

**EFFECTS OF COMPUTER SIMULATION PACKAGE ON SECONDARY SCHOOL
STUDENTS' LEARNING OUTCOMES IN ECONOMICS IN IFE EAST LOCAL
GOVERNMENT AREA OF OSUN STATE**

BY

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**A THESIS SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR
THE AWARD OF MASTER OF ARTS DEGREE IN EDUCATIONAL TECHNOLOGY
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DEDICATION

This thesis is dedicated to the ruler of the universe and the custodian of great wisdom, knowledge and understanding, God Almighty and to my dearest parents Late Mr. & Mrs. Fabeku.

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ABSTRACT

The study developed a computer simulation package for teaching Economics in senior secondary schools in Ife East Local Government Area. It also examined the effects of the package on students' academic performance in Economics and investigated the attitude of the students towards Economics in the Local Government Area. These were with a view to enhancing students' academic performance and attitude towards Economics.

The study adopted the pretest-posttest quasi-experimental control group research design. The population for the study consisted of Senior Secondary One (SS1) students in Ife East Local Government Area of Osun State. The sample consisted of 60 students in their intact classes from purposively selected public schools in the LGA. The schools were selected based on availability of computer pool. The two intact classes in SS1 were selected using simple random sampling technique. The classes were then randomly assigned to experimental and control groups. The experimental group was taught using computer simulation package. The control group was taught using the conventional teacher expository method of instruction. The research instruments for the study were Economics Achievement Method (EAM) and Students' Attitude Towards Economics Questionnaire Method (SATEQM). The Computer Simulation Package (CSP) developed is an interactive educational package. The simulation was designed through 3D activities application programme that allowed the user to create simulation and interactive programmes. The activities were developed through micro media flash and 3 player and cinema 4D presentation. Data collected were analyzed using mean and t-test statistics.

The results from the study showed that the CSP had a significant effect on the performance of the senior secondary school students ($t = 52.01, p < 0.05$). The results also showed a significant effect of the package on the attitude of students in Economics ($t = 95.0, p < 0.05$).

The study concluded that the computer simulation package developed enhanced students' academic performance and attitude towards Economics in Ife East Local Government Area of Osun State.

CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

The traditional approach to Economics teaching is rapidly becoming inadequate in modern teaching-learning process. More effective and innovative teaching techniques are required for tackling the complex economic problems, which have been introduced into present day classrooms. Various studies have shown that an instructional strategy is crucial to the understanding of Economics concepts. Effective instruction requires the teacher to step outside the realm of personal experience unto the world of the students. It is the students who must be engaged for learning to occur, the students are the one who must make the commitment to learn.

Many learners experience difficulties when learning economics concepts because the concepts are taught at a theoretical level with no visual and mental representations. These may account for the negative attitude of learners for studying Economics after the mandatory O-level, when compared to other subjects. Poor Learning outcomes of students in Economics had been observed in recent times, by Walstad (2001). This is supported by West African Examination Council (WAEC) and National Examination Council (NECO) 2011 to 2012. As a result of poor method of teaching, students see the subject as difficult, hence they develop negative attitude towards it. Other problems identified include lack of instructional materials, wide coverage of the subject, shortage of professionally trained teachers, and library facilities, students' attitude towards learning and inability of the teacher to explain some concepts locally, too much work load on teachers. Some authors blamed poor learning outcome in Economics to

the poor academic background of students in Business studies as taught at the Junior Secondary School classes by Nwokolo (2013).

It is a fact that Economics is capable of increasing the country's economy, provide employment opportunities, sustain and stabilize the national economy, thereby building a dynamic, strong and self reliant nation. The realization of the above may be hampered by ineffective traditional chalk and talk method of teaching Economics in the classroom. The old traditional classroom environment is too dull and teacher- centered. Therefore, educators should constantly seek new ways to improve instruction, so as to facilitate learning and to hold positive learning outcomes of their students. There is, therefore , the need for an improved method, which is capable of igniting positive revolution in Economics The main aim of teaching is to transfer knowledge to the learners. For effective teaching and learning to take place, the teacher needs to use different methods and techniques in teaching. by Adegbile (2002). Poor academic performance has also been attributed to poor teaching methods used by some teachers. The present Economics classroom does not provide interactive and collaborative environment needed by new generation of students who have been exposed to internet, computer usage, hand-set and other sophisticated gadgets. Learning takes place as student process, interpret and negotiate the meaning of new information. This is heavily influenced by the prior knowledge, values, expectations, reward and sanctions that shape the learning environment. What then can we use to shape the learning environment? How do we teach Economics in a way that student can use it, apply it, in general and work with it? Which is appropriate didactic approach that will permit students to broaden their conceptions and become aware that Economics is a dynamic instrument in solving real life problems? The questions above could not be answered without students engaging in modern learning.

The use of computer simulation techniques in instruction at different levels has been reported to be of high motivational value. This is one of the most distinctive features of computer simulation which makes it acceptable at all levels of teaching because if any teaching technique succeeds in creating motivation in learners, all other problems may be drastically reduced. The use of computer simulation techniques where students are allowed to project themselves into new classroom roles helps to improve classroom dialogue, active participation and transfer of learning. Thus experimentation with a realistic simulation gives the student insight on concept that is very difficult to conceptualize by conventional teaching method.

Generally, computer simulation employs selected aspects of a real – life situation. The usefulness of computer simulations in teaching cannot be undermined. Mere teaching the students on topics in the class may not be enough to achieve the desired mastery of the subject matter. Innovation like computer simulation in the class and outside the classroom could improve the mastery of a topic. He concluded that teachers should not limit themselves to the traditional method of teaching the students alone but they should accompany their teaching methods with innovative system such as simulation during instructional delivery by Olagunju (2005).

Computer simulations are more than just an interactive model or a collection of facts with which the learner interacts, but mimic a real world environment and allow students to make decisions based on short cases. Simulations require students to analyze situations, work in teams, and experiment with different variables. It provides the framework for learners to build on their existing knowledge and augment existing cases they already have in their memory. They are experience where learning is both interactive and dynamic. Despite the belief that the computer simulations have a lot of potential for teaching and learning there is still little knowledge about

it. There seems to be an intuitive belief that they can represent more modern learning environments and allow the construction of more meaningful knowledge.

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