# EFFECT OF QUESTIONING SKILLS ON MICROTEACHING METHOD ON STUDENTS' ACHIEVEMENT IN SECONDARY SCHOOL COMPUTER.

**BY**

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## Abstract

*The study investigated the effect of questioning skill on micro-teaching on students' achievement in secondary school computer. It was a quasi experimental study in which two research questions and two research hypotheses were answered and tested respectfully. The study was carried out in Onitsha Education Zone of Anambra State with a population of fifty students randomly selected from the area. An achievement test in secondary school computer was used for data collection. Mean was used to answer the research question while t-test was used to test the hypotheses. The findings showed that there is significant difference in the mean achievement scores of students in secondary school taught computer using questioning skill on micro-teaching and those taught by conventional method. In conclusion, questioning skill on microteaching is superior to conventional method. It was recommended that secondary school computer teachers should use questioning skill on micro-teaching in teaching their students.*

## Introduction

Questions are statement that seeks response from the person to whom it is directed. When a question is asked, an answer or reply is expected. Question is one of the tools for instruction. In classroom, questions are the means of communication between teachers and students. They help teachers in finding out whether the objectives or goals of the lesson are achieved.

Question may be directed to students in order to develop their thinking abilities and get the attention of students who are in attentive in class. For unachukwu (2010) questions is one of the things that arouse the curiosity and mental activity of the learner.

Questions are used by every body (adults and children) in all walks of life to learn about their world and find information to guide their lives. The way one uses poses his questions leads hi m into the type of information he gets. Thus, there are principles of asking questions. The following principles are giving by offorma (1994):

1.i. **State the question.**

ii. Pause while you take a glance on all the students to consider the question, recall an answer and organize the answer for production.

iii. Call on any student to attempt an answer. You need not be too officious as to say ñyou student or girlô etc. Try to be as informal as possible. Use pet names or their first names if possible for example: Chi, Sani, Kemi, Ayo, Ahmed, etc.

iv. Listen to the answer and think about it. Donôt be too hasty as to stop student before he finishes or to give follow up questions.

v. Evaluate the answer, comment and reinforce. Donôt always rush into the evaluation; it could be an opportunity to re-direct the question to other students.

2. **Questions must be asked in a friendly tone**- The tone of the teacher while asking questions can indicate to the students whether your question is meant to help or disgrace. Militant tone connotes violence and this can provoke hostility and stupidity in the pupils. Militant questions threaten students and make them nervous. Once in this state nobody can perform at his best. Tone of questions must be pleasant, natural, conversational and friendly.

3. **Distribute questions evenly**

Avoid any systematic method of distribution. For instance calling names according to rows in the seating arrangement, names in the register or any other fixed order. This indicates to the rest of the students that the question is not meant for them. The benefits of the questions is only for the person whose turn it is to answer. Donôt call names before you ask questions, and donôt restrict the question to only brilliant or the dull students. The same mistake will be made if only the volunteers are called to answer questions. Remember that some introverts may know the correct answer but would not raise up their hands to answer. More-over, the lazy ones will relax since the questions are for those who want to answer.

4. **Distribute questions to respect ability**.

The principle of individual differences tells us that we differ in attributes. We can be identical but not the same, so there is no need forcing a student to wear shoes not of his size. Questions should be distributed according to the ability of the students. Tough or difficult question go to very brilliant students. This is to avoid the personality damaging effect of consistent failure before peer, which can set off other problems like lack of peer acceptance, self-rejection, truancy, aggression and so on. It does not mean that low ability students should never attempt difficult questions. Promting can be used to get them answer difficult questions. When they are successful in getting to correct answer, they gain self respect and peer acceptance that enhance personality development.

5. **Questions must be heard**- Some teachers do not speak out as masters of what they teach. In such a case, the students have to strain their ears. They ask one another, ñDid you hear what he asked? What has he saidò, The teacher should raise his/her voice in such a way that he/she can be heard from the corners of classroom. In a very large class a microphone may be used. If the class is noisy wait for the noise to die down, the attention of the class must be gained before a question is asked. Question can be used to call the attention of inattentive students but unnecessary repetitions should be avoided. If questions are not repeated there will be tendency for the students to pay attention. Questions are repeated only when you are very sure they were not heard.

**6. Adjust the rate of questioning-**

Avoid asking too many questions in such a manner that creates tension. Questions must respect the right of the student. They should not be used to embarrass or disgrace the students for example:

Teacher: What is the capital of Nigeria?
I know you canôt answer the question, block head.
Come on, answer the question. You:
Student: Port-Harcourt.
Teacher: Mm ï Hu!
What did you say?
Another idiot should try, you: etc.

The ancient authoritative teacher with cane in hands could do the above but not the modern teacher. Questions are meant to teach and not to disgrace.

7. **Insist on complete answers.**

Students should be encouraged to improve on their initial responses and the habits that can disrupt discussions should be eliminated. Do not answer your questions. If there is no response modify the question. The answers should not be repeated but if there is need, ask the students to do so. Increase the discussion time used by the student and reduced the discussion time by óteacher talkô this enhances the discussive skill of the student. Inadequate answers should be probed to clear any misconception and highlight the point. Right answers should be commended and the students who give wrong answers should not be rebuked. Wrong answers are indicators of areas of weaknesses and misconceptions. Some students end up their answers with another question. Do not be in a haste to give the answer.

There are many advantages in the use of questioning skill as a method of teaching. Some of these advantages as given by Awoloniyi (1979) are:

1. Teacher can increase his own knowledge by using the technique.
2. It is used to test the extent and depth of pupils knowledge.
3. It helps to discover areas of misunderstanding, confusion and doubt which the teacher clears.

Furthermore skills are applied when asking questions. Ibegbu (2011) stated that questioning skills refers to the ability of a teacher to ask questions to his students expertly and well in order to elicit correct response from them. Ibegbu went further to sight Unachukwu (2010) who gave the following questioning skills which are similar to the principles of Offorma:

1. The teacher should ask group oriented questions instead o directing a question to one person. Ask your question, pause briefly, and then call upon a student. This is because group oriented questions have the advantage of keeping students alert and thinking and broadening participation by inviting several students to show their readiness to answer

However, questions may be directed to individual students in order to:

a. Get attention of student who is inattentive

b Call upon a student who has given a previous answer, in order to modify, expand, or correct his answer

c. Draw a shy student who is easily upset or started into the discussion. For example, ñDo you agree with Emekaôs explanation of é é é é .?

2. The teacher must avoid ñchorus typeò convergent questions which encourage the class to respond en mass. For example, ñwho is the governor of Anambra State? ñ The calling out of answers may weaken class discipline.

3. Questions should be carefully thought out, and the language adjusted to the level of the students. It should be short and direct to the point.

4. Volunteers and non-volunteers may be left out (a) the student has a severe speech or language handicap, and (b) If the student has been absent for a prolonged period and does not possess the needed background to the information sought.

5. Questions should not be repeated. The aim of addressing questions to the entire class is to encourage continued attention by the whole group. Repeating questions destroys the expected value. The teacher should speak clearly enough to be heard in all parts of the classroom. If certain students frequently ask for repetition of questions, the teacher should ascertain if they are hard of hearing. In such cases the teacher should change the studentôs seat and later recommend them for medical treatment.

6. There should be a pause after each question. This is to allow students time to think of the answer. One student should be called up by name to answer the question. The teacher listens to the answer. If the answer is correct then the child should be rewarded with a verbal comment such as ñgoodò ñexcellentò e.t.c this encourages and reinforces the students learning. In correct answers should be handled diplomatically. The teacher should accept the students answer, and then redirect the direction of thinking. For Example, ñthat is good thinking Bob, but you did not hit the nail on the head who can help clarify Bob\s answerò. If there is no response to a question the teacher should rephrase the question on a simpler level. If this fails, then he should give more information and then ask the question again.

It is necessary for teachers to develop good questioning skill in teaching their subjects. Especially questioning skill on microteaching.

Microteaching is a teaching method where the teacher teaches small group of students, for a short period. It is designed for the training of teachers. It is manly used by teacher trainee in acquiring teaching skills. Microteaching is where the teacher trainee teachers a small group of students for a short period of time laying emphasis to one or two teaching skill.

Microteaching involves a set of activities which teacher trainee undergoes to acquire teaching skills. These activities are referred to as the microteaching processes. These activities are in sequences of steps. The steps or processes as given at http/enwikipedia. Org/wiki/microteaching are as follows:-

1. Modeling
2. Planning teaching
3. Teach-Re-card stage
4. Play back critique stage (feedback)
5. Re-planning to re-teach
6. Re-teach
7. Re-observation of tea

It is possible then to use questioning skill on microteaching in teaching secondary school computer because of the increased quest for science and technology in the world.

Actually, computer is a vital machine in the life of government and people in general. It helps in not only receiving information but also in retrieving information at a high speed. For Akudolu in Okwo and Ike (1996) computer is an electronic machine that is capable of receiving, storing, manipulating and retrieving data very fast. Computer has in built programmes.

Akudolu (1997) defines computer as an electronic device with in built programs (list of instructions) which enable it to receive, store, process and produce large amount of data for execution of wide range of arithmetic amount and logical operation.

A computer is programmed to perform many basic operations. Four basic operations of computer as given by Ibegbu (2010) are as follows:-

1. To receive information and give feed back (input and output)
2. To perform different types of arithmetic and logic operations (date processing)
3. To sort data and compare the relationship between different values (control)
4. To store and retrieve data.

Computers perform many operations that are similar to brain.Travers (1977) and Ibegbu (2010) maintained that computers perform operations that resemble thinking activities. Ibegbu went further to say that computers are like giant brain and their storage units are called memory units.

Importance of computer for self employment and global information makes it possible to look for ways of teaching it to students so as to improve instruction and achievement in the subject, Hence the use of questioning skill on microteaching in teaching it.

Any method of teaching computer like discussion, lecture or problem- solving without use of questioning skill on microteaching in this study is regarded as traditional method. The traditional method of teaching computer for instance lecture method makes them to be passive while discussion method may generate unwillingness for students to cooperate with others especially on the topic of their discussion. With these problems; one started looking for ways of more improvement in interesting and achievement of students in computer. This leads to the use of questioning skill on micro teaching in teaching secondary school computer so as to improve Instruction and enhance achievement in the subject.

When a task is accomplished successfully by exertion or skill or practice, it becomes achievement. Achievement then refers to the amount of knowledge or skill which students possess in a subject

According to Nwana (1982) ócachievement is the amount of knowledge or skill possessed by the studentsô. In secondary school computer when students are able to engage in booting, identification of features of computer, classification of computer and engage in some programmes like Microsoft word, Excel, Pagemaker and the elementary part of Corel Draw we say that students are making some achievement in the subject. .

The main aim of this study is to find out the effect of questioning skill on microteaching on students achievement in secondary school computer in onitsha Education Zone. Specifically, the aims of the study are:

1. Determing the achievement of secondary school students taught computer using questioning skills on microteaching and those taught with conventional method.
2. Finding out the gender effect of questioning skill on micro-teaching.
3. Finding out the achievement of junior secondary school one (JSS1) and senior secondary school one (SSSI) students taught computer using questioning skill on microteaching.

**RESEARCH QUESTION**

Three research questions were posed for the study. They are:

1. What are the mean achievement scores of students in secondary school computer using question skill on microteaching and those taught by conventional method?
2. What are the mean achievement scores of male and female students in secondary school taught computer using questioning skill on microteaching?
3. What are the mean achievement scores of JSSI and SSSI students taught computer using questioning skill on microteaching.

**RESEARCH HYPOTHESIS**

The following null hypotheses were tested at .05 level of significance.

1. There is no significant difference in the mean achievement scores of students in secondary school taught computer using questioning skill on microteaching and those taught using conventional method.
2. There is no significant difference in the mean achievement scores of male and female students in secondary school taught computer using questioning skill on microteaching.

3. There is no significant difference in the mean achievement scores of JSSI and SSSI students taught computer using questioning skill on microteaching.

**RESEARCH METHOD**

It was a quasi experimental study in which a population of fifty (50) secondary school students randomly selected from Onitsha Education Zone of Anambra State was used for the study. Achievement test on the subject was used for data collection. Mean was used to answer the research questions while t-test was used to test the hypothese

Table 1: Post Experimental Versus Post Control

| Variables | No | Mean | Calt.T | Calt.T | Decision |
|---|---|---|---|---|---|
| Experimental Group | 10 | 69 | 12.367 | 1.960 | rejected |
| Control group | 30 | 40 | 12.367 | 1.960 | rejected |

Table 2: Post Malesô Experimental Versus Post Femalesô Experimental

| Variables | No | Mean | Calt.T | Calt.T | Decision |
|---|---|---|---|---|---|
| Experimental Group (Males) | 4 | 70 | 0.847 | 2.00 | accepted |
| Experimental Group (Females) | 6 | 69 | 0.847 | 2.00 | accepted |

Table 3: Post JSS I Experimental Versus Post SSS I Experimental

| Variables | No | Mean | Calt.T | Calt.T | Decision |
|---|---|---|---|---|---|
| Experimental Group (JSS I) | 10 | 68 | 0.847 | 2.00 | accepted |
| Control group (SSS I) | 10 | 70 | 0.847 | 2.00 | accepted |

Table 1 showed that the mean achievement scores of students in secondary school taught computer using questioning skill on micro-teaching is 69 which is higher than the mean achievement scores of those taught using conventional method which is 40. The calculated t-test is greater than the critical t-test. Thus there is significant differences in the mean achievement scores of students in secondary school taught computer using questioning skill on microteaching and those taught by conventional method.

From table 2, the mean achievement scores of male students is 70 and that of female students is 69. There is no much difference between their mean achievement scores. The calculated t-test is 0.847 which is less than the critical t-test which is 2.00. Hence, there is no significant difference in the mean achievement scores of male and female students in secondary school taught computer using questioning skill on microteaching.

Furthermore, table 3 showed that the mean achievement scores of JSS I students is 68 and that of SSS I is 70. The difference between the two is only 1. The calculated t- test is 0.847 which is less than the critical t-test which is 2.00. There is no significant difference in the mean achievement scores of JSS I and SSS I students taught computer using questioning skill on microteaching.

## CONCLUSION

Base on the findings, questioning skill on micro-teaching is superior to conventional method. This is because students taught by questioning skill on microteaching achieved higher than those taught by conventional method. Both male and female students taught secondary school computer by questioning skill on microteaching achieved highly so it is good on gender. In addition, JSSI and SSSI students taught computer using questioning skill on micro-teaching achieved highly. This means that it is good on both junior and senior students.

## RECOMMENDATIONS.

1. Questioning skill on microteaching should be used by secondary school computer teachers in teaching.
2. Questioning skill on microteaching should be used in teaching male and female students secondary school computer.
3. It should also be used in teaching both junior and senior students.

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