come up with the economic problem of wants being unlimited and resources being scarce due to which choice needs to be made. Also they are able to comprehend that there is an opportunity cost attached to every choice or decision that is made.

Case Studies: This is a powerful student-centered teaching strategy that can impart students with critical thinking, communication, and interpersonal skills. The case method is also effective at developing real world, professional skills. Working on case studies requires good organizational and time management skills (Shan-Ying, 2014).

A study by Adediran, Orukotan and Adeyanju (2015) investigated the cooperative instructional strategies for the advancement of an efficacious teaching in secondary schools. Results showed that teachers agreed that the manner in which the teachers approach their teaching do not stimulate a functional teaching practice and there exist issues facing the deployment of instructional approaches in their teaching endeavors, and many teachers find it difficult to use instructional strategies during their teaching exercise. Similarly, Fajemidagba, Salman and Ayinla (2012) examined the effect of word problem involving simultaneous equations using Instructional strategy pattern on the students' performance. Findings from the study showed that the experimental group exposed to Instructional strategy pattern performed significantly better in Mathematics word problems-solving involving simultaneous equations than their counterparts in the control group.

In a descriptive study by Samba, Achor & Ogbeba (2010) which examined the extent of science teachers' awareness of some selected innovative teaching strategies and their application at secondary school level in Benue State, Nigeria; findings revealed that most science teachers in Benue State are aware of almost all the selected innovative teaching strategies used in this study, but an insignificant proportion of them are adequately utilised. Similarly, Sam-kayode and Salman (2015) investigated the effect of learning techniques on senior school students' performance in mathematics. The study made use of quasi-

experimental design. 100 respondents were selected purposively from two co-educational schools in Ibadan, Oyo state. ANCOVA and t-test were employed to test the data collected. It was observed from the study that a substantial variance exists in the academic outcome of students with diverse capacity level in the experimental group. It has been observed that students are of different ability level in assimilating facts and principles. As a result, there is a need to investigate the ability level of students and their academic performance in Economics.

Furthermore, Okoli (2011) investigated the use of problem-solving and teacher demonstration techniques on students' performance in accounting. Four research questions were also stated. The researcher used experimental research design. The researcher had two treatment groups (problem-solving and demonstration groups) and one control group (conventional lecture method) of 30 students in each group. Financial Accounting Test I and II (FAT I and II) were given to ascertain the academic outcome of students. It was shown that problem solving group performed better than the other groups.

Additionally, study was conducted by Muhammad (2011) on the role of cooperative learning on Students Achievement in Arithmetic. Research questions were not stated and the researcher used experimental research design in the methodology. The study sample was fifty-three (53) students only. Reliability was determined by using spearman-Brown's prophecy formula. Analysis of variance was used to test the treatment effects for high and low achievers. It was reported that experimental group students perform significantly better than the control group students.

Jigsaw II Instructional Strategy and Students' Academic Performance

Instructional strategies comprise the principles and methods used for instruction to be implemented by teachers to achieve the desired learning in students. These strategies are determined partly on the subject matter to be taught and partly by the nature of the learner. For a particular instructional strategy to be appropriate and effectual, it must be in relation with the characteristics of the learner and the type of learning it is supposed to bring about (Khalil & Elkhider, 2016). In the words of Cuthbert (2005) Instructional strategies are process used by teachers to make the learner attain a level where he/she can learn on his own or independently. A strategy is confirmed to be effective when the learner employed a particular and precise strategy to achieve a given tasks.

Haist, Bowden and Mao (2000) identified standard of becoming an effective strategic learner. The researchers stressed that different instructional methodology and learning instruction and also an effectual support practice that comprise modeling, autonomous practice, prospects to transmit ideas from one scenario to another, significant relationship amid skills and ideas, and many more instances are the prerequisite to follow in order to achieve this feat. In addition, a functional teaching and learning approach like Cooperative learning can be deployed to different academic levels and also it has the capacity to address individual differences among students.

Jigsaw, is a form of cooperative instructional strategy, and it has been used with great exploit. Summarily, jigsaw is a learning exercise which splits learners into clusters in which every cluster member concentrate on a particular concept. After they finish their exercise, a fresh cluster will be formed which comprise representative from every of the first clusters. In the fresh cluster, each “expert” shares the knowledge which they have acquired and the new

cluster produces a result and reveal their combined mastery. In addition, Jigsaw is more suitable with social science concept. Jigsaw lessons offer distinctive prospects for learners to learn from each other and practice modern skills of teamwork and communication in a genuine situation. By using the jigsaw during lessons, it will get student ready for professions in the future.

Furtherance to this, Jigsaw is a process that is more applicable when teaching a narrative concept. It is a method where every group member is mandated to learn a definite part of a subject matter. Thereafter participants in every group will then meet with participants of other groups known as the "expert" in the same part, the "experts" will withdraw back to their own groups to present their results. Team participants will then be cross-questioned on the whole topics. For example, the teacher can decide to teach the students about 'transportation system in Nigeria'. The topic is divided into various subheadings such as the meaning of transportation, types of transportation, and functions of the transportation system in Nigeria and problems of transportation in Nigeria.

In addition, Schreyer Institute (2007) asserted that Jigsaw Strategy is a productive means of gaining knowledge and this happens in a team like manner. This strategy stimulates learners to more committed, serious, responsive, focused during learning. It also makes learners to appreciate the effort of their colleagues who belong to the same group with them because every learner's intellectual input is fundamental and integral to their common goal and results. The strategy, developed by Elliot Aronson, involves the formation of Home Groups to resolve the task. The Home Groups allocate one member to each Expert or Research Group to gather data to bring back to the Home Group.

To illustrate this, five or six learners are allocated into small groups. Each member of the group is assigned a portion of an assignment or research project. Each member must research the material pertaining to their section of the project and be prepared to discuss it with their classmates. The Jigsaw strategy places great emphasis on cooperation and shared responsibility within groups. The success of each group depends on the participation of each individual in completing their task. This means the Jigsaw strategy effectively increases the involvement of each student in the activity.

According to Berimani and Asghari-Astane (2014) jigsaw is a type of cooperative learning which each member of a group has a piece of information needed to complete a group work. Therefore, it is a good method that can be used to unite learners in the class to create an enabling condition. As Aronson (2000) asserted that Jigsaw is not just a cooperative learning technique but also it ensures dependency within students, so it is a unique system. Jigsaw is a teaching practice in which learners are responsible for learning the material and teaching it to other learners. Jigsaw activity has been a teaching activity that can be used by teachers of all grades in their classrooms. Many educators have adapted and employed the revised versions of Jigsaw technique in their classes (Zhan & Georgia, 2011). Jigsaw technique encourages student participation in a classroom where learners have a critical role for success and this success depends on active cooperation and participation. Using the Jigsaw technique enables access to diverse learning proficiencies and teaches learners course content and cooperative social skills, (Perkins & Tagle, 2011).

In the Jigsaw technique, the only way for a student to learn the other parts of the content that is not under his/her responsibility is to carefully listen to his/her teammates, these

practices encourage learners to support and care about the work of others (Mari & Gumel, 2015). Jigsaw strategy has been designed to promote cooperation by making persons rely on others. In this technique, each participant is mandated to learn a portion of a wide topic and teaching it to other learners. That is, each learner is dependent on other group members to learn the main topic (Buhr, Heflin, White & Pinheiro, 2014). As each learner in the cooperative work group is responsible for a minute fragment of the learning content and teaching it to other members, the sense of having a responsible role places them in the center of knowledge creation process (Tran, 2016).

Similarly, the jigsaw method is an effective way to increase student engagement through group work that facilitates peer-to-peer learning. Dr. Barbara Tewksbury of Hamilton College offers the following description of the jigsaw method: Teams of students are assigned to investigate different aspects of the same problem or issue. Each team, might, for example, analyze a different but related data set or read an article on different aspects or viewpoints on the same topic. Once each team member thoroughly understands his/her team's aspect of the problem, new groups are constituted, containing one representative from each original team. Each individual then explains his/her team's portion of the problem to the newly constituted group. Thereafter every participants learns all portion of the problem. Each group then uses the combined information to evaluate a summary issue.

Jigsaw method is a teaching strategy that helps students to develop skills for working effectively in teams, an important competency for socio-environmental synthesis (S-E synthesis). Grounded in social interdependence theory (Johnson & Johnson, 2005), cooperative learning is an established educational approach robustly supported by over 1,200

research studies (Johnson & Johnson, 2009). The central tenet of jigsaw learning is that rather than competing with each other or being indifferent to each other, students engaged in cooperative learning. A visual representation of the jigsaw approach, taken from Reilley (2010) is shown in Figure 3.

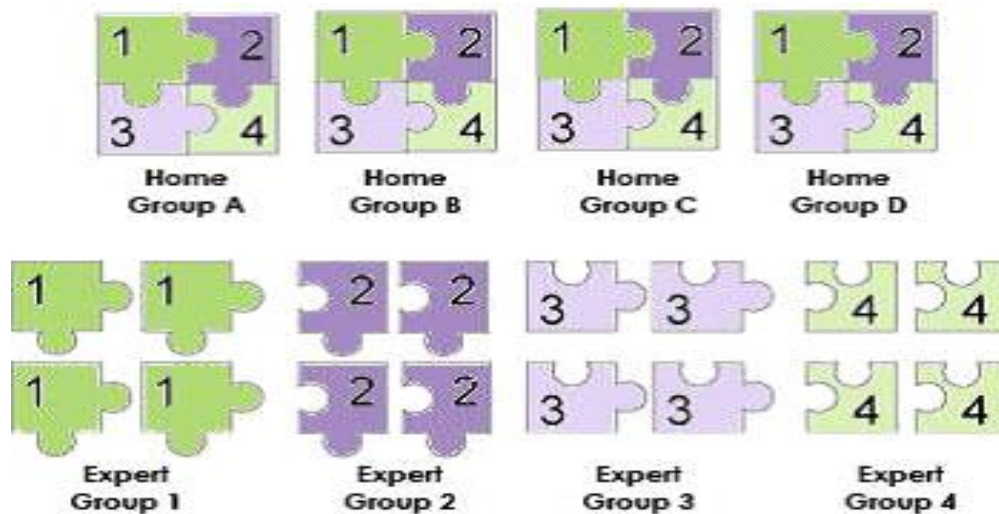


Figure 3: Jigsaw Group Diagram. Source: Reilley (2010)

Reilley (2010) asserted that Jigsaw activity is a teaching practice in which learners are responsible for learning the material and teaching it to other learners. Jigsaw activity has been a teaching activity that can be used by teachers of all grades in their classrooms. Many educators have adapted and employed the revised versions of Jigsaw technique in their classes (Zhan & Georgia, 2011). Jigsaw technique encourages student participation in a classroom where learners have a critical role for success and this success depends on active cooperation and participation. Using the Jigsaw technique enables access to diverse learning proficiencies and teaches learners course content and cooperative social skills (Perkins & Tagle, 2011). In the Jigsaw technique, as the only way for a student to learn the other parts of the content that is not under his/her responsibility is to carefully listen to his/her teammates, these practices

encourage learners to support and care about the work of others (Mari & Gumel, 2015). Jigsaw technique has been designed to promote cooperation by making individuals dependent on each other. In this technique, each student is responsible for learning a part of a broad topic and teaching it to other learners. That is, each learner is dependent on other group members to learn the main topic

Also, Buhr, Heflin, White and Pinheiro, (2014) as each learner in the cooperative work group is responsible for a small part of the learning material and teaching it to other members, the sense of having a responsible role places them in the center of knowledge creation process (Tran, 2016). Jigsaw model is an effective approach to develop dependency and cooperation. However, there are some disadvantages to this model that affect learners' participation in group work in a negative way. When students believe that their individual efforts are not related to their group's performance, some negative group procedures such as social evasion and fool effect may occur. In order to use this teaching method effectively, some limitations of the technique need to be considered. When the cooperative tasks given to the group members are not challenging enough to require a joint effort, group members can view their individual contributions as unnecessary. Moreover, if the cooperative work does not comprise sufficient tasks for each group member to contribute, students are inclined to social evasion. This instability gives inconvenience to the group members who have to undertake the majority of work. Also, it is important for the main content chosen for the group work to be divided into sub-categories for the equal responsibility of group members (Voyles & Bailey, 2015).

Johnson (2000) infer that jigsaw is productive because it more exact and detailed and it is design to realize a shared result (Weidman & Bishop, 2009). Their research work reveals

that jigsaw instructional method divides a block of knowledge such as a book chapter or unit of study into smaller manageable chunks. Teams of individuals are formed with each person being responsible for a specific chunk of the topic, subsequently becoming an expert for that chunk of knowledge. They further explained that the jigsaw method typically follows a specific sequence of events. The first step occurs when the instructor has decided upon a topic to be researched or presented, then afterward students are then divided into small cooperative groups. This small group, according to Aronson (2000) is typically referred to as the “Home Group”. Secondly, students are assigned a smaller unit or chunk of body of knowledge. Lipponen, (2002) disclosed that every member is mandated to proffer solution to a difficult exercise given to them, whereas in collaborative circumstance, members are equally involved in joint exercise; it is required for them to channel their inputs if they want to produce answer to the difficult exercise given to them. In essence, each participant becomes the expert. The third step is for each expert group member to deliberate on the content of the subject with their groups to teach their group-mate (Kordaki & Siempos, 2010). The final step is for the learners to assess their peers (Kordaki & Siempos, 2010). Typical elements that are outcomes of the jigsaw method are positive interdependence, individual accountability, promotion of peer socialization and social skills development.

Furthermore, Jigsaw is seen as a teaching practice in which learners are responsible for learning the material and teaching it to other learners. Jigsaw activity has been a teaching activity that can be used by teachers of all grades in their classrooms. Many educators have adapted and employed the revised versions of Jigsaw technique in their classes (Zhan & Georgia, 2011). Jigsaw technique encourages student participation in a classroom where learners have a critical role for success and this success depends on active cooperation and

participation. Using the Jigsaw technique enables access to diverse learning proficiencies and teaches learners course content and cooperative social skills (Perkins & Tagle, 2011).

Correspondingly, In the Jigsaw technique, as the only way for a student to learn the other parts of the content that is not under his/her responsibility is to carefully listen to his/her teammates, these practices encourage learners to support and care about the work of others (Mari & Gumel, 2015). Jigsaw technique has been designed to promote cooperation by making people rely on one another. In this technique, each participant is mandated to learn a portion of a wide topic and teaching it to other learners. That is, each learner is dependent on other group members to learn the main topic (Buhr, Heflin, White & Pinheiro, 2014). As each learner in the cooperative work group is responsible for a minute fragment of the learning instruction and teaching it to other members, the sense of having a responsible role places them in the center of knowledge creation process (Tran, 2016).

Contrariwise, Jigsaw model is an effective approach to develop dependency and cooperation. However, there are some disadvantages to this model that affect learners' participation in group work in a negative way. When students believe that their individual efforts are not related to their group's performance, some negative group procedures such as social evasion and fool effect may occur. In order to use this teaching method effectively, some limitations of the technique need to be considered. When the cooperative tasks given to the group members are not challenging enough to require a joint effort, group members can view their individual contributions as unnecessary. Moreover, if the cooperative work does not comprise sufficient tasks for each group member to contribute, students are inclined to social evasion. This instability gives inconvenience to the group members who have to

undertake the majority of work. Similarly, it is imperative for the main content chosen for the group work to be broken down into fragment for the equal responsibility of group members (Devi, Musthafa & Gustine 2015).

Though Jigsaw instructional strategy has the disadvantage of consuming a whole lot of time to assigned students into a group work it still possesses the following advantages:

1. It aids the learners to have in-depth knowledge of the topic, the text because the students have practice in peer teaching, which requires that they understand the material at a deeper level than students typically do when simply ask to produce on an exam.
2. It has a strong effect on attitude to learning and some social relationship among students in the group because each student has a chance to contribute meaningfully to a discussion, something that is difficult to achieve in group discussion. Each student develops an expertise and has something important to contribute, share information, because cooperation and communication are necessary and students are active participants in the learning process where needed.
3. It enables the students to understand what is require to be learnt because students is require to prepare. It ensures dependency within students. It promotes mutual relationship within the team because every participant needs each other to attain the set goal.
4. As Aronson applying jigsaw techniques the following advantages were detected: Generating a positive interaction between students, increasing self – esteem, decreasing in prejudice and stereotyping, reducing absenteeism, improving academic

performance, decreasing competitiveness and helping to see the peers as a source of learning, struggling against ethnic and racial difference.

The overall benefits of the Jigsaw Technique are that students are directly engaged with the material, instead of having material presented to them, which fosters depth of understanding. They also gain practice in self-teaching; a valuable skill which can help them learn and in peer teaching which requires them to understand the material at a deeper level than students typically do when simply asked to produce on an exam. Furthermore, while implementing Jigsaw Technique, students speak the language of the discipline and become more fluent in the use of discipline-based terminology. Each student also develops an expertise and has something important to contribute to the group as well as a chance to contribute meaningfully to a discussion, something that is more difficult to achieve in the large-group discussion. Other benefits stem from group task which promotes discussion, problem-solving, and learning, encourages cooperation and active learning and promotes valuing all students' contributions.

In Jigsaw technique, each student makes sure the portion of his/her task is made ready outside the classroom. Later they turn to their groups and peer-teach other members. Whereas all groups can take the same subject, different groups can take different parts of it as well. Groups are reorganized to teach the subject in turn (Grasha & Yangarber, 2000). Jigsaw technique supports cooperative learning by giving each student the responsibility to teach a portion of the subject. In this technique, there are members of two different groups, 'home group' and 'Jigsaw group' (Doymus, et al., 2004). Home groups separate from each other, just like the parts of a Jigsaw, and join the Jigsaw groups which contains the home groups

members which were given the same part of the material. Afterwards, students in the Jigsaw groups discuss on the subject to make sure that they understood it completely. (Colosi & Zales, 1998).

Jigsaw II is a team activity where an associate of a team is mandated to learn their own portion of an instruction, while experts are saddled with the duty of teaching their content to other group associate. What makes Jigsaw I and II different is that in Jigsaw II, every student get every of the information but not the sole information that is germane to the portion of the topic. Afterward scores of every associate is generated base on tests, and then cumulative score of entire group is then sum-up from the score of every group-associate.

Purpose of Jigsaw: Bennett (2001) disclosed that Jigsaw learning approach allow learners to be exposed to the content to be learnt at the same time it enables leaners to be responsible, that is, it stimulates the culture of communal learning skills among learner. Also it makes it possible for learners to have an in-depth understanding of content learnt which may not be so if the learner is to learn the content individually. Conclusively, it will reveal the level of understanding and misunderstanding of learners because it is mandatory for participants to present their outcomes to the home group.

Steps Involved in the use of Jigsaw II: Slavin (1995) advanced the following as the steps involved in Jigsaw II:

Step 1: Students begin in their home team; all students receive all the information rather than only information relevant to the part of the topic.

Step 2: Students form expert teams with a small number of classmates (normally four or less) to study their parts of the topic and prepare to teach it to their own team member.

Step 3: Students return to their home teams and teach their group mates while the home team members are less dependent on each other because they have the information that their group mates are teaching them.

Step 4: Students take quiz or work together on a task that involves all the different part of the topic.

Sahin (2010) carried out a study with the aim of exploring the effects of a cooperative technique Jigsaw II and teacher-centered teaching style on Turkish language teacher education department students' attitudes to written expression course (a course in which writing skills were taught), their academic achievement, retention and their views, in 2009 to 2010 academic year. The study was an experimental design while data was collected through Attitudes to Written Expression Scale (ATWES) and Written Expression Achievement Test (WEAT), Students' View Form (SVF). Results showed that there exist a substantial variance between the experimental and control groups. It was concluded that the experimental group had a right perception on the use of Jigsaw II technique. In a related research conducted by Jimoh, Idris, and Olatunji (2016), the results showed that cooperative learning method is more effective than the traditional lecture in the teaching of cost accounting. The study also revealed that gender did not contribute significantly to varying students' achievement scores.

Students Teams-Achievement Division Instructional Strategy and Students' Academic Performance

In the words of Siegel, (2005), the author described Cooperative learning to be a process which enables two or more learners to study communally so as to achieve a mutual goal oriented outcome. Cooperative learning is not simply another teaching technique or learning activity, it is an approach to teaching or methodology that uses a variety of teaching techniques. The teacher may lecture in order to present basic materials. In some cases, demonstrations are conducted for the entire class. Worksheets and handouts are typically used extensively in this approach. Role plays are commonly used too. So, the resourcefulness of the teacher will not be subdued because he still retains the character of being the provider of all information while the students just work in groups to reinforce concepts taught by the teacher.

Furthermore, cooperative learning models is one of the Group Investigation Models theorized principally by Thelen and Dewey (1987) which is an adaptation of the social interaction models, aimed at the development of skills for participation in the democratic social process through a combined emphasis on interpersonal (group) skills and academic inquiry skills. In cooperative model, the teachers maintain complete control of the class, even though the students work in groups to accomplish a goal of a course. The cooperative teacher asks a specific question, provides additional content to be studied and evaluated by the learner, the teacher will then request the learner work in a team and provide response to the question asked. The groups then present their results to the whole class and discuss their reasoning.

On the other hand, cooperative learning attempts to combine in one teaching strategy, the form and dynamics of the democratic process with the process of academic inquiry. The democratic process aims at organizing classroom groups to do any or all of the following: (i)

Develop a social system based on and created by democratic processes; (ii) Conduct scientific inquiry into the nature of social life and processes. In this case the term democratic procedure is synonymous with the scientific method and inquiry; (ii) Engage in solving social and interpersonal problem; and (iii) Provide an experience – based learning situation.

Slavin, (2011) explains cooperative learning to be a communicative form of learning where learner is required to study in a group. It is an integrated activity approach to learning that combines social investigation, educational work and action. It is based on real life experiences, incorporates dialogues between and among teachers and students and critically analyses the structural, organizational and systematic causes of problems. In such programme, the learners are involved in problem-solving, commonly in small groups where they work together with peers. They choose their own pace and make decisions about how learning is structured, including where and when it takes place. Cooperative learning is more resourceful compared to other forms of teaching; it brings about motivation, intellectualism and also social abilities. Two major attributes that can be used to differentiate cooperative learning from customary learning include interdependence (positive) as well as accountability as each member of group is important for success (McMaster & Fuchs, 2002). Its competence in terms of augmenting academic achievement has been proved in many research studies (Winston, 2002).

Johnson (2005) disclosed that cooperative learning increases the right approach to learning and also it stimulates social relationships. Likewise, Sahin (2010) stated that cooperative learning promotes self-worth among learners. Abrami, Poulsen & Chambers, (2004) also share similar perspective, the authors illustrated that cooperative learning

encourage teamwork among student and this makes them to reach their goal. Polloway, Patton and Serna (2001) discussed that this method promote motivation, involvement and students' performance. This method has been proven to be effective by many researchers locally and outside the country.

For instance, Siddiqui (2003) conducted a study which focused on the teaching of both arithmetic and English literacy in three different classes. The study makes use of cooperative learning, the research disclosed that the method of instruction was productive because the learning outcome of students improved significantly. The work of Kosar (2003) also refuse to discredit the initial assertion. The researcher study also found cooperative learning to be resourceful when it was used to teach social studies. Also Iqbal (2004) did a similar study and the research findings was not different from the ones reported earlier.

Four challenges about cooperative learning have been listed by Stanne (2000). The author stated that limited researches are available to validate the efficacy of the learning techniques. Also it was harangued that little inclusive assessment of the learning techniques have been tested empirically tested. The third issue with cooperative learning is that the efficacy of the technique on student performance has not been determined, while the fourth issue has to do with things that characterized effective cooperative approaches. It was announced by Stanne (2000) that this learning technique can be placed on direct and conceptual continuum with the direct continuum being the exact and distinct practices teachers can know within minutes and use instantaneously in teaching process. Adams (2013) disclosed that the conceptual methods are the outlines teachers learn and employed to reorganize present lessons exercise.

The goals of a democratic curriculum according to Ajitoni (2005), which are inherent in cooperative learning, are: (i) critical literacy which goes beyond learning to read and write to include the motivation and capacity to be critical of what one reads, sees and hears to probe beyond surface appearances and question, the common wisdom; (ii) knowledge and understanding of diverse intellectual, cultural and scientific traditions, which include the academic disciplines and histories and perspectives of those people including women and low academic ability students traditionally excluded from success in schools; and (iii) Ability to use knowledge and skills; to pursue one's own interests; to make informed personal and political decisions; and to work for the welfare of the community.

Harmoniously, it must be noted that various instructional strategies have been developed to enhance the effective teaching-learning process. Among the strategies designed at meeting the principles of active construction of knowledge is Jigsaw and team game tournament. Cooperative instructional strategy therefore, is a method of teaching where small groups of students work together to perform a task and receive rewards both on individual performance and on their groups' performance. Cooperative instructional strategies comprise of group investigation, Jigsaw instructional techniques, STAD and so on.

STAD instructional strategy is a cooperative teaching strategy which was developed by Slavin (1987) as part of a student learning approach program along with other cooperative strategies such as Teams-Games-Tournaments, Jigsaw II, and Team Assisted Individualization (Adams, 2013). STAD strategy involves the allocation of four- or five students into a learning group. The group will then comprise high, average, and low

performing students, and also male and female of diverse ethnic orientation. Accordingly, every group is a division of the whole class.

Adams (2013) opined that to apply STAD, the teacher must follow five steps. The first work of the teacher is to present the new instruction to be learned. The group associates will then read the instruction till they know the instruction. Individual questions are observed on the learning instruction that was studied. The teacher then merges the scores to generate group scores. Associate of the winning group are given recognition and awards and a weekly publication will recognize the groups with the maximum scores. STAD strategy is most suitable method for teaching a well-planned concept with lone accurate answers, like numeric calculations and scientific concepts. Nevertheless, it can effortlessly be modified for use with a less well-planned aims by integrating a more open-ended evaluation, like an essays exercise. Consistently, STAD (Students Teams-Achievement Division) according to Rai (2007) is one of the numerous approaches in cooperative learning, which helps promote collaboration and self-regulating learning skills. STAD also gives room for interaction among students, improve positive attitude towards subject, better self-esteem, increased interpersonal skills.

Furthermore, Student Teams-Achievement Division (STAD) instructional strategy has been known as one of the most user-friendly cooperative learning. This method involves a process where a teacher presents task to student to learn as a team, after which the team will be assessed and scored individually and jointly. The team that has the maximum score is pronounced the winner. The work of Jolliffe (2005) conveyed STAD to be a tool that can be employed to advance student performance and social skills. Gawe and Vakalisa, (2003) also shared the same assertion.

Students Team-Achievement Division known as STAD is one out of many teaching strategies in cooperative learning. Students in the STAD method class are assorted with such variety of achievement levels, gender and ethnicity, talents, capabilities (Slavin, 1994). Team recognition is intricate through STAD. It also stimulates and gives rooms for student to share ideas through group work, and also open door for group responsibility to foster individual learning (Ocampo & Bascos-Ocampo, 2015). Some of the evaluations in STAD than can be used are group recognition, individual improving scores, quizzes, group study, or lecture presentation (Slavin, 1995). Most of the time in STAD, instructors will form students in a small group that is usually less than four individuals. For a start, the instructor will present a topic lesson. Then, the instructor will create a task or an activity to stimulate the students' teamwork of a start.

Later, a bigger activity is given with an assessment or a series of assessment. This task the students were told to work in a team. In order to enhance the group task, all students are required to help each other using multiples learning resources such as online, mobile learning applications, books, maps and many other sources that are comfortable for them to enhance group discussion and develop creativities, (Teemuangsai, 2013). Finally, it is important to note that all students will be given a specific test on what that they have learnt from their previous task and group members. This is an individual evaluation with no team work. Students' quiz scores are compared to their own previous average performance. Point will be given to students that surpass his initial scored point, after which the scored point will be sum-up to generate the group score point. The group that meet certain benchmarks may possibly receive rewards just before the expiration of the task.

In the words of Slavin (1995), cooperative learning is a productive learning method that is suitable when there are varieties of learner in the classroom, when this approach is applied it gives learner the opportunity to learn in different ways. STAD is a functional learning strategy which stimulates learners to assist one another to have an in-depth understanding of lesson given to them by the teacher. STAD ensures team members perform well within the group and also outside the group. This system contains five major features which are class presentation, teams, questions, learner improvement and team reward.

Rosini (2000) conducted a study to investigate the effectiveness of STAD learning strategy on student attitudes and retention. The outcome of research showed that there is no substantial variance among the dependent variables and the teaching strategies employed. There was no noteworthy variance in student disposition to teaching methods. Also the researcher concluded that cooperative learning was found to be effective than non-cooperative learning group. Wyk (2013) examined the influence of STAD as a cooperative learning in inculcating the knowledge of Economic on secondary school students. 229 students and 8 teachers were sampled respectively. The students were given a multiple choice test in economics. The result shows that STAD will enhance the understanding of learner in relation to the present-day economic issues compared to other teaching strategy.

In relevant research, an experimental study was done and effect of STAD was used by Tran (2013) to investigate the performance of Mathematics students. The outcome shows that STAD was effective when compared with student that were taught with lecture method. The outcomes of the study also reported that the experimental group had significantly higher scores than the control group on both Enjoyment and Value scales of attitudes toward

mathematics. The study concluded that STAD was effective in battenning the achievement level of participating students and in promoting the positive attitudes of students toward mathematics in the Vietnamese high schools.

In a comparative study conducted by Okechukwu, Sylvester, Adeniyi and Daniel (2016), the authors investigated the effect of Think-Pair Share and STAD on Economics Students performance. It was submitted that the two strategies greatly improved the performance of Economics students. However, STAD was reported to be more effective than the other strategy that was used in the study and also girls did better than boys.

Appraisal of the Literature Reviewed

Reviewed literature revealed that scholars and researchers have worked on teaching and learning of Economics. it is a concept that was incorporated into to school curriculum most especially at senior level. Onuka and Durowoju (2010) stressed that Economics at whatever level in the school curriculum is to satisfy three criteria of developing the knowledge of economic dimension of the society, the capacity to think objectively about economic problems and seeking to achieve maximum economic performance and numeracy. These cannot be achieved without the use of appropriate teaching strategy.

The study evaluated Jean Piaget (1896–1980) theory of Cognitive development and Social Interdependence Morton Deutsch's (1949,1962). While Piaget's ideas have been widely interpreted as supporting the creation of classroom environments where students play active roles as they engage in real or at least realistic tasks (Slavin, 2011). Different supporters of this model have explained that the use of mutual learning practice should be promoted in academic settings. Some of these researchers submit that this practices will enable learners

teach and learn from one another and the same time, it will promote intellectualism among them.

In the words of Slavin (2001), when a students have access to an encompassing and detailed explanations, such learners acquire more knowledge than a learner who works alone. Moreover, by mentally rehearsing and then presenting information to others enhances one's own retention of the content (Putnam, 2001). Thus, cooperative learning incorporates cognitive science and can increase students interaction and develop their thinking skills. As such, dialogue among students help them explore and clarify difficult concepts. And learning is often achieved most in conversation (Johnson & Johnson, 2008).

The review indicated that several researches have been done to ascertain the effectiveness of cooperative instructional strategies. Studies by Grasha and Yangarber-Hacks (2000), Jolliffe (2005) and Shan-Ying (2014) have also shown that strategies involving students in cooperative and competitive activities promote higher achievement. It was also observed that this study is similar to Yusuf (2004), Okoli (2011), Muhammad (2011) and Okechukwu, Sylvester, Adeniyi and Daniel (2016) with regards to purpose. This is because the researches were done to ascertain the effects of two participatory instructional strategies which are cooperative and competitive in nature. Furthermore, studies conducted by Shan-Ying (2014), Okechukwu, Sylvester, Adeniyi and Daniel (2016) on instructional strategies also reflected the efforts aimed at finding means of enhancing performance of students in Economics using student-teacher centered strategies. The researcher observed that, there were gaps that the previous researches did not fill such as the effect of Jigsaw II and STAD and also the effectiveness of these techniques on gender was unfounded. Based on this, this

research tried to find the effect of Jigsaw II and STAD on secondary school Economics students' performance.

Lastly, it is noteworthy to state that while several steps were carefully and rigorously taken to spread the scope of the literature review on the Jigsaw II and STAD. There may however, be some views and opinions in literature which may not have been reviewed. Also, the researcher's voice in this study is informed by the views, opinions and findings as reflected in the literature review. Therefore, the review does not represent the diverse opinions of laymen, market women, students and parents; except those found in both printed and online published literatures.

Theoretical Background

This study would be substantially guided by cognitive-developmental and social interdependence theories as widely applied in education practices and which is represented by different opinions, view and arguments of researchers in the of field of education. Jigsaw II and STAD has its root in philosophy and psychology such that its general principles and applications have largely been incorporated in the exercise of teaching and in developmental theories mainly based on the theories of cognitive-developmental theory by Jean Piaget and social independence theory by Vygotsky (Johnson & Johnson, 2001).

Cognitive Developmental Theories: Jean Piaget (1936) was a Swiss psychologist who was particularly concerned with the way thinking develops in children from birth till young adulthood (adolescents) popularly referred to as Piaget's theory of cognitive development (Johnson & Johnson, 2001). To understand the nature of this development, Piaget carefully observed the behaviour of his own three kids. He used to present problems to them, observe

responses slightly after the situations and again observe their responses. Piaget called this method of exploring development clinical interview which explains how a child constructs a mental model of the world. He disagreed with the idea that intelligence was a fixed trait and regarded cognitive development as a process which occurs due to biological maturation and interaction with the environment.

Piaget was the first psychologist to make a systematic study of cognitive development. His contributions include a stage theory of child cognitive development, detailed observational studies of cognition in children, and a series of simple but ingenious tests to reveal different cognitive abilities. According to Piaget, children are born with a very basic mental structure (genetically inherited and evolved) on which all subsequent learning and knowledge are based (McLeod, 2018). Piaget is of the opinion that children love to explore and their mental capacity developed as they observe and explore their environment through their sense organs. The theorist further stated that, between early stages and teenage years, children pass through different developmental phases which are correlated with brain development and growth.

Piaget's developmental theory has been subject to criticism in the light of following:

1. Socio-cultural approach: children's thinking is affected by social interaction.
2. Core Knowledge approach: infants and young children have and use a lot of innate mental machinery for complex abstract thought
3. Information processing approach: children's thinking is a computational process and their thinking is not as consistent as the stages suggest.

The aforementioned criticisms may hold water; however, Piaget's concept of development process of understanding working of the child's mind can be helpful to those

who are involved in teaching and other educational practices. He says that children pass through number of stages before the age of 14 years and a lot of care should be taken in child's training and development.

Social Interdependence Theories: Lev Vygotsky (1962) was a Russian psychologist who employed the sociological approach. He portrayed children as social beings intertwined with other people who were eager to help them learn and gain skills. The central notion of this theory occurs when people have mutual goals to achieve and the decision of every person is determined by the individuals share common goals and each individual's outcomes are affected by the activities of others (Johnson & Johnson, 1998). Social interdependence occurs when each person's gains and losses influence the gains or losses of other individuals.

Slavin (2001) claimed that knowledge is social, constructed from cooperative efforts to learn, to understand, and the process of solving problems. Vygotsky viewed learning and development as dynamic processes that are situated in social and cultural contexts. Vygotsky stated that students must interact with person(s) who are more expert than themselves to go beyond their current development. From this statement, teachers should give students guidance and provide opportunities to work with more capable peers. Without cooperative activities to provide such learning environment, students may exhibit a retarded intellectual growth. This viewpoint revealed that learning takes place through social interaction and communication. Group members who have positive interactions will bring about good results. When both social interdependence and social dependence are absent, there are only individual efforts (Chien, 2004; McLeod, 2014). Without integration, learning can't increase. Therefore, this theory largely hinges on cooperative instructional strategies.

Children are regarded as apprentice where some of their abilities are culturally-dependent, cognitive change originates in social interaction and they are both learners and teachers.

Vygotsky, unlike Piaget, thought that abstract thinking could not develop on its own, but required language and Western schooling. To test this, Vygotsky tested peasants in Uzbekistan, varying in age, sex and exposure to the new schools that had been established. Of these variables, only schooling correlated with abstract thinking. Highlighted types of Social Interactions are indirect social supports, joint attention where infants and social partners focus on common referent, social referencing with children looking to social partners for guidance about how to respond to unfamiliar events, social scaffolding where more competent people provide temporary frameworks that lead children to higher order of thought area of proximal development being the range between what children can do unsupported and what they can do with optimal social support.

Some counter-evidences to Vygotsky's theory are premised on the fact that social interactions aren't as supportive as hypothesized, peers can be terrible teachers and some forms of syllogistic reasoning seem to be universal and not require schooling. Despite these drawbacks, the developmental theories of Piaget (School readiness, Hands-on science) and Vygotsky (Peer tutoring) continue to influence children's schooling. From the perspective of cognitive science, cognitive psychology research has found that if information is to be retained in memory, the learner must engage in elaboration of the material. The learner must cognitively rehearse and restructure information for it to be retained in memory and incorporated into existing cognitive structures (Webb, 2005). Therefore, an effective way of restoring information is to explain the learning materials to the other students. Piaget believed that conflicts occur when individuals cooperate. Cognitive disequilibrium is created by such

conflicts and in turn stimulates cognitive development (Eisner, 2002). Striking a balance therefore require further testing.

In the 1970s, Aronson, Blaney, Stephan, Sikes and Snapp (1978) applied Jigsaw, the well-known cooperative learning technique. Each member of the group has unique information that they must share with their teammates in order to achieve its common goal. Jigsaw II has been used in second language teaching using print, (Johnson & Johnson, 2001), and spoken texts (Harmer, 2008). Moreover, the concept of offering each group with particular information that must be elaborated has been popular in second language teaching. Jigsaw II emphasizes interdependence among group members. McGroarty, (2003) indicated that during the process of exchanging information, there are more communicative functions and oral practice opportunities. From these points, choosing Jigsaw II enables students to experience active listening, speaking and to share what they have learned with their group members. Therefore, this study was guided by the social independence theories in order to analyse the challenges facing teachers and learners on the learning of Economics by jigsaw II and STAD strategies in schools in Okene, Kogi State.

Conceptual Framework

Many learners are motivated to learn on the basis of the lesson type and the procedure and the methodology the teachers employ in the class. However, if teachers want to advance the performance of learners, they must be conversant and familiar with the students' aspiration, strength and weakness and with this, they are required to provide and initiate a supporting and stimulating learning condition in the classroom. When a teacher wants to teach Economics, it

is imperative for teachers to make sure learners are actively involved in the process of learning because when they participate, they will be enthusiastic to learn more.

The problems arising in most case is that students seldom participate or learn collectively, because teacher is the only person who can teach while the students listen to the teachers' explanations. In such situations, the students may be afraid to ask or participate during classroom activities. However, there are little method of teaching available that student can explore to learn effectively because in the class, teaching processes is centered on tutor alone. So many students will be less motivated and feel uninterested to learn. In order to remedy this challenge, this work employed cooperative learning strategy to achieve learning outcome.

Cooperative learning enables learner to study their own subject matter independently. To further described Jigsaw II and STAD, Slavin (1995) stated that in jigsaw, learners are asked question on all topics and the quiz scores is then sum up to form team scores. When the team wants to be successful, team members must not only accomplish their own tasks but also do a good job of sharing information of their tasks with their teammates. Jigsaw is one of cooperative learning strategy that reduces racial conflict among students, promotes better learning, improve students' motivation, and increase enjoyment of the learning. The Figure 4 depicts how cooperative learning strategy especially Jigsaw II works

Conceptual Framework

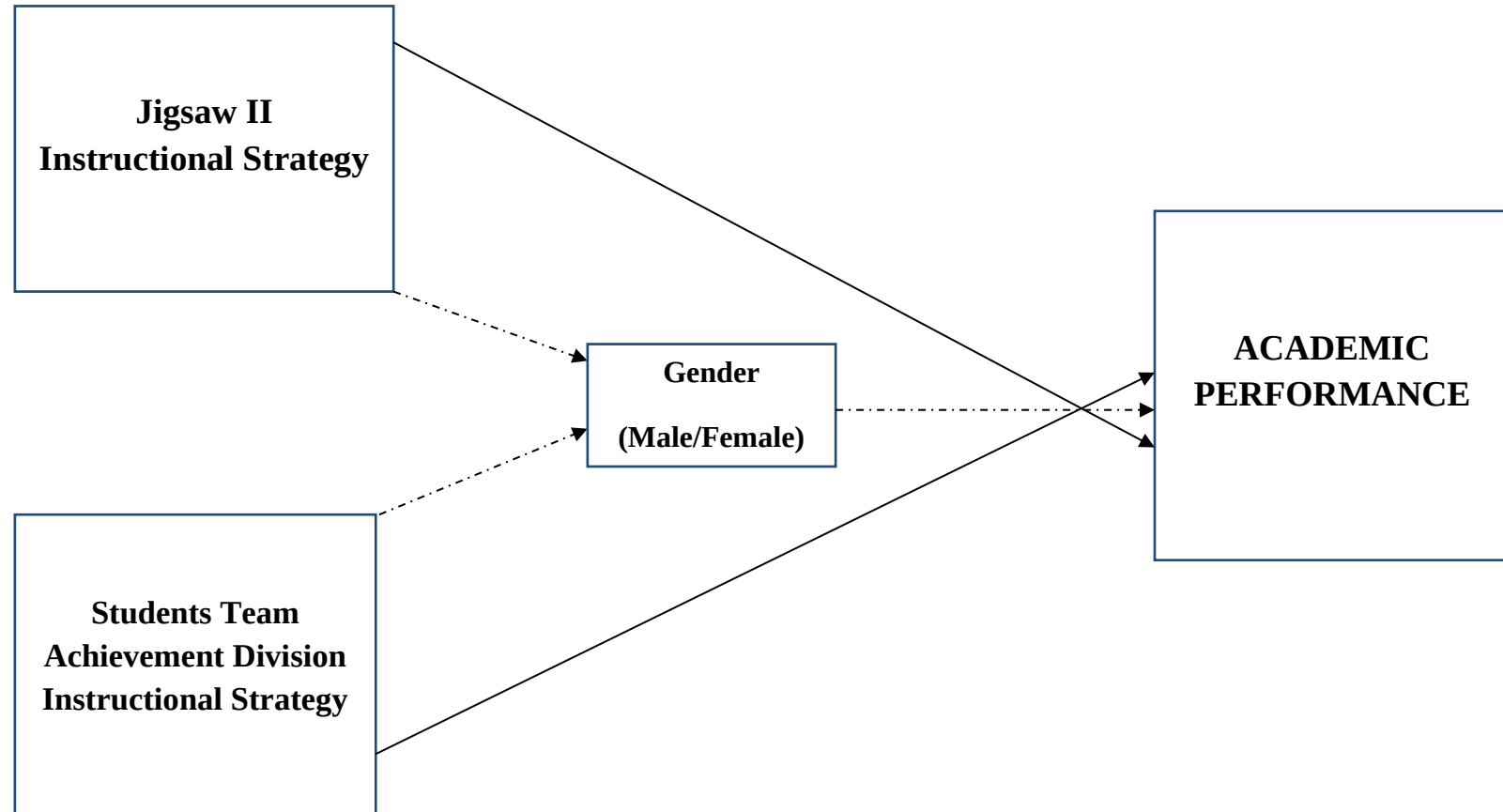


Figure 4: Conceptual Framework on Effect of Jigsaw II and STAD Instructional Strategies on Academic Performance with gender as a moderating Variable

According to Marilla (2010), a conceptual framework is all about the interconnection of ideas and how a particular phenomenon functions or influences other ideas. Therefore, a conceptual framework serves as the foundation for understanding the correlation patterns of interconnections across events, ideas, observations, concepts, knowledge, interpretations and other components of experience. Thus, to understand the effect of Jigsaw II and Students' Team-Achievement Division strategy on performance of students in Okene, Kogi State, the conceptual framework employed in the present study shows the effectiveness of both independent and dependent variables as captured in the research problem, questions and hypotheses. For the avoidance of doubt, this conceptual model examines the likely effect of Jigsaw II and STAD Strategies on the students' performance.

Consequently, in this model, Jigsaw II, Students' Team-Achievement Division Instructional Strategy are treated as independent variables, while academic performance is taken as dependent variable. On the whole, it is assumed from this model that Jigsaw II, Students' Team-Achievement Division Instructional Strategy might significantly determine the performance of students.

CHAPTER THREE

RESEARCH METHODOLOGY

This chapter was presented under the following subheadings:

- a. Research Design
- b. Population, Sample and Sampling Techniques
- c. Instrumentation
- d. Procedure for Data Collection
- e. Data Analysis Techniques

Research Design

Quasi-experimental design was employed in this study because of its appropriateness in finding the probable cause and effect correlation. It includes nonequivalent, control group design that requires non-random assignment of participants into groups. This is because secondary school classes mostly operate as intact groups and as such most school heads would not permit a situation where the classes would be disorganized or re-arranged for the purpose of carrying out a research work, (Shadish, Cook & Campbell, 2002). Also, the school syllabus cannot be altered being regulated by curriculum developers and also time bound. According to Yusuf (2006), quasi-experimental design has the capacity to control threats to internal validity. So, quasi-experimental design was employed to decide the efficacy of Jigsaw II and STAD strategy on the performance of Economics students.

To test the hypothesis set in this research, factorial design of 3x2 was adopted. Jigsaw II and STAD were contained in the first three factorial levels while the conventional method

of teaching is contained in the one control group. The second factorial level is gender occurring in either male (M) or Female (F). Of course, this design allowed for the experimental group to be given treatment but the control group will not be given any treatment. Conversely, the two name groups received the pre-tests and post-tests before and after the treatment respectively.

The graphical expression of the experimental design is as shown in Table 1.

Table 1: 3x2 Pre-test; Post-test Control Groups Factorial Design on Jigsaw II and Students Teams-Achievement Division Instructional Strategies

Groups (Teaching Method)	Pre-test	Treatment	Moderating Variable Gender	Post-Test
Experimental Group I (Jigsaw II)	O ₁	X ₁	M/F	O ₂
Experimental Group II (STAD)	O ₁	X ₂	M/F	O ₂
Control Group (CM)	O ₁	-	M/F	O ₂

Keys:

- O₁ = Pre-test for experimental (Jigsaw II, STAD) and Control groups
- X₁ = treatment for the experimental group 1 (Jigsaw II)
- X₂ = Treatment of the experimental group 2
- = Placebo (conventional method)
- O₂ = Post-test of experimental (Jigsaw II, STAD) and Control group
- M/F = Male and Female Students
- = Group non-randomization

Population, Sample and Sampling Techniques

The population for this study was all Senior Secondary one to three Economics students in Okene, Kogi State. The target population of the study consisted of all the two thousand, four hundred and thirty eight (2438) senior secondary school two (SSII) students in thirty (16) public secondary schools in Okene Local Government Area.

Purposive random sampling technique was used to select three secondary schools based on the following criteria:

1. The first and second schools were selected for experimental group I and 2 while the third school was the control group;
2. Schools that are co-educational (Male & Female);
3. The schools that operate the same admission policy as directed by Kogi State Government; and
4. Schools that are not situated within the same location.

Consequently, the sample for the study consisted of one hundred and forty-six (146) Economics students of senior secondary school two (SSII) drawn from three secondary schools out of thirty (30) secondary schools in the study area. Eighty-three (83) were male students while sixty-three (63) were female students. SS II was considered because they are in their penultimate class and they must have been exposed to greater portion of the subject curriculum instruction.

Instrumentation

The study made use of Economics Performance Test (EPT) one each for PRETEST and POSTTEST to gather information for the analysis. The EPT consisted of 50 multiple choice questions on Economics adopted from WAEC and NECO previous questions to cover SS II Economics topics on Population, Advantages & Disadvantages of Population, Over population, Labour Market and Supply of Labour being the first five topics to be covered in third term as specified in the Economics syllabus. The pre-test and post-test multiple choice questions were both rated “2 marks” for right answer, and “0” for the wrong answer. The

highest obtainable mark was 100 while the lowest score was 0. A period of 40 minutes was allotted for both tests as obtainable in Economics WAEC examination.

To ensure the face validity, the selected items were given to Economic experts in the Department of Social Sciences Education for evaluation and all correction were effected while the content validity of the instruments was established using a table of specification in line with Bloom's Taxonomy (Revised by Anderson & Krathwohl, 2001; Kaukab & Mehrunnisa, 2016) as shown in Table 2.

Table 2: Table of Specification for Economics Performance Test (EPT)

CONTENT AREA (WEEK)	Remembering	Understanding	Applying	Analysing	Evaluating	Creating	TOTAL
Population	2	2	2	1	1	2	10
Advantages & Disadvantages of population	1	1	2	2	2	2	10
Over population	2	1	2	1	2	2	10
Labour Market	1	2	2	2	1	2	10
Supply of Labour	1	1	2	2	2	2	10
TOTAL	7	7	10	8	8	10	50

To ascertain the reliability of the instruments (EPT), the 50 item test was administered on 30 SSII students of a secondary school comparable to the selected schools but not part of the ones selected for the study. Scores from both tests were subjected to parallel forms reliability analysis where the scores from both parallel tests were correlated using Pearson's Product Moment Correlation (PPMC). A reliability coefficient of 0.82 was obtained.

Teacher's Instructional Packages (TIP) on Jigsaw II, STAD and Conventional (Lecture) Instructional strategies as well as Lesson Plans for executing each of the strategies were also developed as follows:

Teacher's Instructional Package (TIP): the study used TIP as applicable for the three groups.

The teachers guided the students in using the package. This reduced the variation, which may have existed among the teachers used in the study. TIP consisted of various steps that the teacher took in Jigsaw II, STAD and Conventional instructional strategies. The teaching instruments were used for the selected topics of Economics as shown on Tables 5 and 6. The teaching instruments also described the student's activities such as question and answer section. During the time between the pre and post-tests, the experimental groups will be given treatments for a period of five weeks. Students in the experimental groups were taught the selected topics with Jigsaw II and STAD.

Instructional Package on Jigsaw II Instructional Strategy (Appendix III)

Introduction: The teacher divided the student into Home groups of 5 to 6 heterogeneously and introduced the lesson in their Home group. He further explained the steps involved in the instructional strategy to be as follows.

Step 1: Teacher's Activity: The teacher gives all relevant information on the part of the topic to be studied while students are still in their Home group.

Student's Activity: The students listen attentively while still in the home group.

Step 2: Teacher's Activity: The teacher further divides the student into heterogeneous group of 5 to 6 persons based on each sub_ topic and teaches each group accordingly in order to make expert of each groups

Student's Activity: Students in each expert group listen attentively to the teacher.

Step 3: Teacher's Activity: While each of the expert groups are busy interacting, the teacher goes round to monitor their activities.

Student's Activity: Students brainstorm on the sub-topic given to them in their various expert groups.

Teacher's Activity: The teacher organizes the students back to their home group.

Student's Activity: The students share the knowledge gained in the expert group.

Teacher's Activity; The teacher gives quiz to the students.

Student's Activity; Students answer the quiz.

Teacher's Activity; Teacher summarizes the lesson.

Student's Activity; The students note their strength and weakness.

Assignment: The teacher gives the student assignment related to the next topic.

Instructional Package on STAD Strategy (APPENDIX IV)

Introduction: Students were divided into six-member groups. The classroom was properly arranged in order to monitor each member improvement for comparison. The following ensued:

Teacher's Activity: The teacher presented the subject matter.

Student's Activity: The students listened and watched the teacher presented the lesson.

Teacher's Activity: The teacher organized the students in group whose members are homogeneous to discuss the lesson

Student's Activity: The students collaborated in their groups.

Teacher's Activity: The teacher set in for quiz.

Student's Activity: The student took individual quizzes. Students were not permitted to assist each other during the test.

Teacher's Activity: The teacher went round to take note of the activities in various teams and award scores

Student's Activity: Students watched keenly

Teacher's Activity: Teacher recognized teams that perform well and appraised them with awards.

Student's Activity: Students watched and got encouraged and motivated.

Teacher's Activity: The teacher summarized the lesson

Student Activity: The student noted their strength and weakness.

Assignment: The teacher gave assignment that is related to the next topic

Conventional Instructional Package for Lecture Strategy (APPENDIX V)

Students in the group were taught the same subject matter during the same time span using lecture method as designed by the researcher

Step 1: Teacher's Activity; The teacher introduced the lesson by asking students to explain the lesson

Students Activity; Student reacted to the teacher question by defining the topic

Step 2: Teacher's Activity: The Teacher then explained the topic

Student's Activity: Students listened and made note to correct any previous misconception about topic.

Step 3: Teacher's Activity: The teacher presented the subject matter.

Student's Activity: The students listened.

Step 4: Teacher's Activity: The teacher assessed the lesson taught.

Student's Activity: The student reacted to teacher's questions.

Step 5: Teacher's Activity: The teacher summarized the lesson.

Student's Activity: Student listened.

Step 6: Evaluation: The teacher requested the students to explain the concept being taught.

Step 7: Conclusion: The teacher summarized the lesson by emphasizing the key concepts, and also the teacher presented the next topic to the student for better preparation.

Assignment: The teacher asked the students questions on the next topic.

The TIP was given to lecturers in the Department of Social Science Education (ASSE) and Economics teachers for assessment. The report of these experts guided the production of the final draft.

Procedure for Data Collection

The researcher obtained a letter of introduction from the Head of Department of Social Sciences Education, University of Ilorin. This enabled the researcher to seek permission from the principals of the participating schools before the research was carried out.

In carrying out the experiment, the two experimental groups and one control group were pre-tested, then the experimental groups were exposed to treatments by teaching them with Jigsaw II (experimental group I) and Students Teams-Achievement Division (experimental group II) instructional strategies. This was done for a period of five weeks and two sessions were done per week, making it ten sessions in total. Participants in the control group were also taught in the same duration but lecture teaching strategy was employed. After week 5, all the participants in both the control and experimental groups were post-tested using the validated 50-item Economics Performance Test (EPT).

Furthermore, the researcher was assisted by two research assistants for the five weeks that the study lasted. Specifically, a training programme was conducted for the two research assistants where the rudiments and procedures of the teaching packages were explained to them. The training fortified them effectively to carry out the treatments. In summary, the seven-week experiment was organized as follows:

Week One: Training of Research Assistants and Pre-test.

Week Two to Week Six (1st and 2nd Periods): Students in the experimental and control groups were taught the topics selected.

Week Seven: Post-test

Ethical Considerations: The researcher adhered strictly to the best practices obtainable in educational research of this nature (i.e. quasi-experimental). From the schools sampled, in order to get the opinion of the participants, the researcher through a note sought their consent and the implication of the study was made known to them. The researcher also informed the research participants that every information that will be elicited from them will be treated with utmost confidentiality. Also there was a provision for any participant that may want to know his/her scores at end of the whole exercise and also participants that may want to know the outcome of the research could do so by making a formal request to the researcher.

Data Analysis Techniques

The demographic characteristic of the participants was described using pie chart. The research questions raised in the study was answered with the following; Mean, Standard-Deviation and Skewness. In the same vein, Analysis of Co-variance (ANCOVA) was used to test the research hypotheses at 0.05 level of significance. Duncan's post-hoc was employed to detect the most effective instructional strategy among them.

CHAPTER FOUR

DATA ANALYSES AND RESULTS

This chapter presented result of data analysis of the effectiveness of Jigsaw II and STAD teaching techniques on performance of economics student in Okene, Kogi State, Nigeria. The outcomes of the data analyzed were represented in such a way as to highlight the respondents' demographic information, research question, test of hypotheses and summary of findings. The hypotheses were tested at 0.05 level of significance.

Demographic Information of Participants

This section presented the demographic information of participants (Senior Secondary II students in Economics) using descriptive statistics of percentages resulting from the frequency counts of the participants. Results are shown in Table 3.

Table 3: Demographic Information of Study Participants

Categories	Characteristics	Frequency	Percent
Gender	Male	83	56.8
	Female	63	43.2
	Total	146	100.0
Groups	Control	51	34.9
	Jigsaw II	53	36.3
	STAD	42	28.8
	Total	146	100.0

As shown in Table 3, 83(56.8%) of the respondents were males while 63(43.2%) were females. This shows that more males participated in the study than females. Also, Table 3 shows 51(34.9%) of the students belongs to Control Group, 53(36.3%) belongs to JIGSAW II treatment group while 42(28.8%) students belong to STAD treatment group. This shows that the Jigsaw II treatment group had the largest number of participants

Answering of Research Questions

Research Questions One: *The academic performance of Senior School students exposed to treatments in Economics?*

To answer research question one, student's posttest scores were used for the computation. The test was graded over 100, a mean score of 50% and above was indicative of above average performance using descriptive statistics of mean and standard deviation as shown on Table 4.

Table 4: Mean, Standard Deviation, Skewness & Kurtosis of Students' Academic Performance

Groups	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Standard Error
Control	51	18	61	33.51	10.93	0.47	0.33
Jigsaw II	53	24	64	50.68	9.01	-0.85	0.33
STAD	42	48	100	77.14	13.96	-0.03	0.37

As shown on Table 4, the mean academic performance of students in Economics in the control group is 33.51 with a standard deviation of 10.93 and a Skewness of 0.47. Respondents taught Jigsaw II had a mean of 50.68 with a standard deviation of 9.01 and a Skewness of -0.85 but respondent taught with STAD had a mean of 77.14 with a standard deviation of 13.96 and a Skewness of -0.03. This shows that students' in the control group had a below average while students in the treatment groups (Jigsaw II and STAD) were above average in their academic performance in Economics. In terms of the normal distributions curves, the distributions are said to be normal as values for the control and treatment groups (Jigsaw II and STAD fall within -2 and +2).

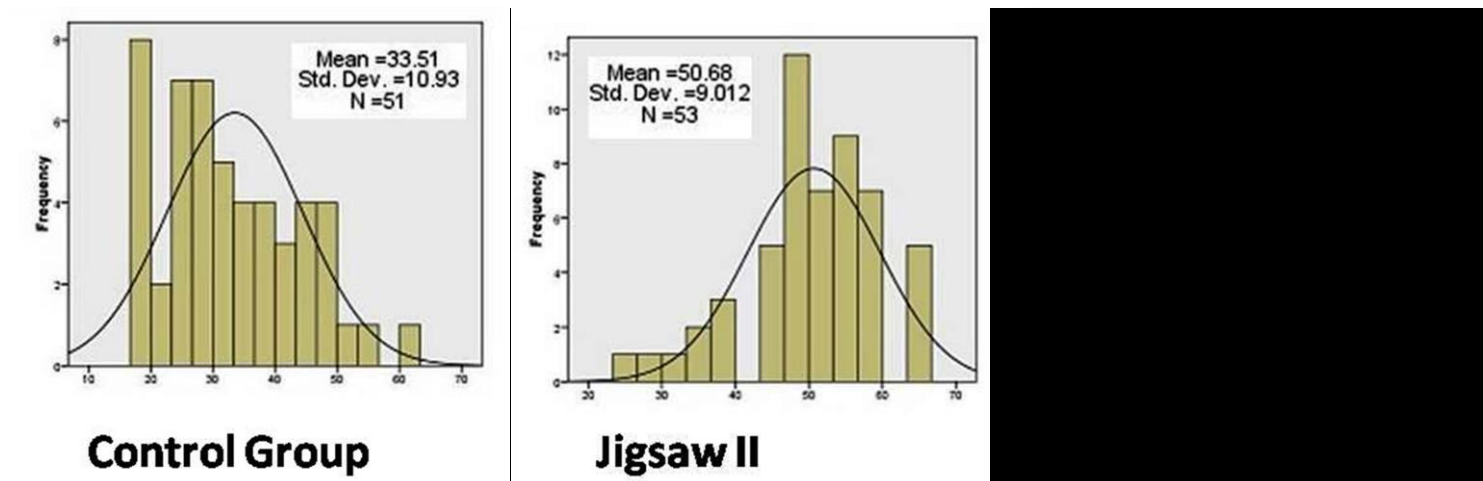


Figure 5: Normal Distribution Curves of Students' Academic Performance in EPT Posttest for the 3 Groups

As shown in Figure 5, the distribution curves show a positive skewness for the control group and negative skewness for the experimental groups (Jigsaw, II and STAD) respectively. The positive skewness shown for the control group is indicative of students' below average performance with more students having low scores in the Economics performance test while the negative skewness for students in Jigsaw II and STAD groups is indicative of students' above average performance with more students having high scores in the Economics performance test.

Test of Hypotheses

Hypothesis One: *There is no significant effect of Jigsaw II instructional strategies on secondary school students' performance in Economics in Okene, Kogi State, Nigeria.*

To test hypothesis 1, students' pre-test and post-test scores in Economics Performance Test (EPT) for the experimental group I (Jigsaw II) and control group were analysed using one-way ANCOVA at 0.05 level of significance and the result is shown in Table 5.

Table 5: ANCOVA Summary table on Effect of Jigsaw II on Senior School students' academic performance in Economics

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Remark
Corrected Model	7836.64 ^a	2	3918.32	39.49	.00	
Intercept	8400.87	1	8400.87	84.67	.00	
PRETEST	174.94	1	174.94	1.76	.19	
GROUP	7714.14	1	7714.14	77.75	.00	S
Error	10021.35	101	99.22			
Total	203589.00	104				
Corrected Total	17857.99	103				

Table 5 shows that calculated value of $F(1, 77.75)$ significant at 0.05 alpha level. The null hypothesis one is rejected since the P-value 0.00 is less than 0.05 alpha level ($0.00 < 0.05$). This means that the Jigsaw II instructional strategy has significant effect on the performance of Economics students. The means and standard deviation for Group who participated in the study is shown on Table 6.

Table 6: Dependent Variable: POSTTEST SCORES

GROUP	N	Mean	Std. Deviation
CONTROL	51	33.48 a	8.50
Jigsaw II	53	50.71a	6.15

a. Covariates appearing in the model are evaluated at the following values: PRETEST = 34.63.

As shown in Table 6, that the mean scores for students in the control groups (N: 51; Mean: 33.48) while the mean scores for students in the treatment groups (Jigsaw II) was (N: 53, Mean: 50.71). This shows that students exposed to treatments (Jigsaw II) performed better than their colleagues in the control group and because of this the group is responsible for the significance recorded.

Hypothesis Two: *There is no significant effect of Students Teams-Achievement Division on secondary school students' performance in Economics in Okene, Kogi State, Nigeria.*

To test hypothesis 2, students' pre-test and post-test scores in Economics Performance Test (EPT) for the experimental group II (STAD) and control group were analysed using one-way ANCOVA at 0.05 level of significance and the result is shown in Table 7.

Table 7: ANCOVA Summary table on Effect of STAD on Senior School students' academic performance in Economics

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Remark
Corrected Model	43995.31 ^a	2	21997.66	143.25	.00	
Intercept	15437.27	1	15437.27	100.53	.00	
PRETEST	145.50	1	145.50	.95	.33	
GROUPS	43989.68	1	43989.68	286.47	.00	S
Error	13820.39	90	153.56			
Total	321177.00	93				
Corrected Total	57815.70	92				

Table 7 shows that calculated value of $F(1, 286.47)$ significant at 0.05 alpha level. The null hypothesis two is rejected since the P-value 0.00 is less than 0.05 alpha level ($0.00 < 0.05$). This implies that the STAD instructional strategy has significant effect on Senior School students' academic performance in Economics. The means and standard deviation for Group who participated in the study was shown in Table 8.

Table 8: Dependent Variable: POSTTEST

GROUPS	N	Mean	Std. Deviation
CONTROL	51	33.51	10.930
STAD	42	77.14	13.963

a. Covariates appearing in the model are evaluated at the following values: PRETEST = 34.46.

As shown in Table 8, the mean scores for students in the control groups (N: 51; Mean: 33.51) while the mean scores for students in the treatment groups (STAD) was (N: 42, Mean: 77.14). This shows that students exposed to treatments (STAD) performed better than their counterparts in the control group and as such the group responsible for the significance recorded.

Hypothesis Three: *There is no significant effect of Jigsaw II and Students' Team-Achievement Division on secondary school students' Economics performance in Okene, Nigeria.*

To test hypothesis 3, students' pre-test and post-test scores in Economics Performance Test (EPT) for both experimental groups I and II (Jigsaw II and STAD) as well as the control group were analysed using one-way ANCOVA at 0.05 level of significance and the result is shown in Table 9.

Table 9: ANCOVA Summary table on Effects of Jigsaw II and STAD on Senior School students' academic performance in Economics

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Remark
Corrected Model	44106.60 ^a	3	14702.20	115.03	.00	
Intercept	20059.44	1	20059.44	156.94	.00	
PRETEST	39.70	1	39.704	.31	.58	
GROUPS	44100.95	2	22050.48	172.52	.00	S
Error	18149.73	142	127.82			
Total	461525.00	146				
Corrected Total	62256.34	145				

Table 9 shows that F calculated value (2, 172.52) significant at 0.05 alpha level. The null hypothesis three is rejected since the P-value 0.00 is less than 0.05 alpha level ($0.00 < 0.05$). This implies that treatments (Jigsaw II and STAD instructional methods) have significant effects on Senior School students' academic performance in Economics. A follow up post-hoc test (Duncan) was carried out to find the sources of the difference as shown in Table 10.

Table 10: Duncan's Post hoc table on source of significant difference with Control, Jigsaw II and STAD instructional strategies

GROUPS	N	Subset for alpha = 0.05		
		1	2	3
CONTROL	51	33.51		
JIGSAW 11	53		50.68	
STAD	42			77.14
Sig.		1.000	1.000	1.000
Means for groups in homogeneous subsets are displayed.				

As shown in Table 10, students in STAD group in subset 3 had the highest mean value of 77.14, followed by students in Jigsaw II group in subset 2 who had a mean score of 50.68 and while students in control group in subset 1 with a mean of 33.51. This connotes that

students in experimental group 2 taught with STAD instructional method was the group that brought about the significance and as such the most effective strategy for teaching Secondary School Economics.

Hypothesis Four: *There is no significant interaction effect of Jigsaw II, Students Team-Achievement Division and gender on secondary school students' Economics performance in Okene, Nigeria.*

To test hypothesis 4, students' pre-test and post-test scores of in Economics Performance Test (EPT) for both experimental groups I and II (Jigsaw II and STAD), the control group as well as data on gender were analysed using two-way ANCOVA at 0.05 level of significance and the result is shown in Table 11.

Table 11: ANCOVA Summary table on interaction effects of gender and treatments (Jigsaw II and STAD) on Senior School students' academic performance in Economics

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Remark
Corrected Model	44332.09 ^a	6	7388.68	57.30	.00	
Intercept	19899.99	1	19899.99	154.32	.00	
PRETEST	24.41	1	24.41	.19	.66	
GROUPS	42665.55	2	21332.77	165.43	.00	
GENDER	12.52	1	12.52	.10	.76	
GROUPS * GENDER	212.58	2	106.29	.82	.44	NS
Error	17924.24	139	128.95			
Total	461525.00	146				
Corrected Total	62256.34	145				

Table 11 shows that calculated value of $F(2, 0.82)$ is significant at 0.05 alpha level. The null hypothesis four is not rejected since the P-value 0.44 is greater than 0.05 alpha level ($0.44 > 0.05$). This implies that there is no significant interaction effect of gender on treatments (Jigsaw II and STAD) on Economics students' performance.

Summary of the Findings

1. Learners in the control group had a lower average whereas learners in the treatment groups (Jigsaw II and STAD) were above average in their academic performance in Economics. In terms of the normal distributions curves, the distributions are said to be normal. The positive skewness shown for the control group is indicative of students' below average performance while the negative skewness for students in Jigsaw II and STAD groups is indicative of students' above average performance.
2. Jigsaw II instructional strategy had a significant effect on the performance of Economics students. Students taught using Jigsaw II performed better than their colleagues in the control group and as such the group is responsible for the significant effect observed.
3. STAD instructional strategy had a significant effect on the performance of Economics students. Students taught using STAD performed better than their colleagues in the control group and as such the group responsible for the significant effect observed.
4. Jigsaw II and STAD instructional strategies had significant effect on the performance of Economics students. Duncan's Post Hoc test revealed STAD instructional strategy was the group that brought about the significance observed and as such the most effective strategy for teaching Secondary School Economics.
5. There was no significant interaction effect of gender and treatments (Jigsaw II and STAD) on the performance of Economics students.

CHAPTER FIVE

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

This study examined the effectiveness of Jigsaw II and STAD teaching method on the performance of Economics students, in Okene, Kogi State, Nigeria. Outcomes from the research were discussed and inferences were made as well as recommendations.

Discussion of Findings

Outcomes from this research indicated that participants in the control group had a lower average whereas participants in the treatment groups (Jigsaw II and STAD) were above average in their academic performance in Economics. The below average performance of the control group is in line with that of Adu, Ojelabi and Hammed (2009) and corroborated by Examiner's Report obtained from WAEC and NECO from 2011 to 2017. The report disclosed that student achievement in economics were below average with less than 50% of the students having grade A-C.

The below average performance of the control group could be as a result of the obvious argument that Economics is an abstract subject which requires the power of deduction and abstract reasoning for its effective teaching to students, (Nwigwe & Ugwu, 2017). Also, Yusuf (2010) explained that while students in these classes bracket are within the age bracket of 13 to 16, there is a notion that the knowledge of economics may not be successfully imparted to students before this stage (16 years). The low performance recorded could also be linked to teachers-approach method which considered to be traditional/conventional teaching strategy in most Nigerian senior secondary schools (Adunola, 2011; Khalil & Elkhider, 2016). The

above average performance of the Experimental groups could be linked to cooperative learning strategies employed which are proven to benefit students' learning in many ways. For instance, cooperative learning approaches have been found to positively impact the cognitive and affective outcomes, academic achievement as well as knowledge retention (Tran & Lewis, 2012).

Findings from this study revealed that Jigsaw II instructional strategy employed in experimental group 1 had a significant effect on the performance of Economics students. Students in the treatments (Jigsaw II) performed better than their colleagues in the control group because of this the group is responsible for the significance recorded. This finding is in line with a study by Muhammad (2011). The outcomes of the research showed that respondents in the experimental group did better than the control group participants. Correspondingly, Sahin (2010) also disclosed that there were substantial variances among the experimental and control groups in relation to their attitudes, academic achievement. Also it was concluded that the students in experimental group possess a right perception on the use of Jigsaw technique.

This finding is in line with the findings of Schreyer Institute (2007) who reported Jigsaw strategy as an efficient way to learn the course materials in a cooperation listening style. This might be so as the Jigsaw process encourages listening, engagement and empathy by giving each member of the group an essential part to play in the academic activity. Group members must work together as a team to accomplish a common goal: each person depends on all others. No student can succeed completely unless everyone works well together as a team. This cooperation by design facilitates interaction among all students in the class, leading them to value each other as contributors to their common task. Therefore, Jigsaw technique

has been proved to encourage students' participation in a classroom where learners have a critical role for success and this success depends on active cooperation and participation (Perkins & Tagle, 2011).

STAD instructional strategy employed in experimental group 2 had a significant effect on the performance of Economics students. Students in the treatments (STAD) performed better than their colleagues in the control group and because of this the group is responsible for the significance recorded. This finding is in line with the work of Jolliffe (2005), Wyk (2013) and Jacobs, Gawe and Vakalisa, (2003), the researchers stated that STAD's is an effective tool to improve student achievement. This might be so as STAD has consistently proved to be among the simplest and effective cooperative instructional strategies when it comes to improving student achievement of well-defined objectives in various subjects (Tiantong & Teemuangsai, 2013). Consistently, STAD according to Rai (2007) is one of the numerous approaches in cooperative learning, which helps promote collaboration and self-regulating learning skills. STAD also gives room for interaction among students, improve positive attitude towards subject, better self-esteem, increased interpersonal skills.

The findings on the effects of the experimental treatments (Jigsaw II and STAD instructional strategies) revealed significant effects on the performance of Economics students. As revealed by Duncan's Post hoc test, that students in experimental group 2 taught with STAD instructional strategy was the group that brought about the significance and as such the most effective strategy for teaching Secondary School Economics. This finding is in line with that of Okechukwu, Sylvester, Adeniyi and Daniel (2016) whose findings shows that Think-Pair Share and STAD greatly enhanced the performance of Economics students, where

STAD accounted mostly for the significance. This result could be as a result of STAD's suitability for teaching a well-planned concept with a lone accurate answers like numeric calculations and scientific concepts. Nevertheless, it can effortlessly be modified for use with a less well-planned aims by integrating a more open-ended evaluation like an essays exercise.

STAD method has consistently proved to be among the simplest and effective cooperative learning methods. It is a process where a tutor provides learning instruction to learners for them to learn it as a team. It also stimulates and gives rooms for student to share ideas through group work and also open door for group responsibility to foster individual learning (Ocampo & Bascos-ocampo, 2015). Cooperative learning strategies can motivate students and help them focus attention, organize information for understanding and remembering, monitor and assess learning (Crosnoe, 2004).

The study asserted that there was no significant interaction effect of gender and treatments (Jigsaw II and STAD) on the performance of economics students. This finding is in congruence with that of Onuka and Durowoju (2010; 2011) who reported that gender did not play any significant role in students' achievement in essay writing and business studies respectively. This might be so as gender alone cannot be used to explain how students' characteristic influences academic performance. Okechukwu, Sylvester, Adeniyi and Daniel (2016) were however different on this finding reporting that girls performed better in contrast to their male colleagues. Correspondingly, Yusuf (2004) and Alabi, (2004) conveyed that collective learning has an effect on the achievement of students in cooperative and competitive instructional strategies as in terms of instructional strategies, academic ability and gender affect students' academic achievement in cooperative and competitive instructional strategies.

It means that the composition and nature of the classroom interaction patterns among students as a whole affect their academic performance with learning.

Conclusion

Based on the outcomes of this research, it was deduced that the performances of students in economics was below average and that STAD and Jigsaw II strategies were capable of improving the performance of Economics students irrespective of whether the students were male or female.

Implications of the Study

The following implications can be drawn based on the findings of this study:

1. STAD teaching strategy enhances teaching-learning effectiveness in Economics.
2. Economics teachers should make concerted efforts to overcome the challenges that come with the implementation of these teaching strategies.
3. Gender is not a significant moderating variable on treatments (Jigsaw II and STAD) on the performance of Economics students.

Recommendations

Based on the outcomes of this research, as well as the drawn conclusions, the following recommendations were proffered:

1. Curriculum planners should encourage the use of STAD instructional strategy for teaching Economics while engaging in constant unannounced monitoring and supervision of schools to ensure compliance.
2. Teachers should constantly employ the use of STAD instructional strategy for Economics and be creative in deploying the method to circumvent the challenge of inadequate period.
3. Textbook authors should make for more learners activities in the curriculum documents.
4. Educational agencies such as Teaching Service commission, Ministry of Education, Teacher's Registration Council of Nigeria etc. should constantly provide workshops, capacity building and related efforts to train and re-train teachers on STAD instructional strategy.
5. School administrators should map-out incentives as well as recognition for teachers who go beyond the regular method of teaching to implement STAD techniques.

Limitation of the Study

The regular school periods do not provide ample time for deploying the cooperative instructional strategies used as other subject teachers were already waiting to take over the class once the Economics periods were over. Also, a parallel instrument was used for pretest and posttest.

Suggestions for Further Studies

The study was conducted in Okene, Kogi State Nigeria using SS2 students. This study could also be replicated using students from other classes as well as other locales combining both strategies. This study can also be replicated for other social science subjects.