

# EFFECT OF COMPUTER ON MALE AND FEMALE STUDENTS' ACHIEVEMENT IN SECONDARY SCHOOL SHORTHAND

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## Abstract

*The aim of this study is to investigate the effect of computer on male and female students' achievement in secondary school shorthand in Onitsha North Local Government Area. The study is a quasi experimental study. A total population of one hundred secondary students were randomly selected for the study. Two research questions and two hypotheses were used for the study. The hypotheses were tested at 0.05%. an achievement test in secondary school shorthand was used to collect data for the study. The findings showed that that there is no significant effect of computer on achievement of male and female students in secondary school shorthand. The research ended with a conclusion that female students achieved as much as male students in secondary school shorthand when they are thought using computer. It was recommended that secondary school shorthand teachers should use computer in teaching male and female students in secondary school shorthand.*

## Introduction

Shorthand is the representation of spoken sounds by character. It is a way of rapidly writing spoken sounds (Odea, Sykes, Watson and Williams, 1995). The earliest form of shorthand system is from Ancient Greece. Some ancient form of shorthand was used before this time. For instance, shorthand of Tir6 Ciceroø Amanuensis was used before 1599 when Timothy Bright published his 500 old symbols for words.

The importance of shorthand to the secretaries makes it possible to look at information communication technology (ICT) as a way of improving instructions and achievement of students in secondary school shorthand. An example of ICT is computer. Before this time, shorthand is used in transcribing shorthand to English language or typewriting was being used in transcribing of shorthand. Thus, the use of traditional method which is transcribing of shorthand without computer might have affected achievement of both male and female students in secondary school shorthand.

The poor achievement as shown by data collected from West African Certificate Examination Council In 2008 is as follows:- total number of students that sat for the examination is 413 students (76.03%) of 543 students that registered the subject. 43 students (10.41%) only scored credit and above, 17 students (6.54%) had pass level and 343 students (83.05%) failed the subject. This might be as a result of traditional method use in teaching them the subject. It then becomes necessary to use computer in transcribing the shorthand so as to enhance studentø achievement in the subject.

In shorthand writing, there are many types. Symbol shorthand which is the representation of sounds. Also in shorthand, there are many systems. In British common wealth, countries pitman system of shorthand is dominant and it is pitman system of shorthand that is used in this study. Pitman system of shorthand was introduced by Sir Isaac Pitman in 1937.

Some theories are used in teaching shorthand. One of the theories is Thorndike's Stimuli-response theory. According to the theory, all learning is a formation of bonds or connections between stimuli-response. The process of formation of connection depends on a number of variables which operate in the environment of the organisms.

Shorthand requires a lot of practice so that students can learn the skill in writing the characters. Thus the basic law of exercise in Thorndike's theory of stimuli-response is applied to shorthand learning. For Chautiam (1987), law of exercise is divided into two namely-law of use and law of disuse. The law of disuse states that other things being equal, the more frequent a modifiable connection between stimuli-response (S-R) is made, the stronger the connection and reverse is the case with law of disuse. In shorthand learning, the more students write dictations and practice it, the faster he becomes in writing it. This makes shorthand teachers to give students opportunities to practice and repeat the knowledge they got in the class.

Signal learning which is one of the learning types and theories listed by Gagne (1973) is also related to shorthand learning. In signal learning, the individual makes a general diffuse response to a signal. This is a classical conditioned response of Pavlor theory. In shorthand, it begins with meaning of shorthand and its importance's as well as first six consonants. Once the learner has learnt the first six consonants, as soon as the teacher dictates the first consonants, the learner can write them in shorthand.

Computer is a very vital device in the life of people and government generally. This makes it possible to introduce it to Nigerian curriculum and its innovation is also one of the things that led to the need to update the 3<sup>rd</sup> edition (1998) National policy on education to 4<sup>th</sup> edition (2004). For Nwafor (2007), computer is an electronic machine that accepts data through input devices processes it and provide result through output devices. Ibegbu (2003) states that computer helps in not only receiving information but in retrieving information t a high speed.

#### **Advantages of Computer in Education**

Computer has many advantages. Some of these advantages were given by Akudolu in Okwo and Ike (1996) as follows:-

- i. Computers provide dynamic interchange between the student and learning materials. The student is very active. What the computer do depends on the students actions. Computers are able to interpret students responses and act accordingly
- ii. Computers are the only teaching media that actually give individualized instruction to students. The branching programming used in computers makes it possible for each students to work at his own pace and to quit (terminate) a programme to take up another one without being compelled to get to the end of first programme.
- iii. Students obtain immediate feedback on their performances. This enables each student to know his strength and weaknesses. Computer Assistant Instruction (CIA) programmes do not only point out students's error, they also give suggestion as to why such errors have been committed.
- iv. Distance education programmes are facilitated through Computer Based Education (CBE).

- v. Learning content that requires repetition is best taught through CIA programmes. Computers are very patient and they repeat a particular thing several times without getting tired.
- vi. Computers facilitate the educational process by their abilities to store, manipulate and retrieve data at a tremendous speed.
- vii. Computers facilitate record-keeping in schools.
- viii. They facilitate lesson presentation and save the amount of time a teacher spends on the teaching of a topic. This enables the teacher spend enough time on lesson presentation.
- ix. Computer removes boredom from the learning process. They enable students enough time on lesson participation.
- x. Computers facilitate curriculum planning and implementation.

Computer can help secondary school shorthand students especially male and female students in transcribing what they have written in shorthand into English language. This could help to stop the use of typewriting which is becoming obsolete. The keyboard of computer resembles that of typewriting and even contains other keys that helps student to type very fast. Thus when it was used in transcribing shorthand by secondary school shorthand students, they came out with high achievement.

#### **Purpose of study**

The purpose of this study is to determine the effect of ICT (computer) male and female students in secondary school shorthand. Specifically, the aims of this study are:-

- i. To find out the achievement of secondary school students taught shorthand using computer.
- ii. To determine the achievement of male and female student in secondary school taught shorthand using computer.

#### **Research Questions**

The following research questions were posed for the study and they are:-

- i. What are the mean achievement scores of secondary school students taught shorthand using computer and those taught using traditional method?
- ii. What are the mean achievement scores of male and female students taught shorthand using computer?

#### **Research Hypotheses**

Two null hypotheses were tested at 0.05% level of significance. They are:-

- i. There is no significant difference in the mean achievement scores of secondary school students taught shorthand using computer and those taught by traditional method.
- ii. There is no significant difference in the mean achievement scores of male and female students in secondary school taught shorthand using computer.

**Research Method**

The research method used was a quasi experimental study with a population of male and female students in Onitsha education zone of Anambra State. A total of 100 students randomly selected were used for the study. An achievement test in the subject was used to collect data. Four experts did the face and content validation of the instrument.

**Result****Table 1: Post Experimental Versus Post Control**

Variables	No	Mean	Calculated t	Critical t	Decision
Experimental group	50	68.14	12.431	1.960	Reject
Control group	50	45	12.431	1.960	Reject

**Table 2: Post Male's Experiment versus Post Female's Experiment**

Variables	No	Mean	Calculated t	Critical t	Decision
Experimental group(males)	24	68.12	0.826	2.00	Accepted
Experimental group (females)	26	68.7	0.826	2.00	Accepted

Table 1 shows that the experimental group mean achievement scores which is 68.4 is higher than the control group mean achievement scores which is 45. Also the calculated t-test is higher than the critical t-test. Thus, there is significant difference in the mean achievement scores of students in secondary school taught shorthand using computer and those taught using traditional method.

In table 2, the mean achievement scores of male students is 68 while the mean achievement scores of female students is 68.7. There is not much difference between the mean achievement scores of male and female students in secondary school taught shorthand using computer. In addition, the calculated t-test is less than the critical t-test. This means that there is no significant difference in the mean achievement scores of male and female students in secondary school taught shorthand using computer conclusion.

Computer method is superior to the traditional method. It is better than the traditional method. Also, female students achieved as much as male students. This means that computer is good for both sexes.

**Recommendation**

The following recommendation was made.

- i. Secondary school shorthand teachers can use computer in teaching their students.
- ii. Computer can be used in teaching male and female students secondary school shorthand.

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