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## STUDENTS' PERCEPTION ON TEACHERS' COMPUTER LITERACY SKILLS USED IN TEACHING IN ANAMBRA STATE

By

**Dr. C. J Enemu**

Chukwuemeka Odumegwu Ojukwu University  
Science Education  
Telephone: 08063310602

Corresponding E-mail: [cj.enemu@coou.edu.ng](mailto:cj.enemu@coou.edu.ng)

### Abstract

This study was carried out to ascertain Students Perception on Teachers Computer Literacy Skills used in teaching in Anambra State. Design of the study was a descriptive survey. The total population of the study comprises of one thousand five (1500) students and three hundred 300 teachers in the seven government secondary school Nigeria. Accidental sampling technique was employed in selecting students and teachers, which yield a total sample size of 120 for teachers and 250 for students. Two research questions guided the study The instrument for data collection was structured questionnaire titled Computer Literacy Skills Used Questionnaire (CLSUQ) which were validated by three experts all from Nnamdi Azikiwe University Awka. The reliability of the instruments was established using Kuder Richardson- 21 for CLSAQ and Cronbach alpha technique for CLSUQ to test for internal consistency of the items which yielded reliability indices of 0.78 and 0.82 respectively. Data collected were analyzed using mean, standard deviation. The findings of the study reveal among others that, Microsoft word and Internet operation were the used skills by teachers in Secondary Schools Based on the findings of the study, it was recommended among others that Federal and State colleges of education lecturers should constantly update their skill acquisition in computer for teaching and research through constant practices, conferences, seminars and workshops.



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## EXECUTIVE SUMMARY

In a developing country like Nigeria, computers are slowly but steadily, creeping into the fabrics of business, industries, and institutions of learning. As a result of this, it has become necessary that the future should be prepared for it. Computer technology has been found to be the fastest among other electronic equipment, hence the introduction of computer in Nigerian school system is a paramount. According to United Nations Educational, Scientific and Cultural Organization (UNESCO, 2014), in developing country like Nigeria, innovative solutions such as those offered by computer technology can go a long way in bridging the gap of computer illiteracy in education. According to Jegede and Owolabi (2014), use of computer by teachers is improperly handled in south east Colleges of Education. From other works reviewed it shows that lecturers don't make use of the aforementioned computer literacy skills, they do not consider use of computers as part of their normal activities. However, computer use and its facilities in the classroom settings is being handled by lecturers, they are the personnel to impact the knowledge to students

The key fundamental areas of computer literacy skills needed by secondary school teachers for effective performance are the computer literacy skills such as Microsoft word operation, Internet Operation, Microsoft power point and Microsoft excel. These key areas were investigated by the researcher to establish the college of education lecturer's level of utilization of such skills. This study therefore proposes to explore Perception of students on lecturers computer literacy skills Used in teaching and learning in Secondary schools in Anambra State.

## INTRODUCTION

Computer technology has effected all aspect of life it is a catalyst to innovation development, effective and efficient management in all spheres of human endeavours are competently handled by computers (Mbam, 2012). Computers are being used in wide range of operations like multi media for video and music, producing typed document, saving for future use, presentation of data, telephone lines, for communications and scanner for hard document duplication.

One can only use computer and computer gadgets when he or she is computer literate. Literacy is the ability to read and write one's own name and further for knowledge and interest, write coherently, and think critically about the written word. According to Katane and Selvi (2009), literacy is a set of knowledge, and experience necessary for future which manifests in activities.

Over the years, Government has repeatedly organized computer training for lecturers in colleges of education in south east which was sponsored by Digital Bridge Institute. DBI programme were mainly organized for lecturers in both federal and state Colleges of Education. These lecturers benefit from this training every year in computer literacy and skill acquisitions, yet it seems the impact of this programmes are yet to be felt. Teachers in secondary school are expected to use their knowledge of computing skills in teaching. Computer literacy skills and usage is generally left behind since during lockdown, education system were totally shut down in the whole world in the time of Covid 19 pandemic, in Anambra State most schools were pressurized by the school managements to use e-learning like Google class room, whatsApp, and zoom for teaching and learning in order to meet up with the academic session. It appears that most of the teachers find it very difficult to use computer system, Google class room, zoom and other e-learning platform for their students. This prompted the Government of Anambra State to start teaching on air programme for all the secondary school students and pupils in the state. The illiteracy aspect in computer operation for most teachers in Anambra state motivated the researcher to find out whether teachers in secondary schools in south east Nigeria utilize computer skills and the extent they use them in teaching.

### **Problem statement**

Teachers in secondary schools have phobia in operation of computer system; most secondary schools laboratories are not well equipped, and most of them during employment were not tested for computer literacy. That is why they choose old method of teaching which is teacher-centred (traditional) method of teaching. They also find it difficult to cope with the technology age probably because they have acclimatized with the copying of notes on the board or dictating the notes for the students. Being a computer literate is the basic necessity for teachers to properly deliver lessons in different field of specialization, therefore computer literacy skill is a must for all teachers in secondary schools Despite various initiatives and programmes by the government to incorporate computer literacy skill in education, not much research had been done to evaluate to evaluate if computer literacy skills acquired and used by lecturers is influenced by school type, and gender. This study filled the gap of lack of current information pertaining to the computer literacy skills use by teachers in Teaching in south east Secondary Schools, Nigeria

### **Objective of Studies**

The objective of the study was to investigate perception of students on teachers' computer literacy skills used in teaching in Anambra State . Specifically, the study sought to investigate;

1. Teachers ' usage of computer literacy skills (Microsoft word, Internet operation, Power point and Excel) for teaching in Secondary Schools,
2. Students Perception on teachers usage of computer literacy skills (Microsoft word, Internet operation, Microsoft powerpoint and Microsoft Excel in teaching in Secondary Schools,

### **Research question 4**

1. What are the mean scores of teachers on the usage of computer literacy skills (Microsoft word, Internet operation, Power point and Excel) for teaching in Secondary Schools.
2. What are student's Perception on teachers usage of computer literacy skills (Microsoft word, Internet operation, Microsoft powerpoint and Microsoft Excel in teaching Secondary Schools,

### **Conceptual Review**

#### **Meaning of Computer**

Mbam (2012) defined computer as a tool for performing task fast, conveniently, effectively and more accurately. Computer is a sharp method adopted to help the common sense of man, a catalyst to innovation development, effective and efficient management in all spheres of human endeavours are competently handled by computers Mbam added. Computers are being used in wide range of operations like multi media for video and music, producing typed document, saving for future use, presentation of data, telephone lines, for communications and scanner for hard document duplication.

**Usage:** while usage is the act of employing or putting into service.  
(<https://www.dictionary.com/browse/use>).

## **Computer Literacy skills**

During the last decades, the government and agencies have invested heavily in the integration of computer in education and information and communication technology (ICT) towards advancing the educational sector. The use of computer has imparted positively in education (teaching methodologies, research and development, information technologies) and other related areas. Computer literacy according to Terry in Nwafor (2015) is the knowledge and ability to efficiently use computer. It can also refer to the comfort level someone can use the computer and its application in solving specific problem.

Computer literacy it involves being able to operate the computer efficiently without an aid and manipulate the software associated with it (Terry in Nwafor (2015). Improving education quality is a priority for most developing nations such that policy makers agree that such improvements could lead to structural shifts in productivity and boost long In the early 80s there was much hand-wringing among teachers and education policy-makers regarding how to teach computer literacy given that many teachers did not having sufficient training, and “micro-computers” were prohibitively expensive. Nonetheless, computer literacy was swiftly placed on the majority of school curricula. As the digital dawn, dawned, and the internet ballooned (or blossomed depending on your point of view), great strides were made in the development, understanding and application of education technology and technology education.

## **Computer literacy skills of Teachers**

Computer literacy skills of Teachers is the ability of teachers to use computer system appropriately to access, manage, integrate and evaluate information, develop new understanding, and communicate with others in order to participate effectively in the society Ministerial Council on Education, Employment, Development and Youth Affairs (MCEECDYA, 2008). However, the presence of technology alone will not stimulate significant changes in schools without computer literacy skills of who are right personnel expected to educate and assist the students. Computer literacy has the potential to transform teaching and learning processes (Partnership for measuring ICT for Development, 2010). Teachers do not only need to have literacy skills in using computer but also need to be literate and skillful in the pedagogical use of computer (American Association of Colleges for Teacher Education, AACTE, 2008; Voogt, 2008).

Terry in Nwafor (2015) opined that Computer Literacy skills must be embedded in teachers practice since teachers literacy skill is connected to student literacy skill and students literacy skill can be an indicator of teachers literacy skill. The nature of teaching and learning implies on going challenges and the need for a process of career-long development and learning. Teachers need to have the necessary resources that will boost their literacy skill in computer usage not just providing them with computer at their desk but also to have their personal one.

## **Theoretical Framework**

### **2.2.2 Technological Pedagogical Content Knowledge Theory**

Mishra and Koehler developed the Technological Pedagogical Content Knowledge (TPACK) in 2006. Mishra and Koehler posit that a teacher depends on three domains of knowledge for effective integration of ICT into teaching and learning. The domains are content knowledge , pedagogical knowledge and technological knowledge. Mishra and koehler (2006) further asserted that a teacher needs to know not just the subject matter he/ she teaches but also the manner in which the subject matter can be changed by the application of technology. They added that TPK is

knowledge of the existence, components and capabilities of various technologies as they are used in teaching and learning settings and conversely, knowing how teaching might change as the result of using particular technology.

TPACK theory is relevant to the present study as it identifies the technology knowledge as good knowledge of operating system and computer hardware, the ability to use standard sets of software tools (e.g. word processors, spreadsheets, browsers, e-mail) and how to install and remove peripheral devices, install and remove programmes, create and archive documents among others

## **Empirical Studies**

### **Literature Review**

Previous studies carried out by school and authors in the areas of usage of computer skills by teachers will be review under the following sub –headings

A study carried out by Hungwa, Sandra, and Nicholas (2015). Information and Communication Technology skills of staff of tertiary institutions in the statutory Institutions in Benue State, Nigeria. The purpose of the study was to examine the ICT skills of staff of university libraries and that of polytechnics/monotechnics and colleges of education in Benue state. The study identified the ICT facilities available in these institutions, compared the differences in ICT skills level between staff of universities and the other and variation in the training methods used by the staff of these institutions (universities and others) for the acquisition of the skills. Descriptive survey research design was adopted for the study. The entire population of 248 library staff was surveyed with the use of a structured questionnaire by the researcher through the help of research assistants within the period of two weeks. Frequencies, mean (  $\bar{X}$  ) scores and ranking as well as percentages were used to analyse the data in answer to the research questions.

Results indicate very sharp differences in the ICT facilities available, the skills acquired as well as the training facilities used for the acquisition of the skills in favour of universities. While university libraries have a good number of the facilities and the staff possess most of the skills listed, staff of polytechnics/monotechnic and colleges of education show a paucity of these facilities and skills. While the staff of university libraries enjoys library sponsorship for the acquisition of some ICT skills in addition to personal efforts, staff of her institutions' libraries acquires their skills through self-sponsored efforts only. The study recommended the purchase of more ICT facilities and involvement in skills training by the authorities of polytechnics and colleges of education. Staff of these institutions are also expected to purchase basic ICT facilities on personal level and engage in self training among others. The reviewed study focused of polytechnic staff ICT skills while the present study based of computer literacy skills while the current study was on Secondary school students, both studies were carried out in Nigeria.

Enemuo (2017) assessed the level of Computer Science competencies possessed by university computer education students in Anambra state. The study was descriptive survey research design. competence that were assessed are Microsoft word, Electronic Spreadsheet, Internet operation and basic computer maintenances. Five research questions guided the study. The population was 320 students university computer education, 400level (final year) students from all the Universities in Anambra State in 2016/2017 session were used for the study. The entire population was used as sample because of its small size. therefore, no sampling for the study The instrument for data collection was observational schedule for computer competencies possessed by university computer education students, which consisted of 30 items. The laboratory technologists or the research assistant grouped the students into batches of 10 students per batch, depending on the number of students to be

observed in the selected schools. Each group worked as a batch with a time frame of between an hour to thirty minutes. Thereafter, rated the students individually and recorded their level of competencies in word processing, electronic spreadsheet, internet operation and basic computer maintenance. Scores was assigned to students according to their performance in each of the task. Any Student without difficulty in carrying out a particular task was rated Very High which is 4 points. Those who could perform a particular task without much difficulty were rated High which is 3 points, those who exhibited difficulty in performing a particular task were rated low which is 2 point, while those who found it very difficulty to perform a task given were rated very low which is 1 point. The instrument was validated by three experts and the reliability of the instrument was ensured using Kendal tal coefficient of concordance, which yielded reliability coefficient of 0.60, 0.86, 0.93 and 0.80. respectively for different clusters, the reliability index for the clusters is 0.80. For the four clusters mean and standard deviation and t-test were used to analyze the data that were obtained from the study.

The findings showed that university computer education students need more knowledge in Microsoft word operation, electronic spread sheet competencies, hereby require less or no knowledge in internet operation and basic computer maintenance competencies. The findings also revealed that there is no significant difference between the mean competence scores of male and female university computer education students in areas of word processing, electronic spread sheet, internet operation and basic computer maintenance competencies. Based on the findings, it was recommended among others, that university computer education students should be trained and encouraged to acquire different computer competencies necessary for their academic pursuit. The present study focused on perception of students on teachers in secondary schools usage of Computer literacy skills which have students and teachers questionnaire whereas the reviewed study does not focus on secondary school students rather University students.

### **Summary of Review of Related Literature.**

The review showed that lecturers are trained personnel to teach the students on computer literacy. Under conceptual framework, meaning of computer, usage, computer literacy skills and computer literacy skills of lecturers were reviewed. Under Theoretical frame work ,Technology Pedagogical Content Knowledge theory by Mishra and Koehler was anchored by the study which states that teachers need to teach their students a particular subjects effectively with the use of technology. Technology Pedagogical Content Knowledge have three domains, they are content knowledge, pedagogical knowledge and technological knowledge. However, studies reviewed under empirical studies focused on computer competencies of lecturers in state colleges of Education and acquisition and utilization of information and communication technology in secondary schools in rivers state. Most of the reviewed studies did not cover some areas in Microsoft word, Microsoft power point , Internet and Microsoft Excel. All the reviewed studies was not carried out in south east Nigeria and also was not focused on students' opinion on lecturers computer literacy skills used in teaching in the various schools and institutions in south east. Therefore this study will fill the gap in the research study carried out both in Nigeria and outside Nigeria on the perception of students' on teacher's computer literacy skills usage in Teaching in south east Secondary Schools, Nigeria.

### **Methodology**

The design adopted for this research was descriptive survey method which aims at assessing the perception of students on teachers computer literacy skills used in Teaching in south east Secondary Schools, Nigeria. According to Nworgu (2015) a descriptive survey research are those studies

which aim at collecting data and describing in a systematic manner the characteristics features or facts about a given population. The study was conducted using questionnaire designed to be descriptive. The total population of the study comprises of five thousand 1500 students and three hundred 300 teachers in the seven government secondary school Nigeria. Accidental sampling technique was employed in selecting students and teachers, which yield a total sample size of 120 for teachers and 250 for students. Computer literacy skills Used Questionnaire was designed (CLSUQ) which contain 20 items on computer literacy skills used by teachers and students. Copies of the questionnaire were given to the teachers and students in their various schools. They were asked to complete the questionnaire using a five point scale from; Always, Often, Occasionally, Rarely and Never. The data was analyzed using mean and standard deviation.

### Research question 1

What are the mean scores on the usage of computer literacy skills by teachers in (Microsoft word, Internet operation, Power point and Excel) in Secondary School

**Table 1:** Mean and standard deviation sores in computer literacy skills used by teachers in secondary

**N = 120**

S/N	ITEMS	$\bar{X}$	SD	REMARK
<b>MICROSOFT WORD</b>				
1	I use word processing to prepare students assessment record	3.14	0.84	Often
2	I use Microsoft word to give students assignment	3.78	0.72	Often
3	I assess students document on CD or flash drive using word processing	5.05	0.75	Often
4	I use word processing to type my students examination question	3.01	0.88	Often
5	I use word to prepare my note of lessons	3.11	0.85	Often
	<b>Cluster Mean</b>	<b>3.04</b>	<b>0.78</b>	<b>Often</b>
<b>INTERNET OPERTAION</b>				
6	I use Internet to send information via e-mails to the students	3.74	0.71	Often
7	I give students assignment to search on internet.	3.09	0.76	Often
8	I use Google class room with my students	3.13	0.73	Often
9	I use zoom to interact with my students	2.88	1.34	Rarely
10	I use internet to upload students results	2.14	1.09	Rarely
	<b>Cluster mean</b>	<b>2.64</b>	<b>0.85</b>	<b>Rarely</b>
<b>MICROSOFT POWER POINT</b>				

11	I use power point to present Animation in teaching	2.14	1.11	Rarely
12	I use power point to print out slides on note of lessons	2.30	1.06	Rarely
13	I use power point slide to present a note of lesson to the students	2.19	1.08	Rarely
14	I use Microsoft word .in place of microsoft powerpoint to display a slide	2.21	1.09	Rarely
15	I use more than two slides in teaching	2.27	1.06	Rarely
<b>Cluster mean</b>		<b>2.20</b>	<b>1.06</b>	<b>Rarely</b>

**ITEMS**

$\bar{X}$

**SD**

**REMARK**

**MICROSOFT EXCEL**

16	I use Excel in computing students grade	1.21	1.01	Rarely
17	I use excel to sort figures in ascending order	2.15	1.06	Rarely
18	I use excel to create graph	2..08	1.05	Rarely
19	I calculate numerical data using excel	2.05	1.02	Rarely
20	I use excel to prepare lecture note	2.07	1.20	Rarely
<b>Cluster mean</b>		<b>2.02</b>	<b>1.07</b>	<b>Rarely</b>
<b>Grand mean</b>		<b>2.73</b>	<b>0.96</b>	

**Research question 2:**

What are the mean Score of Students perception on Computer literacy skills (Microsoft word, Internet Operation, Power point and Microsoft Excel.) used by their teachers in teaching.

**TABLE 2:** Mean and standard deviation scores of students response on teachers usage of computer literacy skills in teaching.  
N= 250

S/N0	ITEMS	$\bar{X}$	SD	REMARK
999				
<b>MICFOSOFT WORD</b>				
1	My teacher uses word processing to prepare students assessment record	3.20	0.68	Often
2	My teacher uses Microsoft word to give students assignment	4.43	0.74	Often
3	My teacher assesses students document on CD or flash drive using word processing	4.41	0.61	Often
4	My teacher uses word processing to type my students examination question	4.15	0.73	Often
5	My lecturers uses Microsoft word to prepare my note of lessons	4.22	0.78	Often



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	<b>Cluster mean</b>	<b>4.2</b>	<b>0.75</b>	<b>Often</b>
<b>INTERNET OPERTAION</b>				
6	My teacher uses Internet to send information via e-mails to the students	4.05	0.78	Often
7	My teacher give students assignment to search on internet.	4.02	0.98	Often
8	My teacher uses Google class room with my students	4.11	0.85	Often
9	My teacher uses zoom to interact with my students	3.03	0.72	Often
10	My teacher uses internet to upload students results	3.00	0.81	Often
	<b>Cluster mean=</b>	<b>4.06</b>	<b>0.88</b>	
<b>ITEMS</b>				
	<b>MICROSOFT POWER POINT</b>	<b><math>\bar{X}</math></b>	<b>SD</b>	<b>REMARK</b>
11	My teacher uses power point to present Animation in teaching	4.54	0.78	Often
12	My teacher uses power point to print out note of lessons in slides	2.43	1.02	Rarely
13	My teacher uses power point to present a note of lesson to the students	2.36	1.04	Rarely
14	My teacher can display slides without Microsoft powerpoint Softwares.	4.41	1.23	Occasionally
15	My teacher can create more than two slides in Microsoft Powerpoint.	2.35	1.05	Rarely
	<b>Cluster mean =</b>	<b>2.66</b>	<b>1.03</b>	<b>103</b>
<b>MICROSOFT EXCEL</b>				
16	My teacher uses Excel in computing students grade	1.05	1.09	Rarely
17	My teacher uses excel to teach students how to sort figures in ascending order	2.64	1.01	Occasionally
18	My teacher uses excel to create graph	2.78	1.04	Occasionally
19	My teacher calculates numerical data using excel	3.50	1.12	Occasionally
20	My teacher gives assignment on excel	2.81	1.05	Occasionally
	<b>Cluster mean</b>	<b>2.65</b>	<b>1.09</b>	<b>Rarely</b>
	<b>Grand Mean=</b>	<b>2.89</b>	<b>0.91</b>	<b>Occasionally</b>

## Result of findings

The findings of the study reveal among others that, Microsoft word and Internet operation were the used skills by teachers in Secondary Schools . The researcher expects that the study will be of benefit to the teachers as they will know their level of computer literacy skills usage in teaching. This will afford the teachers to sit up and embrace the use of technology in teaching and have their personal laptop for constant practicing with computer for an improved knowledge of their teaching job. The study will also reveals to students the areas of literacy and level of knowledge on teachers' computer literacy skills usage .

## Recommendations

Based on the findings of the study, it was recommended among others that State and Federal Government should constantly update their skill acquisition in computer for teaching through constant practices, conferences, seminars and workshops.

Policy makers in the ministries and Curriculum Planners should make provision of computers and constant usage of computer system and computer facilities among Secondary schools teachers.

## Conclusion

Based on the findings of this study, the researcher concluded that computer literacy skills are fairly utilized by Secondary school teachers. The most used skills by teachers were Microsoft word and internet operation in teaching and research. Microsoft power point and excel were not utilized by teachers in teaching.

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