

## Enhancing Effective Teaching/Learning of Economics in Senior Secondary Schools through Use of Computer Assisted Instruction

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### ABSTRACT

*This paper focuses on enhancing effective teaching/learning of economics in senior secondary schools through the use of computer assisted instruction. The objectives of teaching economics in schools were highlighted. The paper also identified the potentials of CAI and factors influencing the use of computer assisted instruction in teaching/learning of economics which include; teachers lacking the knowledge of the utilization of computer assisted instruction as well as lack of fund for the procurement of facilities for the effective implementation of the use of CAI. Also, the problem of irregular electricity supply that will aid the implementation of CAI in schools. Also discussed in this paper were the ways of ensure that the computer assisted instruction can be encouraged in the teaching/learning of economics in schools.*

**Keywords:** Learning of Economics, effective teaching, secondary schools, computer assisted instruction

### INTRODUCTION

Education system throughout the world are accepting the fact that information and communication technology (ICT) play and will continue to play a significant role in advancing knowledge and skills necessary in the modern world. As a result, the use of ICT based instruction such as computer assisted instruction dominates the education agenda globally.

However, evidence in the developed nations of the world appears to show that the effective utilization of computer assisted instruction in facilitating knowledge acquisition and dissemination is more common in such discipline as engineering, medicine, agriculture with positive outcomes and enhanced students' performance. And as such economics cannot be left out. Hence, the reason for this paper "enhancing effective teaching/learning of Economics in senior secondary schools through the use of computer assisted instruction".

Economics as a discipline was introduced into the Nigerian secondary school curriculum in 1966, much later than most other secondary school subject. Ever since economics was first taken as a school subject in West Africa School certificate in 1967, the number of schools that teach it and the number of students that take the examination has witnessed a phenomenal increase. Economics may be described as a social science that deals with the way individuals; firms' societies organize themselves to solve the universal problem of limited scarce resources. Economics is regarded as a social science because it studies human behaviours. Davies (2003) defines economics as the study of production, distribution and consumption of wealth in human society. Also Robbins cited in Oleabhiele (2012) sees economics as a science which studies human behaviour in relationship to ends and scarce means which have an alternative uses.

The two main areas of economics among the others are: micro and macroeconomics. Microeconomics is the study of economics at the level of individual consumer, individual firms in an industry, individual demand for commodity, and the unit price of product in a market. Apparently, there is no very sharp distinction between micro and macroeconomics. As microeconomics deals with the individual unit of an economy, the macroeconomics deals with the aggregation of the individual units of the economy. Thus, macroeconomics studies the economy as a whole. Macroeconomics looks at issues like the general price level, aggregate demand, aggregate expenditure, the level of unemployment in the economy among others.

### **OBJECTIVES OF TEACHING ECONOMICS AT THE SENIOR SECONDARY SCHOOL LEVEL**

Economics is concerned with human behaviour such as how people earn their living and make choice between alternatives in order to achieve maximum satisfaction. The objectives of the post-basic economics curriculum include to enable students: i) Understand basic economic principles and concepts as well as the tools for sound economic analysis; ii) Contribute intelligently to discourse on economic reforms and development as they affect or would affect the generality of Nigerians; iii) Understand the structure and functioning of economic institutions; iv) Appreciate the role of public policies on national economy; v) Develop the skills and also appreciate the basis for rational economic decisions; vi) Become sensitized to participate actively in national economic advancement through entrepreneurship, capital market and so on; vii) Understand the role and status of Nigerian and other African countries in international economic relationships; viii) Appreciate the problems encountered by developing countries in their effort towards economic advancement (FGN, 2008).

According to Eze (1983) the importance of the study of economics in schools is very clear. It enables both leaders and citizens to understand basic economics concepts, principles as well as to understand, appreciate and seek to improve the economic situation for the own social good. Also the understanding of economics is a pre-requisite for good citizenship. Furthermore, Adu (1991) states that the position of economics in secondary school curriculum has been strengthened because it has been accepted that it has some civil values because of some topics as "the element and determinants of national income, the structure and activities of labour unions, the working and influence of financial institutions". All these topics are expected to prepare the recipients. For life in modern society.

In spite of the importance and popularity of economics among Nigerian students, performance at senior secondary school level had been declining (Ahmed, 2008). The desire to know the causes of the poor performance in economics has been the focus of researchers for some time now. It has been observed that poor performance in the economics is caused by wrong selection of teaching methods. Thus, the needs to introduce an innovative teaching/learning strategy that will help improve the quality of economics instruction and as well enhance students' dismal performance in both internal and external examinations.

Computer assisted instruction involves the application of computer as a means of presenting instruction. This also means that computer is applied directly during teaching and learning, while (CAL) involves learning through computer. (CAI) is instructional sequence and questions that must first be pre-programmed; and then the students use the pre-programmed instructional materials in an interactive way. Examples of CAI sequence are: i) Drill and practice, ii) Simulations, iii) Gaining, iv) Socratic questioning, v) Testing and tutorial instruction.

### **Drill and Practice**

Drill and practice as the interaction between the learner and the computer programme use to supplement the regular teaching process (Akpan and Ajayi, 2004). They further suggests that it consists of a set of questions and answers usually computer generated in random to individual capacities and needs. Akpan and Ajayi (2004), also point out that drill and practice go beyond memorization of facts but ask questions that involves using procedural knowledge e.g. if an economics learner makes a mistakes, may be providing an answer wrongly, the drill programme offers the procedure to getting the answer right not just determining whether the answer is wrong.

### **Simulation**

This is the representation of a real oriented process (Akpan and Ajayi, 2004). Simulation is an activity or situation that produces condition which is not real but has the appearance of being real, used especially for testing something (Becker, 2000). The computer gives students model with which to experiment. Stimulation method has a dynamic ways of presenting thought, provoking real life ideas, problems and issues in the past and present life.

### **Gaining**

It is the use of computer assisted instruction in addition to traditional teaching method which is more effective in testing the analysis of the data gained from a test.

### **Socratic Questioning**

This involves students' activities of reading, observing, asking and answering of questions, gathering and organizing information as well as analysing and interpretation of information. The computer provides inquiring for both learners and teachers in various forms, mostly through the internet, but the ones to be considered here are the data base and software programme (CD Rom). This inquiry mode allow students to ask questions within the context of lesson

### **Testing and Tutorial Instruction**

This tries to teach economics learners new material and ideas when employed in the economics classroom. It offers progressive ideas or level of task. In essence, it monitors students' progress and to present remedial instruction when required before proceeding to advanced level of training.

The potential benefits of Computer Assisted Instruction (CAI) cannot be underestimated in the contemporary world. There is a plethora of established findings on the instructional value of computer, particularly in advanced countries. There are now several CAI packages on different subjects. In the world today, a wide variety of computer assisted instruction applications continue to make their way into the mainstream of instructional practice. Newly emerging technologies continue to be powerful and serve as catalysts in promoting more effective learning. The use of computer assisted instruction in teaching and learning process can be categorised into two basic areas namely: instructional strategy and knowledge resource (Ivowi, 2002). As an instrument for instructional strategy CAI can be used to teach any economics concepts to the learners at every nook and cranny of the globe.

The use of computer assisted instruction in teaching/learning of economics is rapidly becoming one of the most important and widely discussed issues in contemporary education policy (Thierer, 2001). Most experts in the field of education agreed that, when properly used CAI hold great promise to improve teaching and learning, in addition to shaping workforce

opportunities as well as enhancing the quality of employment prospects of economics graduates.

It is obvious that the current trend in research all over the world is the use of computer facilities and resources to enhance students' learning. This may be the reason why Handelsman, Ebert-May, Beichner, Bruns, Chang (2004) opine that "many exercises that depart from traditional method are now readily accessible on the web", even though teachers do not use these facilities. They further showed that the interactive approaches to lecturing significantly enhance learning. Ezeliora (1997) opines that with computer assisted instruction, individual difference of the students are accommodated such that slow and fast learners benefits from the instructional approach as the process can be repeated several times.

In a review of empirical studies on CAI, Cotton (1997) concludes, among others, that the use of CAI as a supplement to conventional instruction produces higher achievement than the use of conventional instruction alone. In addition, students learn instructional contents faster with CAI than with conventional instruction alone, they retain what they have learned better with CAI than with conventional instruction alone. Furthermore, computer assisted instruction has been found to enhance students' performance than the conventional instructional method in the teaching and learning of economics in schools (Karper, Robinson, and Casado-Kehoe, 2005). However, students taught using traditional instruction combined with the use of computer performed significantly better than students taught using traditional instruction in a school setting (Akour, 2006). Similarly, students taught statistics using lecture-plus-CAI obtained higher averages on midterm and final examinations than students taught using lecture method only (Basturk, 2005). From the analyses, it can be deduced that the teaching/learning of economics through the use of CAI will greatly enhance students' performance in both internal and external examinations.

The importance of computer assisted instruction is quite evidence from the educational perspective. Though the chalkboard, textbooks, radio, television and film have been used for educational purpose over the years, none has quite impacted on the educational process like the CAI. While the television and film impact only on the audio visual facilities of users, the computer is capable of activating the senses of sight, hearing and touch of the learners. The CAI has the power to provide higher interactive potential for the users to develop their individual, intellectual and creative ability. There no doubt that CAI provides productive teaching and learning in order to increase learners' creative and resourceful abilities especially in today's information driving society. Therefore, senior secondary students need to be taught economics by radically new educational program and variety of educational contents with multimedia playing pivotal role. And this is where computer assisted instruction comes to limelight.

### **FACTORS THAT INFLUENCE THE USE OF CAI IN THE TEACHING/LEARNING OF ECONOMICS IN SCHOOLS**

Education in many Nigerian communities is weak especially rural areas where teachers are deprived of up-to data information and other basic educational resources. As this wireless service becomes a reality, advance content plays a key role in the adaptation and long success of these new information architectures.

Some of the problems hindering the teaching of economics in secondary schools are that most of the teachers who are supposed to teach these computer assisted instructions do not have the basic knowledge of computer, since one cannot teach another what he/she does not know. This account for the various setbacks Nigeria has in keeping pace with the information world. Secondly, is lack of fund. In places where there are teachers with such basic knowledge of

computer there has been problem of inadequate finance to purchase computer that can be used for such instructions. This is largely because of little internally generated revenue. Thirdly, is the problem of infrastructural facilities like electricity. Computer instruments can only be possible with the help of electricity but since most of the secondary schools are located in places where there is no electricity, it becomes very difficult, if not impossible for the authority of the school concern to think or carryout such instructions. More so, a teacher who is not properly trained or qualified in the field of computer science will not execute the work of teaching economics using computer assisted instruction effectively.

Other challenges of the use of computer assisted instruction in the teaching/learning of economics in schools as stated by Aderinoye and Ojokheta (2004) include resistance to change from traditional pedagogical methods to more innovative and technology based teaching and learning methods by both students and academics. Equally, the over dependence of educational institutions on government for everything has limited institution's ability to collaborate with private sector or seek alternative funding sources.

## CONCLUSION

This paper focused on enhancing effective teaching/and learning of economics in senior secondary schools through the use of computer assisted instruction. Computer assisted instruction provides, promotes and sustains the zest for teaching and learning. It affords teachers the tool to provide a rich environment for the achievement of learning objective. And exposes the teachers and the students to new ways of teaching/learning with technology. The success of this innovative instructional strategy is that it provides the opportunity for the students to involve himself/herself in self-learning and facilitate individualized instruction as well as increased retention and motivation. As for the teachers of economics the use of CAI helps to enhance their capabilities in research and to cope with the trend and demand of the information society.

## RECOMMENDATIONS

1. There is an urgent need for all levels of government to provide schools with ICT facilities which will go a long way to empower the utilization of computer assisted instruction in the teaching/learning of economics in schools.
2. There is need for stakeholders in education to partner with the government to ensure funds are provided for school administrators to establish ICT centre to enhance the teaching/learning in schools through computer assisted instruction
3. There should be opportunity for teachers to undergo training in the use of computer assisted instruction through the organizing of workshop, seminar, conference, etc
4. The government should assist in the provision of adequate power supply to boost the utilization of computer assisted instruction in schools.
5. The curriculum of teacher education should emphasize the acquisition of ICT skills and computer literacy in order to provide a smooth transition for the utilization of computer assisted instruction in all educational levels.

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