



Computer competences possessed by English Language teachers for effective instructional delivery in public secondary schools in Ebonyi State, Nigeria

Udeh Judit Chinedu¹, Ubi Veronica¹, Okpube Nnaemeka Michael²

¹ Ebonyi State University Staff Secondary School Abakaliki Ebonyi State, Nigeria

² Ebonyi State University, Abakaliki Ebonyi State, Nigeria

Abstract

This study, investigated Computer Competence possessed by English Language Teachers for Effective Instructional Delivery in Senior Secondary Schools in Ebonyi State. Five research questions guided the study. The study used descriptive survey research design and observational schedule with reliability coefficient of 0.86 titled "Computer Competence for Instructional Effectiveness among English Language Teachers' in Senior Secondary Schools (CCFIEELTSSS) for data collection. Data collected were analyzed using mean and standard deviation to answer the research questions. Findings of the study revealed that: English language teachers in public secondary schools in Ebonyi State possess computer competences in word processing but not in spreadsheet, electronic presentation, data processing and ICT for instructional effectiveness. Based on the findings of the study, it was recommended among others that the state government and relevant education stakeholders should ensure that functional computer laboratories are stationed in every public secondary school in the State. Equally, principals of secondary schools in the state should ensure that every teacher including English language teachers who are not computer literate are encouraged to acquire such knowledge and competences through seminars and support for in-service training.

Keywords: English Language, teachers, computer competences, instructional effectiveness

Introduction

English language as a second language in Nigeria is fundamental to day to day running of activities in the country because it is the official language approved statutorily for her citizens. However, it has been a serious concern for scholars in the field of English language in Nigeria because of students continued poor performance in terminal examinations such as in the West African Senior School Certificate Examination (WASSCE) and the National Examination Council (NECO). It is a requisite for every student to pass English language in order to attain academic excellence and further his/her education. The importance of English language is so paramount, even at the undergraduate level because all students must pass courses such as: use of English I and use of English II or introduction to English language as part of the courses offered as general studies. Furthermore, English language as a subject of study at the primary and secondary school education levels focuses essentially on the following components: speech, reading comprehension, grammar, summary and composition writing which are compulsory at all levels. Performance of students in each of these aspects is used in determining students' success in the language.

There has been a high rate of students' low performance in English language which might be due to several factors ranging from teachers' poor skills and competence to effectively handling the subject to the use of conventional methods (i.e. lecture, discussion, among others) of teaching. The situation has become worrisome on a regular basis, and thus requires urgent attention (Okueso, 2016; Ogunmade, 2015). Every effort has been explored and like other core subjects, priority attention has been given to this compulsory subject. Osikomaiya (2013) and Ogundele and Etejere (2013) [7, 20], noted that students continue to perform very poor in the subject at both promotional and terminal examination to the great displeasure of parents, teachers,

examiners and the policy makers in the sector. In 2021 for instance, 33.37% out of 648, 425 students passed with credit in English language (WAEC, 2021). In 2022, 37.53% out of 713, 246 candidates that sat for WAEC obtained credit pass in English language (WAEC, 2022). According to the WAEC chief examiner's report for the years 2023^[35], students' achievement in the subject is still below 40% (WAEC, 2023).

The reasons for the continued poor performance of the students in English language varies but Okueso (2016) marked teachers' inability to integrate technology in teaching which is a proven approach to enhancing students' academic achievement as one of the major reasons for students' poor achievement in the subject. Could it be that the teachers are not competent to use computer facilities in teaching the subject so as to improve students understanding cum performance? It is this question that prompted this research aimed at investigating the computer competence for instructional effectiveness among English language teachers in secondary schools.

Introduction of a new Secondary School Education Curriculum (SSEC) by the Federal Government of Nigeria in 2011^[28] made computer education a compulsory subject to secondary school students. Graduates of the new SSEC are expected to possess relevant information and communication technology skills and become well prepared to live and contribute meaningfully in a globalised computer society. The expectation is that computer education would make the students computer literate in line with the revolution permeating the globe (Ogundele & Etejere, 2013) [20]. Computer is the most important innovation of the 21st century and has dramatically and irrevocably changed the way we live, practise and procedures of nearly all forms of endeavour within business, education and governance (Adomi & Kpangban, 2010) [4]. The educational sector is not left out of the computer revolution spreading in every

facet of human existence. The importance of computer education to teachers and students cannot be over-emphasised especially now that the world has been reduced to a global village by technologies.

Furthermore, teachers at all levels of education play a decisive role in pivoting the growth and the direction of education (Gaji, 2014) ^[12]. The author also opined that teachers represent the most important element in the educational machine, and that they are highly instrumental to the success of any educational programme. This is because, apart from being at the implementation level of any educational policy, the realization of these programmes also depends greatly on teachers' teaching ability, subject knowledge, dedication and commitment to their work. Similarly, James (2016) ^[13], believes that teachers are the fulcrum around which a successful education system revolves.

For Nigeria to realize accelerated development in this era of globalization in our senior secondary school, there's a great need to employ teachers (English Language teachers inclusive) who will act as catalysts for change in planning, preparing and delivering lessons to all students in a more comprehensive way with the use of visual/audio means to improve learning. As a facilitator of knowledge, skills and values to the society, teachers are usually considered as a nations' greatest asset. Ali (2012) ^[2], observes that the senior secondary school level is the stage at which individual subjects such as English Language, Mathematics, Chemistry, Physics, Biology, Computer, Literature in English and Agriculture are to be thoroughly taught the students in readiness for future occupations in various fields of human endeavour. Hence, qualified and highly computer literate teachers who are well aware of their global demands for teaching with a view to engendering societal norms and values in learners are highly required. Due to the nature of the subject, they teach, English Language teachers need to be effectively prepared and equipped in pedagogical content and teaching approaches. This would require professional development, training and re-training, in-service refresher courses and indeed any other programme that could help improve the overall standards of teaching and learning in our schools. Hence, the need for them to embrace computer use in teaching to enhancing students' academic achievement.

Going forward, that teachers therefore, need to recognise the nature of human endeavours and how it relates to teaching if they are to help their students completely understand the content and underlying principles of English Language (Omoifo, 2016). The teachers as a matter of interest need to be aware of national educational policies and goals in order to discharge their teaching activities towards achieving those goals regardless of gender, qualification, quality of school and locations.

An effective teacher according to Okunloye (2015) ^[24], is a person who has been trained pedagogically and acquired with a systematic body of knowledge in specialized teacher training educational institutions. However, this training, the author indicates, must equip the teachers with the needed capacities to efficiently facilitate classroom instructions in every field of education including English Language as a subject or discipline. English Language teachers' qualification, in terms of academic attainment and professional training has a significant impact on their effectiveness, content delivery and thus on the level of

excellence of the overall quality of education in the society – for quality teachers translate to quality teaching, which in turn begets quality students. Thus, there is need for every trainee and practicing teacher to equip themselves with the instructional competences especially in the area of computer use for effectiveness in instructional delivery in a modern standard. This would position them to match classroom instruction using modern computer aids like the projector and computers in enhancing student's interest and academic achievement.

Today, at all levels of education, and in all ages, computer aided instruction and learning is emphasized (Get into Teaching 2016; McCannon & Crews 2010) ^[13, 18]. However, Sithulisiwe and Maphosa (2016) ^[30], noted that though computer education has been propagated in the country for decades, yet the level of application of computers especially in senior secondary school in Nigeria remain elementary while ICT resources remain seriously underutilised in Nigeria and indeed most sub-Saharan African countries. Common applications of computers in Nigeria, as identified by Achuonye (2012) ^[3] include data capturing, paper writing, web surfing, electronic presentation, etc. In schools, the author noted that computers and ICTs are being applied in improving and providing quality delivery in teaching and other instructional activities. Similarly, Ogundele and Etejere (2013) ^[20] advance that in the classroom teaching and learning processes, computers are used mainly by teachers to assist in content delivery in the following significant ways; computer aided instruction (CAI), computer assisted learning (CAL), and e-learning (e.g. storage of information, quick data processing, audio visual aids in teaching, better presentation of information, access to the internet, quick communication between the teacher and the students).

Equally, computer competence is described as the ability to use computers with a range of skills covering levels from elementary use to programming and advanced problem solving (Ogundele and Etejere, 2013) ^[20]. Adeyinka and Mutula (2018) described computer competence as knowing some basic uses of the computer – for example, to open and save a file, to use a word processing program, and to send and receive e-mails, among other uses. Competence in computer use also entails having some sort of level of comfort around computers rather than having some fear or a feeling of foreboding (New York Times, 2016). Similarly, Oladunjoye and Benwari (2014) ^[25] wrote that the concept of computer competence can best be described as the ability to make use of computer system to process documents, analyse data, develop small computer programmes, deliver instructions/presentations, browse internet and install software. Oladunjoye and Benwari (2014) ^[25], perceive computer competence as the amount of computer knowledge required and the length of computer usage. In a similar vein, Loyd and Gessard (2014) ^[17], conceive computer competence skills based on the amount of time spent on the computer, ownership of computer and number of computer related courses taken; while Idowu (2014) ^[14], describes competence in computer use as that which is concerned with computer experience, programming skills and ability to use software.

In this light of the preceding, it becomes imperative to note that modern day teaching cannot remain the same when conducted against the background of changes in ICTs in the outer world. Sithulisiwe and Maphosa (2016) ^[30], equally

noted, that most first world countries have “Computing at School Centres (CAS)” which is basically a centre that houses a group of individuals and professionals who love working with computers, where students can walk in and manipulate computers. Such centres are established by individuals who aim to give children in their community great education through computer technology. Teachers and other professionals are also free to join in order to become acquainted with the computer world (Computing at School, 2016). Membership of such community, according to Achuonye (2012) ^[3], assists teachers to ensure that ICTs are fully utilized in teaching and learning process.

Likewise, the need and importance of attaining high level of computer competence skills amongst teachers (especially in a third world country like Nigeria) against the backdrop of the present rapid changes being witnessed in the field of information and communication technology (ICT) with its resultant effect on almost all facets of human endeavour was underscored by Opie (2013) ^[29]. Thus, the author prescribes that if teachers are expected to fit in and exist within the 21st century information technology (IT) driven world, they must as a matter of urgency, become computer literate and competent in its use.

Another need for a high level of computer literacy skills amongst English language teachers is premised on the fact that students’ success depends to a large extent on the computer abilities and capacities of their teachers for, as stated earlier in this work, there is a strong positive relationship between teacher quality (especially as it relates to subject knowledge and professional competence) and student achievement. Also, achieving a high level of teacher computer competence skills in secondary schools is one of the major objectives of the National Computer Education Policy, 1988^[11]. Thus, going by the dictate of this policy, it is imperative for every teacher to become computer literate and competent in its use.

In addition, one of the main reasons why computer competence skills is imperative for all teachers is the fact that certain educational programmes and activities are now being propagated through the internet (Idowu, 2014) ^[14]. For instance, many schools are now investing heavily on computer and ICT driven educational infrastructure, resources and projects such as e-libraries (digital libraries), e-learning (video and audio tutorials) and e-administration (management and teacher communication through e-mails and social media platforms), to mention but a few. Again, many examination bodies such as the Joint Admissions and Matriculation Board (JAMB), West African Examination Council (WAEC) and the National Examination Council (NECO) are now turning to computer-based tests (CBTs) instead of the conventional pen and paper examinations. Thus, more than ever before, teacher’s computer competence skills have become urgent and unavoidable, as they (teachers) are duty bound to help their students prepare in the best way possible for such external examinations.

Equally, thousands of state-of-the-art tablet computers (that run on the Android Operating System) were distributed to some senior secondary school teachers in Ebonyi State in order to enhance their productivity and also help them prepare their students for external examinations (Atuma, 2017) ^[8]. In the light of this huge educational and technological investment by the government, the overarching need and importance of computer competence skills among teachers (English language teachers inclusive)

in senior secondary school in the state cannot be overemphasised. This study, therefore, aims among other things, to ascertain the computer competence skills for instructional effectiveness among English language teachers in senior secondary schools in Ebonyi State. To guide the enquiry, the following skills will be used to determine the levels of computer competence for instructional effectiveness among English language teachers in senior secondary school in Ebonyi State, they include: (i) Word Processing (ii) Spreadsheet (iii) Electronic Presentation (iv) Data processing (v) Information and Communication Technology (ICT) skills.

Word Processing competence refers to the teachers’ ability to use word processing software to create, format, open, save, edit, report, e-mail and organize professional word documents that are attractive and readable. A word processor is a software program, which provides a Graphical User Interface (GUI) with better capabilities than a text editor does. Some examples of commonly used word processors are – WordPerfect, MS Word and Word Star. The main advantage of a word processor is that it provides a What You See Is What You Get (WYSIWYG) interface, which helps teacher make changes quickly and effortlessly (Ugah & Ukpai, 2009) ^[32].

The new Microsoft Office suite for example, can help the teachers with rich reviews, comments, comparison capabilities, gather and manage feedback from students to produce professional looking document by providing a comprehensive set of tools for creating and formatting document in a new interface. Thus, in this study, any English language teacher who has acquired any sort of training in word processing skills either in a formal or informal setting is said to be competent in computer use (Oladunjoye & Benwari, 2014) ^[25]. This work, therefore, seeks to determine the computer competence in word processing for instructional effectiveness among English language teachers in senior secondary school in Ebonyi State.

Spreadsheet competence skills refer to teachers’ competence level to integrate the use of spreadsheet software into teaching and learning process to make a connection to the real-world application of quantitative analysis. As a teacher in a 21st century, Spreadsheets are invaluable software that allows pertinent aspects of teaching in a convenient and highly methodological way. Some of the most notable of these are compiling grades of students, mastering of charts, tracking survey, storing huge amount of data, analysing statistical data, creating graphics, modelling and planning etc. According to Claudio (2016) it is a software application that provides digital simulation of paper accounting worksheet, that can also have multiple intermingle sheets to display numerical and text data in a graphical form. A worksheet consists of a grid of columns and rows, the columns are labelled with letters like (a,b,c,d,...) the rows are labelled with numbers like (1,2,3,4,...). Intersection of a column and a row is called cell and each cell may contain numeric or text data. Spreadsheet programs are used for business, education, scientific, engineering purposes and one of the most popular spreadsheet programs is Microsoft excel. According to Technokids (2011), teachers’ adequate knowledge of spreadsheet can help the student acquire essential techniques in organizing data in a worksheet and manipulating them using computational strategies to calculate data, generate graphical representation of data,

compare set of data using tables, graphs and models, examines patterns in data using charts and trend line. Invariably, teachers' ability to identify and manipulate any of the following spreadsheet programs: worksheet, workbook, cell value, auto-sum tools etc., in teaching and learning process is said to be competent in computer use. This study will, therefore, determine the spreadsheet competence for instructional effectiveness among English language teachers in senior secondary schools Ebonyi State. Electronic Presentation Skills according to Ogundele and Etejere (2013) ^[20] enables the teachers to use PowerPoint software which is the most popular presentation program to create, acquire, process, store, disseminate vocal, pictorial, textual and numerical information in electronic based systems in more dynamic ways than lecturing and writing on the blackboard. Ugah and Ukpai (2009) ^[32] define PowerPoint as a powerful and ubiquitous presentation software from Microsoft that has facilities to create stunning presentations that supports multimedia and animation. An effective English language teacher is an excellent communicator and therefore thinks about techniques that can be incorporated into teaching and learning to increase spontaneity and interactivity of students. Appropriate knowledge and use of PowerPoint by the teacher enhances instruction and becomes effective tool to present lesson materials in the classroom and encourages student learning activities. It improves learning experience and overall comprehension of students' knowledge on complex ideas. PowerPoint can be used to project visuals which would otherwise be difficult to bring to class; this enhances the students' abilities to retain what they're being taught, especially those who are visual learners. It helps the teacher to deliver automated instructional protocols in laboratory sessions etc., (Allan; 2013) ^[7]. A teacher who is abreast of PowerPoint commands such as create, open, edit, construct charts, add slide, shapes in a presentation etc., can help the students create their own presentations easily. This is a great way to teach them how to use visual aids while working on their presentation and public speaking; these enhance their understanding, provide annotations and highlights, add variety to the work and create lasting impact. This research, therefore, aims to investigate the electronic presentation competence for instructional effectiveness among English language teachers in senior secondary schools in Ebonyi State.

Data processing competence refer to general operations performed on a given set of data to extract the required information in an appropriate form such as diagrams, tables (Obi & Akarahu, 2010). This could be a task requiring a teacher to present an analysis of instructional activities over a period of time in diagrams or tables so as to communicate more meaningful with the appropriate authorities. This study will examine the data processing competence for instructional effectiveness among English language teachers in senior public secondary schools in Ebonyi State.

Information and Communication Technology competence is the use of digital technology, communication tools or networks (e.g. mobile phone, internet, and computer) appropriately to solve information problems in order to function in an information society. This implies that an ICT literate teacher should be able to access, manage, integrate, evaluate, create, organize, research and communicate information purposefully, knowledgeably, technically and ethically to the students at the classroom. Successful

integration of ICT into teaching and learning process can transform pedagogy and has the potential to improve student's motivation, productivity, and knowledge retention, encourage individual learning, critical thinking and data logging etc. A teacher who is proficient in the use of ICT (internet) in teaching and learning can assist the students in learning new English language concepts and attempting problems through research, interpretation of results, presentation and communication of findings in a variety of ways. This research will, therefore, examine the ICT competence skills for instructional effectiveness among English language teachers in senior secondary schools in Ebonyi State.

Research Objectives

1. Determine the Word Processing competences possessed by English language teachers for effective instructional delivery in senior secondary schools in Ebonyi State.
2. Find out the Spreadsheet competences possessed by English language teachers for effective instructional delivery in senior secondary schools in Ebonyi State.
3. Ascertain the Electronic Presentation competences possessed by English language teachers for effective instructional delivery in senior secondary schools in Ebonyi State.
4. Determine the Data processing competences possessed by English language teachers for effective instructional delivery in senior secondary schools in Ebonyi State.
5. Ascertain the ICT competences possessed by English language teachers for effective instructional delivery in senior secondary schools in Ebonyi State.

Literature Review

Review of related literature on the topic of research shows that there is a dearth of empirical studies on teacher computer literacy levels in Nigeria. Rather, this researcher discovered that huge proportion of the available literature – both in Nigeria and the world over – focuses on students' computer literacy. However, the researcher did come across some very important and relevant literature on teachers' computer literacy and utilization of ICTs in learning. Some of them are given below.

Sithulisiwe and Maphosa (2016) ^[30] utilising descriptive survey with questionnaire for data collection and mean in addition to percentage counts for data analysis, examined teachers' computer literacy and utilization of ICTs in teaching and learning at primary school level in Zimbabwe. Findings revealed that there was little utilization of ICTs in the sampled schools. The study concluded that there is low level of ICTs utilization in teaching and learning by teachers. Similarly, Alabi (2015) ^[6] carried out survey research on the level of computer literacy and phobia among private secondary school's principals in Kaduna North Local Government Area of Kaduna State, Nigeria using descriptive survey research design, researcher developed structured questionnaire for data collection, and mean as well as standard deviation for data analysis. The study findings revealed that computer phobia appears to be a psychological indicator for computer utilization because it affects the principals' and vice principals in the utilization of computers for school management and record keeping in schools. Also, it was shown in the study that computer literacy level has a significant relationship on computer phobia level; which then have an impact on computer utilization.

Furthermore, Kptalam and Rodrigues (2013) ^[7] utilised descriptive survey research design with structured questionnaire for data collection, with mean, standard deviation, frequencies and percentages for data analysis, examined the accessibility and utilization of ICT facilities among secondary school teachers in Kenya. They found among others that the use of ICTs and its integration in teaching and learning in secondary schools is getting more widespread and increasingly used among teachers as a means of communication and for information searching. In addition, access rate for teachers was observed to be much higher in schools. Strategies on how to utilize ICTs to improve educational outcomes were also, suggested and recommendations given on issues that touch on ICTs access and infrastructure; human resources and framing; policy environment, financing and ICTs investment curriculum development and locally relevant contact. In a related study, Danner and Pessu (2013) ^[9] utilised descriptive survey research design, structured questionnaire for data analysis and mean and standard deviation for data analysis, examined ICT usage habits, perceived ICT competence and related issues of undergraduate students in teacher preparation programmes in Benin City, Edo state, Nigeria. The results showed a low level of ICT usage in the study area. The authors affirmed that their findings are broadly in agreement with findings from studies on the level of computer literacy in Nigerian universities. With respect to perceived ICT competence, the analysis of the data they generated revealed that trainee teacher students did not perceive themselves very competent in ICT.

Ogundele and Etejere (2013) ^[20] utilising correlational survey research design, structured questionnaire for data collection, and Pearson's Product Moment Correlation and t-test of significance statistics at 0.05 alpha level for data analysis, investigated the relationship between computer literacy and teachers' job effectiveness in secondary schools in Kwara State, Nigeria. Their findings revealed that: computer literacy encourages teaching-learning process and teacher's job effectiveness such as in the areas of record keeping, school discipline, and enhancement of student's academic performance. Also, it was found that computer literate teachers perform better in schools than non-computer literate teachers especially in instructional delivery. Their finding also revealed that the relationship between computer literacy and teachers' job effectiveness was statistically significant. Similarly, Akinnubi, Sule and Yisa (2012) ^[5] utilised correlational survey research design, structured questionnaire for data collection, mean, standard deviation, Pearson's Product Moment Correlation and t-test of significance statistics at 0.05 alpha level for data analysis, to examine the impact of computer literacy on teacher's job effectiveness in Kwara State, Nigeria secondary schools. Their findings revealed that a significant relationship existed between teacher computer literacy and job effectiveness in Kwara State secondary schools. Also, it was found that Microsoft Word is the most common computer application which majority of computer literate teachers are conversant with in the study population.

The reviewed studies, appraised the gains of computer knowledge and skills on secondary school teachers job effectiveness within and outside Nigeria. This shows that the knowledge and skill in the use of computer is very essential in modern teaching profession. However, none of the studies examined computer competence skills incidental for effective instructional delivery among English language

teachers in public secondary schools in Ebonyi State, Nigeria; a gap this study covered.

Methodology

Research Design: The descriptive research design based on observational guide was used to investigate the computer competence for instructional effectiveness among English language teachers in senior secondary schools in Ebonyi State. In the view of Abonyi, Okereke, Omebe, Anugwo and Nnachi (2022) ^[1], the descriptive survey design tries to obtain facts and figures from systematically selected segments of a population with the purpose of ascertaining the general characteristics of the population. This design enabled the researchers to obtain rich data from a sample considered to be true representative of the population on the computer competence skills essential for effective instructional delivery among secondary school teachers.

Population and Sample: The population of this study comprised three hundred and fourteen (314) Senior Secondary School English Language Teachers in the 216 (two hundred and sixteen) Government owned Secondary Schools in the three Education Zones of Ebonyi State namely Abakaliki, Afikpo and Onueke Education Zones. While the sample comprised sixty (60) Senior Secondary School English Language teachers from public secondary schools in the three Education Zones.

Instrument for Data Collection: The researcher developed an observational schedule guide titled: Computer Competence for Instructional Effectiveness among English Language Teachers in Senior Secondary Schools (CCIEELTSSS) in Ebonyi State.

Reliability of the Instrument: The instrument was subjected to test of inter-rater reliability using Kendall coefficient of concordance and it yielded a reliability index of 0.86. The scores were obtained after five different computer technologists rated each teacher's ability on the specific objectives of the study.

Method of Data Collection: With the use of observational schedule guide developed by the researcher, research assistants (i.e., computer technologists/teachers in the sampled schools) observed the English teachers on their competence for instructional effectiveness during the English classes. The teachers were kindly asked to perform each of the tasks listed in the instrument provided by the researcher. The observers (research assistants) watched them closely and assigned appropriate scores for each teacher based on the rating scale of Very Highly Possessed (VHP, 4-points), High Possessed (HP, 3-points), Lowly Possessed (LP, 2-points) and Not Possessed (NP, 1-point) as a guide. This lasted for a period of three months to enable the research assistants cover the whole teachers.

Method of Data Analysis: Mean and standard deviation were used to answer the research questions. A mean score between 0 – 1.49 will be adjudged NP, 1.5 – 2.49 LP, 2.5 – 3.49 HP, while 3.5 – 4.00 will be adjudged VHP.

Results

Research Question 1

What are the word processing competences possessed by English language teachers for effective instructional delivery in Senior Secondary Schools in Ebonyi State?

Table 1: Mean and Standard Deviation on the Microsoft Word Competences possessed by English language teachers for effective instructional delivery in Senior Secondary Schools in Ebonyi State

S/N	Items	N	X	Sd	Decision
1	Ability to open a Microsoft word application	305	2.72	1.05	HP
2	Ability to open a word processing document with a filename	305	3.09	0.93	HP
3	Ability to create a new folder and save a document	305	3.46	0.91	HP
4	Ability to edit documents and save properly	304	3.42	0.95	HP
5	Ability to change the margins of a document	305	2.92	1.25	HP
6	Ability to adjust the line spacing of a document	305	2.71	1.11	HP
7	Ability to change the type face to bookman for the whole document	305	3.14	1.11	HP
8	Ability to change the layout of a document	305	2.57	1.19	HP
9	Ability to format a document	305	2.79	1.25	HP
10	Ability to preview and print a document	305	3.43	0.95	HP
11	Ability to change paper orientation and margins	305	2.71	1.25	HP
12	Ability to use the tools menu	305	3.38	0.95	HP
13	Ability to review and print documents	305	3.13	1.05	HP
14	Ability to align and justify texts in documents	305	2.90	1.18	HP
15	Ability to use subscripts	305	3.43	0.93	HP
16	Ability to use exit command in a file	305	3.47	0.91	HP
17	Ability to merge two or more files	305	3.42	0.92	HP
18	Ability to use superscripts	305	3.43	0.93	HP
19	Ability to use numbers	305	2.96	1.13	HP

Summary of the result in Table1 showed that English language teachers in public secondary schools in Ebonyi State, highly possessed Microsoft word competence skills. This implies that English language teachers in Ebonyi state are competent in Microsoft word skills.

Research Question 2

What are the Spreadsheet competences possessed by English language teachers for effective instructional delivery in Senior Secondary Schools in Ebonyi State?

Table 2: Mean and Standard Deviation on the Spreadsheet Competences possessed by English language teachers for effective instructional delivery in Senior Secondary Schools in Ebonyi State

S/N	Items	N	X	S.D.	Decision
20	Ability to create a new workbook	60	2.04	1.14	LP
21	Ability to compute the result of students with computer	60	2.13	1.16	LP
22	Ability to edit the data in the workbook	60	2.07	1.16	LP
23	Ability to save the workbook with a choice file name	60	2.33	1.27	LP
24	Ability to use the auto sum to get the scores of the students' performance	60	2.07	1.04	LP
25	Ability to use the average function to get the total average of the students' performance	60	2.38	1.33	LP
26	Ability to preview workbook using page layout view	60	2.22	1.06	LP
27	Ability to save the changes using Csc Excel	60	2.00	1.13	LP

Summary of result in Table2 indicated that the English language teachers in public secondary schools in Ebonyi State possessed low competences in the use of Spreadsheet package. This implies that English language teachers in Ebonyi state are not competent in Spreadsheet skills.

Research Question 3

What are the Electronic Presentation competences possessed by English language teachers for effective instructional delivery in Senior Secondary Schools in Ebonyi State?

Table 3: Mean and Standard Deviation on the Electronic Presentation Competences possessed by English language teachers for effective instructional delivery in Senior Secondary Schools in Ebonyi State

S/N	Items	N	X	S.D.	Decision
28	Ability to create a new blank presentation	60	2.38	1.33	LP
29	Ability to open an existing presentation with a filename	60	2.21	1.28	LP
30	Ability to change the slide layout of the presentation	60	2.13	1.07	LP
32	Ability to adjust the font size	60	2.20	1.28	LP
32	Ability to add word art to the presentation	60	2.40	1.29	LP
33	Ability to add background graphics to the presentation	60	2.27	1.29	LP
34	Ability to add a transition effect to the presentation	60	2.33	1.22	LP
35	Ability to add timing to the presentation	60	2.10	1.26	LP
36	Ability to run the presentation	60	2.25	1.05	LP
37	Ability to deliver teaching in a large class using Power Point	60	2.39	1.07	LP

Summary of result in Table3 indicated that English language teachers in public secondary schools in Ebonyi State possessed low competences in Electronic Presentation. This implies that English language teachers in Ebonyi state are not competent in Electronic Presentation.

Research Question 4

What are the Data Processing competences possessed by English language teachers for effective instructional delivery in Senior Secondary Schools in Ebonyi State?

Table 4: Mean and Standard Deviation on the Data Processing Competences possessed by English language teachers for effective instructional delivery in Senior Secondary Schools in Ebonyi State

S/N	Items	N	X	Sd	Decision
38	Ability to classify data into groups	305	2.25	1.28	LP
39	Ability to sort data into sequence	305	2.18	1.24	LP
40	Ability to create a record from record to record	305	2.38	1.24	LP
41	Ability to analyze data using statistical tools	305	2.24	1.10	LP
42	Ability to use available data processing software such as spreadsheet packages	305	2.19	1.02	LP
43	Ability to create simple data base structure and field for a business organization	305	2.35	1.29	LP
44	Ability to create a report using selected fields from the database	305	2.39	1.24	LP
45	Ability to store data in a suitable storage	305	2.17	1.09	LP
46	Ability to create payroll for workers of different grade levels	305	2.42	1.19	LP
47	Ability to analyze and interpret outcome of businesses on daily basis	305	2.13	1.11	LP
48	Ability to Deliver teaching in a large class using Power Point	305	2.26	1.13	LP

Summary of result in Table4 indicated that English language teachers in public secondary schools in Ebonyi State possessed low competences in Data Processing. This implies that English language teachers in Ebonyi state are not competent in Data Processing.

Research Question 5

What are the ICT competences possessed by English language teachers for effective instructional delivery in Senior Secondary Schools in Ebonyi State?

Table 5: Mean and Standard Deviation on the ICT Competences possessed by English language teachers for effective instructional delivery in Senior Secondary Schools in Ebonyi State

S/N	Items	N	X	Sd	Decision
49	Ability to open an internet browser (Google)	427	2.67	1.08	HP
50	Ability to use computer to store and retrieve information regarding trends in school administration	427	3.02	1.09	HP
51	Ability to use ICT to analyze and interpret information for enhancing activities in the school	427	2.20	1.14	LP
52	Ability to make presentations using power point	427	2.37	1.06	LP
53	Ability use e-mail to convey messages	427	3.14	1.05	HP
54	Ability to work with word processing application software	427	2.90	1.20	HP
55	Ability to search and call up documents effectively	427	3.06	1.06	HP
56	Ability to use computers to administer exams	427	2.23	1.16	LP
57	Ability to use computers to process results	427	2.36	1.08	LP

Summary of result in Table5 showed that English language teachers in public secondary schools in Ebonyi State possessed high competences in ICT as seen on items 49, 50, 55 and 56 but possessed low ICT competence on items 51, 52, 56 and 57. This implies that English language teachers in Ebonyi state are not fully competent in ICT skills needed for effective instructional delivery.

Discussion of Findings

Result of analysis on Table1 revealed that English language teachers in public secondary schools in Ebonyi State possess the word processing competence such as opening a Microsoft application, opening a word processing document with a filename, creating a new folder and saving the document using Csc.Edu as a filename. The result also showed that the teachers possess competence in editing a document by changing the paper size of the document to A4 and changing the margin to "1" on the right and left sides only are low. Equally, the result also revealed that the teachers' level of computer competence in word processing is on a high in the following areas: adjusting the line spacing of the document to "1" throughout the document, changing the type face to bookman old style for the whole document, change the layout of the document so that all the lines begin at the left margin, and in making the size of the main heading 18 font. In addition, the science teachers possess high level of skills in making the main text of a document font size 12, saving edited document to Csc.Edu in a hard drive, preview and print the document and close the

application. The result is in line with that of Alabi (2015) ^[6] who studied the impact of computer literacy on teachers' job effectiveness and reported that the use of computer in instructional delivery is impactful to teachers' instructional effectiveness and students understanding. The finding is also in tandem with that of Ogundele and Etejere (2013) ^[20] that examined the relationship between computer literacy and teachers' job performance and found that knowledge of computer uses enhanced teachers' instructional delivery and overall job performance. Furthermore, the findings are related to that of Akinnubi, Sule and Yisa (2011) who investigated the impact of computer literacy on teachers' job performance and found that computer knowledge is impactful in teachers' performance and that most of the teachers' used in the study are conversant with Microsoft word.

Findings of the study as presented in Table2 on the level of spreadsheet competence possessed by English language teachers' for instructional effectiveness in public secondary schools in Ebonyi State showed that the teachers' do not possess the spreadsheet competences in the following areas: creation of a new workbook, ability to compute student' performance result, editing data in a workbook, saving a workbook with a filename of choice, using the auto-sum function to get the total scores of the student performance. The result equally showed that the teachers' do not possess spreadsheet competence in the area of: using the average function to get the total average of the students' performance, preview workbook using page layout view,

save the changes using Csc Excel and closing the application. The result is in agreement with that of Ogundele and Etejere (2015) ^[21] who reported that there is a positive relationship between computer literacy and teachers' job performance. In particular, they reported that secondary school teachers who possessed good level of computer literacy perform better on their job than their counterparts with low level of literacy in computer usage. The result is also in consonance with that of Akinnubi, Sule and Yisa (2012) ^[5] who reported that computer literacy positively impacts teachers' job effectiveness in Secondary schools. The study finding also agrees with that of Sithulisiwe and Maphosa (2016) ^[30] whose study finding recorded that teachers' computer literacy enhances their job performance although their knowledge of ICT utilization is still low. Thus, suggesting that English teachers and other subject teachers need to undergo further developmental training to acquire these competences which are considered imperative for sustainable teaching and learning to take place.

Findings on the level of electronic presentation skills possessed by English language teachers for instructional effectiveness in public secondary schools in Ebonyi State as presented in table3 revealed that teachers do not possess electronic presentation competences in the areas of: creation of a new blank presentation, opening an existing presentation with a filename, changing the slide layout of a presentation, adjusting the title page of presentation to font size 16 as well as adding word art to a presentation. The result equally revealed that the teachers' computer competences in electronic presentation are on a low in the areas of: adding background graphics to a presentation, adding a transition effect to a presentation, add timing to a presentation and ability to run the presentation. Thus, showing that although they possess competence in electronic presentation, their ability to exercise the competence differs among them based on individual qualifications. The finding is in tandem with that of Alabi (2015) ^[6] who reported that secondary school principals and teachers use of computer enhances their job performance although phobia about the prospect of being proficient in it hinders the acquisition of skills in its use. Additionally, the result agrees with that of Akinnubi *et al.* (2013) ^[7] who reported that computer literacy enhances secondary school teachers' job effectiveness especially as it relates to the use of Microsoft word applications in presentations.

Furthermore, result of the study as presented on **Table 12** revealed that the respondents agreed that ability to classify data into groups, sort data into sequence, create a record from record to record, analyze data using statistical tools, and ability to use data processing software such as spreadsheet packages are data processing competences not possessed by English language teachers for instructional effectiveness. In addition, the respondents agreed that ability to create simple data base structure and field, create a report using selected fields from the database, store data in a suitable storage, and address a large audience using power point are data processing competence not possessed by English language teachers for instructional effectiveness in public secondary schools in Ebonyi state. The result is in agreement with that of Ogundele and Etejere (2015) ^[21] who reported that there is a positive relationship between computer literacy and teachers' job performance. The result is equally in agreement with that of Okoro (2013) ^[22] who

recorded that data processing skills are one of the fundamental computer skills that teachers need to acquire to be functional and effective in job delivery.

Finally, findings on the level of ICT skills possessed by English Language teachers in public secondary schools in Ebonyi State revealed that the teachers' possessed the skills in the areas of: opening an internet browser, use of computer to store and retrieve information regarding trends in school administration, search and call up documents effectively and work with word processing application software. However, the result showed that the English Language teacher's do not possess ICT skills in areas of: using ICT to analyze and interpret information for enhancing activities in the school, make presentations with PowerPoint, use computers to administer exams and use computers to process results. The result is in agreement with that of Onasanya, Shehu, Ogunlade and Adefuye (2011) ^[28] who reported that the use of ICT enhances teacher's performance although the level of awareness among most of the teachers may be low. The result also agrees with that of Akinnubi *et al* (2013) ^[9] that ICT use in school enhances teachers' effectiveness on the job. This shows that a good knowledge and possession of skills in computer literacy is essentially for teacher's instructional and overall performance on the job.

Conclusion

English language teachers in public secondary schools in Ebonyi State possess computer competence for instructional effectiveness in word processing, but not in spreadsheet, electronic presentation, data processing and ICT. Equally, there were significant differences in the mean ratings of the English language teachers based on their gender and academic qualification in public secondary schools in Ebonyi State on the level of word processing, spreadsheet, electronic presentation, data processing and ICT competence they possess for instructional effectiveness. This implied that teacher's gender and academic qualifications of the teachers influences the level of computer competence they possess which impacts on their instructional effectiveness.

Recommendations

Based on the findings of the study, the following recommendations were made:

1. The State Ministry of Education through the school principals should ensure that adequate computer facilities are provided in every public secondary school to enhance quality teaching and learning since the teachers mostly do not possess a good knowledge and competence of computer use.
2. Principals should ensure that every teacher including English language teachers who are not computer literate are encouraged to acquire such knowledge and competence through seminars and support for in-service training.
3. The State Ministry of Education and principals should carry out periodic assessment of teachers' computer competence level to ensure that standards are followed and sustained by all and sundry in the school. This would aid significant implementation and actualization of the objectives of the curriculum because of the proven efficacy of computer knowledge and skills in enhancing job performance.

Authors Contribution

1. Ude, Judith Chinedu: Comprehensively developed the content of the work.
2. Ubi Veronica: Contributed in content and editing of the work.
3. Okpube, Nnaemeka Michael: Carried out data analysis and interpretation of results

Conflicting Interest: There was no conflicting interest among the authors.

References

1. Abonyi SO, Okereke SC, Omebe CA, Anugwo MN, Nnachi NO. Foundations of educational research and statistics. Enugu: TIMEX Printing and Publishing, 2022.
2. Ali A. Science, technology and mathematics education as tools for poverty alleviation. keynote address presented at the 12th National Conference of the School of Sciences. Federal College of Education, Eha-Amufu, 27-30 November, 2012.
3. Achuonye KA. A comparative study of computer literacy in urban and rural primary schools in Rivers State of Nigeria. *Journal of Sociological Research*,2012;3(2):99–104.
4. Adomi EE, Kpangban E. Application of ICTs in Nigerian secondary schools. *Library Philosophy and Practice*, 2010. www.mysitefeed.com/feed/3688
5. Akinnubi A, Sule Y, Yisa PA. Computer literacy and teacher job effectiveness in Kwara State secondary schools. *Academic Research International*,2012;2(3):201–213.
6. Alabi OO. An assessment of level of computer literacy and phobia among private secondary school principals in Kaduna North local government area of Kaduna State, Nigeria. *Journal of Biology, Agriculture and Health Care*,2015;2(6):18–27.
7. Allan MJ. The use and abuse of PowerPoint in teaching and Learning in the life sciences. 2013. <https://doi.org/10.3108/beej.2003.02000004>
8. Atuma U. Ebonyi government hands out tablet computers to senior secondary school teachers, 2017.
9. Danner RB, Pessu COA. A survey of ICT Competence Among Students in Teacher Preparation Programmes at the University of Benin, Benin City, Nigeria. *Journal of Information Technology Education Research*,2013;12(2):33–48.
10. Federal Government of Nigeria. National policy on education (revised edition). Lagos: NERDC Press, 2013.
11. Federal Ministry of Education. Nigeria national computer education policy, 1988. Lagos: Government Press, 1988.
12. Gaji MH. ICT skills among teachers in selected public secondary schools in Zaria metropolis, Kaduna state, Nigeria. *African Journal Online*,2014;10(2):33–40.
13. Get into Teaching. Teach computing. 2016. <http://www.getintoteaching.education.gov.uk/explore-my-options/teach-computing>
14. Idowu B. Merit key in private colleges. *Daily Nation*, 2014, 13.
15. James M. Assessment, teaching and theories of learning. In: Gardner J (Ed.). *Assessment and learning* (1st ed.). London: Sage Publishers, 2016, 101–117.
16. Jegede PO, Owolabi JA. Computer education in Nigeria secondary schools: gaps between policy and practice. *Meridian: A Middle School Computer Technology Journal*,2015;6(2):85–94.
17. Loyd B, Gessard C. The effect of sex, age and computer experience on computer attitudes. *AEDS Journal*,2014;18(2):67–76.
18. McCannon M, Crews BT. Accessing the technical training needs of elementary school teachers. *Journal of Technology and Teacher Education*,2010;8(2):111–121.
19. Obeng TK. Practical application to ICT to enhance university education in Ghana, 2014. <http://www.US.F144.mail.yahoo.com/ym!showletter/msgid>
20. Ogundele MO, Etejere PAO. Computer literacy and secondary school teachers job effectiveness in Kwara State, Nigeria. *African Journal of Teacher Education*,2013;3(1):1–8.
21. Ogunmade TO. The status and quality of secondary schools science teaching and learning in Lagos state, Nigeria. (Doctoral dissertation, Edith Cowan University, Perth, Australia), 2015. <http://or.ecu.edu/cgi/viewcontent.cgi?article=1086&content=thesis.pdf>
22. Okoro J. Assessment of information and communication technology competence possessed by university postgraduate business education students to handle entrepreneurship business challenges in Nigeria. *Global Journal of Management and Business Research*,2013;13(8):42–51.
23. Okoro J, Okoro PE. Information and communication technology (ICT) skills required of office education graduates as perceived by managers/supervisors. *Delta Business Education Journal*,2009;1(50):147–158.
24. Okunloye RW. De-professionalization of teaching and teachers' productivity in Nigeria. *African Journal of Information Technology and Educational Media*,2015;1(3):245–252.
25. Oladunjoye P, Benwari NN. Computer literacy among undergraduate students in Nigerian universities. *British Journal of Educational Research*,2014;12(2):1–11.
26. Olaolu PA, Abdulrahman OS, Habibatu MY. Computer literacy and teacher job effectiveness in Kogi state secondary schools. *Academic Research International Journal*,2012;2(3):329 – 333.
27. Omoifo CN. Dance of the Limit. Reversing the Trends in Science Education in Nigeria. Inaugural Lecture University of Benin, Benin City, 2012.
28. Onasanya SA, Shehu RA, Ogunlade OO, Adefuye AL. Teachers awareness and extent of utilization of information communication technologies for effective science and health education in Nigeria. *Singapore Journal of Scientific Research*,2011;1(1):49–58.
29. Opie JO. Computer-aided-Instruction and teaching, learning process in secondary schools. *Journal of Education and Sociology*,2013;10(3):74–88.
30. Sithulisiwe B, Maphosa C. Examining teachers' computer literacy and utilization of ICTS in teaching and learning at primary school level. *Journal of Communication*,2016;7(2):231 – 240.
31. Technokids. Integrating technology into curriculum with project-based learning. Technokids inc. 2097 Bates Common Burlington. On LTR Das Canada, 2011. www.Technokids.com.

32. Ugah JO, Ukpai CO. A modern approach to computer applications, 2009.
33. West African Examination Council (WAEC). Chief examiners report. Lagos: Nigeria, 2021.
34. West African Examination Council (WAEC). Chief examiners report. Lagos: Nigeria, 2022.
35. West African Examination Council (WAEC). Chief examiners report. Lagos: Nigeria, 2023.