Assessment of Language Education Lecturers' Computer and Digital Literacy Skills towards E-Learning at Adekunle Ajasin University, Akungba-Akoko, Nigeria

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Abstract

Computer and digital literacy skills and knowledge are highly recognized as essential competencies that language teachers and learners need to function effectively in the twenty-first century. Indeed, teachers are being challenged to acquire and upgrade their knowledge and skills base (Dashtestani, 2014). Many reports show that a higher percentage of language teachers employed lack digital knowledge, training, skills and competencies to use computers professionally to teach languages. This study evaluated the digital literacies of eight (8) language education lecturers at the Department of Arts Education in Adekunle Ajasin University, Akungba-Akoko, Nigeria. A survey instrument was adopted from Milliner and Cote (2018) to evaluate lecturers' access to computers, assess their ability to complete computer-related tasks and to question their personal and professional use of computers. This study discovered that some of these language education lecturers, though had some knowledge and skills in computers and digital literacy but their depth of applications of computer and digital knowledge and skills was limited or unsophisticated, and therefore did

not meet the required computer and digital literacy skill competencies for language teaching and learning in the twenty-first century. It is interesting, however, to note that the lecturers were obligated to continuously upgrade their knowledge and skills base. It is recommended that training in computer-assisted language learning should be included in language teacher education for both pre-service and in-service teachers in Nigeria.

Introduction

Language is a means of communication and it involves all species but only human beings are the ones that have mastered cognitive language communication. Linguists have identified five basic components of language: phonology, morphology, syntax, semantics, and pragmatics. These components are found across languages. Language (acquisition or learning) development process and literacy is the primary interest of the applied linguist. Language education is the process and practice of a second or foreign language, which is a branch of Applied Linguistics, but can be an interdisciplinary field. In short, language education is about teaching and learning a language. It pre-occupies with the four basic language skills of listening, speaking, reading, writing, alongside with grammar (Amuseghan et al 2016). These language skills are integrated, and as much as possible, utilize activities that integrate them since each reinforces the other. Language education emphasizes curriculum and instruction to facilitate language learning. This is why it has become a special education programme in the teacher education all over the world, Hubbard (2008) and Kessler (2007) report that there is scarcity of Computer-Assisted Language Learning (CALL)and Information and Communication Technology (ICT) instruction in professional language teacher education programmes.

Naturally, education is better acquired through a mother tongue or first language, but teaching and learning through a second or foreign language encourages understanding between cultures, improves students' cognitive ability and prepares them for life beyond school, even global connectivity and opportunities. But in case of Nigeria and some other African countries, English Language is adopted as the language of instruction as well as the official language. The language policy in Nigeria is influenced by a lot of factors among which are political, ethnic, economic, attitude, globalization, and more importantly digital global language literacy, and the negative attitudes of both the Nigerian elite and the ignorant parents towards Nigerian languages. Most Nigerians develop positive attitude towards English language due to the negative impression created by the colonial masters designating their native languages as "vernaculars", and which were prohibited in the classrooms with an imposed "fine" right from the child developmental stage at schools. Now to go back in this twenty-first century to mother tongue as practiced in the advanced countries, and as confirmed by linguists and psychologists that pupils learn best in their mother tongue, may be

hard to Nigerian educational stakeholders to take and approve in the consciousness of globalization of English language and economic opportunities.

The United States Department of Education (1996) defines digital literacy as acquisition of computer skills and the ability to use computers and other technology to improve learning, productivity and performance. No doubt, the understanding of computers and ability to apply computer skills to create, communicate and collaborate for problem-solving and critical thinking is crucial to teaching and learning activities in a literate society. Literacy has always been important for success not only in learning but also at work, and life in general, and unless our society undergoes a drastic change it will always be important.

However, literacy is not just about being able to read and write fluently. As essential as that is, many have argued that computer literacy is just as important in our modern world. A few decades ago, computer use was mostly relegated to a handful of professions. Not many people own their own computers, and most computers were used as a tool on the job. These days, there is at least one computer in every household, and most people have active accounts on Facebook or Twitter or at least an email address. In the twenty-first century, digital literacies and traditional literacies (reading and writing) complement each other to effectively prepare learners to acquire, develop and prepare for better job prospects, understanding of use of new media, support more independent language learning and provide wider social interaction options (Corbel & Gruba, 2004). Despite the new trends in technological advancement and their applications to all sectors in the society, there are reports here and there of contemporary language teachers having low levels of digital literacies. In fact, there is a reported lack of digital training in English teacher education programmes, and that teachers usually teach in the way they were taught (Amuseghan, 2019).

Sincerely speaking, almost all activities require the knowledge of computers, and their effective applications will put you at an advantage from family setting to school, and from work to the market - there is computer application everywhere that can even make you work from home if there is a reliable internet connection. A significant proportion of communication today is carried out remotely on computer networks. Therefore, digital literacies are crucial for the twenty-first century and future relevance.

The Research objective

The research objective of the study is to investigate and assess the language lecturers' computer and digital literacy skills and their applications to e-learning/classrooms.

The Research Questions

In view of the above, the following research questions are raised:

(a) Did language education lecturers have computer literacy skills?
(b) Did the lecturers have access to computers and apply computer literacy skills to teach students in classrooms?

(c) How did the lecturers learn their computer literacy skills and acquire digital training?

(d) What is the experience and efficiency of the lecturers in digital skills?

(e) What is the lecturers' frequency of use of computers and software applications in classrooms?

(f) Did experience, age, sex and qualification reflect in the lecturers' applications of computer literacy skills and digital skill applications in classrooms?

Research Instrument

All language education lecturers were personally called on their phones to respond to a questionnaire on computer and digital literacy skills. This survey instrument was adopted from Milliner and Cote (2018) to evaluate lecturers' access to computers, assess their ability to complete computer-related tasks and to question their personal and professional use of computers.

The Research method and data analysis

This study is a survey of the language education lecturers' ownership and accessibility to computers, ability to perform tasks digitally, personal and professional use of computers. All the eight language lecturers, comprised of four males and four females, who ranged widely in age (Table 1) are full time staff. The questionnaire (adapted from Cote & Milliner, 2018) was administered to the lecturers in the Department of Arts Education, Faculty of Education, Adekunle Ajasin University, Akungba-Akoko, Nigeria. The data gathered were analysed using percentages.

Respondents

The study surveyed the language education lecturers in the Department of Arts Education where English and Yoruba language teachers are trained as pre-service and in-service professional teachers at Adekunle Ajasin University, Nigeria. The language education lecturers are responsible for teaching language method courses, seminars, Applied Linguistics courses, and supervising of Projects, and Teaching Practice. There is an Educational Technology Resource Centre with full audio-visual capabilities that serves as a resource centre for both lecturers and students to use and apply computer literacy and digital skills for teaching and learning purposes. Lecturers and students are free to bring their own devices, however, if required. The Centre has an inventory of computers, digital and technical hardware and both lecturers and students have access to them and technologists are always present to guide on the use of the equipment. The respondents comprised 8 lecturers made up

of 4 males and 4 females who are full-time academic staff of the Department. There are 2 Professors, 4 Senior Lecturers, and 2 Assistant Lecturers with 6 having PhD, and the remaining 2 having M Ed./M.A. but are on PhD Programmes. They are all ranged widely in age (Table 1). 80 % of the respondents have between 15 and 30 years, while only 20% have between 5 and 14 years teaching experience at tertiary level.

Table 1: Summary of teacher's ages (N=8)

Age Group	Number	Percentage %
25 – 29	0	Nil
30 – 39	2	25 %
40 – 49	1	12.5 %
50 – 59	3	37.5 %
60 – 70	2	25 %

EFL teachers' experience using computers in classroom

As illustrated in Table 2, 6 out of the lecturers, representing 75 % selected 1 – 5 years as experience of using computers in the classroom. It shows that the most experienced lecturers are adjusting to using computers in line with the university policy which makes computer training and literacy compulsory for lecturers.

Table 2: EFL teachers' experience using computers in classroom

Years' experience	Number	Percentage %
1 – 5	6	75%
6 – 10	1	12.5 %
11 – 15	1	12.5%
15 – 20	-	-
20 and above	-	-

Digital device ownership

As shown in Table 3, computer ownership is very high among the lecturers. The percentage of smartphone is 100%, Notebook PC is 85%, Tablet is 67. Only one lecturer, representing 12.5 % owns a smart device.

Table 3 : Digital device ownership (N=8)

Device	Percentage %

Desktop PC	47%
Notebook PC	85%
Tablet	67%
Smartphone	100%
Smart Device	12.5%

Computer skills

Table 4 shows that lecturers indicated they learnt computer skills from a combination of different sources but the most common source was learning by themselves (100%), family (65%), and colleagues (45%). Despite this, formal training through workshops and conferences (87%), and formal education (15%) and private training at computer training centre (35%). Findings show that formal training opportunities were still relevant and necessary for teaching purposes.

Table 4: How did you learn to use a computer for teaching purposes?

Learning Source	Percentage of Respondents %
Yourself	100 %
Friends	Nil
Colleagues	45%
Family	65%
Private Training Centre/Institute	35 %
Teaching workshops or conferences	87 %
Formal education (e.g. Certificate, Diploma, B Sc., M.A.)	15%
YouTube & other media	Nil

Lecturers' self-assessment of digital skills

Table 5 shows, on a scale of 1 – 4 , lecturers' self-assessment of their digital skills on computer literacy, internet literacy, and typing skills as poor, adequate to good. None of the lecturer considered himself or herself excellent.

Table 5: Self-assessment of digital skills

	Poor	Adequate	Good	Excellent

	(1)	(2)	(3)	(4)
Computer literacy	12.5%	50 %	37.5 %	-
Internet literacy	25%	37.5 %	37.5 %	-
Typing speed	25%	37.5 %	37.5 %	-

Software applications and frequency of use

In Table 6, respondents indicated that they use the Internet (62.2%) and email (50%), multimedia (50%), online discussions or forums (50%), and text chatting (50%). The other software applications that most commonly attracted were social networking (62.5%) and word processing (3 – 4 times per week 50%). It is noted that some tools that represent areas where robust teaching could be provided were not applied at all by all the respondents by 'rarely' or 'never/ I don't know' responses. Each of these tools therefore represents areas where additional training could be focused for language education lecturers.

Table 6: Software applications and frequency of use

Programme	Almost everyday	4-5 times per week	3-4 times per week	1-2 times per week	Rarely	Never/I don't know
Word processing	25%	50%	12.5%	12.5%	-	-
E-mail	50%	25%	12.5%	12.5%	-	-
Internet	62.5%	12.5%	12.5%	12.5%		
Database						
Spreadsheet						
Graphics (e.g. Adobe Illustrator, Photoshop)						
Website design						
Multimedia (audio & video)	50%	25%	25%	-	-	-
Social networking	25%	62.5%	12.5%			
Language software (CD-ROM)						
Concordance software						
Blogging						

Wiki						
Online discussions or forums	50%	25%	25%	-	-	-
Text chatting	50%	-	-	25%	25%	
Video conferencing	-	12.5%	25%	25%	37.5%	-
Computer games	-	12.5%		12.5%	75%	
Cloud computing	-	-	-	-	-	-

Computer-related skills questions

Table 7 shows responses to questions on ability to carry out a variety of digital tasks by lecturers. The respondents indicated confidence in carrying out the tasks as indicated. But those tasks involving creating web page, recording and editing sounds had the highest percentage of "No response". This was followed by writing of files onto a CD, resizing a photograph, and creating database using Access or Excel with a response of 37.5 "NO" for each of the tasks.

Table 7 : Computer-related skills questions

Question	Yes %	No %
1.Can you properly turn on and shutdown a computer?	100%	-
2.Can you start and exit a computer programme?	100%	-
3.Can you print a document using a printer?	100%	-
4.Can you create a basic Microsoft Word document?	100%	-
5.Can you send and receive attachments through e-mail messages?	100%	-
6.Can you search for information using a web search engine?	100%	-
7.Can you move a file from a hard drive to a USB drive?	100 %	-
8.Can you download and save files from the web?	100%	-
9.Can you change the font style and size in a document?	100%	-
10.Can you change monitor brightness and contrast?	100%	-
11.Can you minimize, maximize and move windows on the desktop?	100%	-
12.Can you perform file management including deleting and renaming files, etc.?	100%	-
13.Can you copy, cut and paste inside a document?	100%	-
14.Can you create a simple presentation using PowerPoint?	75%	25%
15.Can you install a software programme?	75%	25%
16.Can you write files onto a CD?	62.5%	37.5%
17.Can you resize a photograph?	62.5%	37.5%
18.Can you create a basic Excel spreadsheet?	75%	25%
19.Can you scan a disk or file for viruses?	75%	25%
20.Can you use a video conferencing tool on the web?	62.5%	37.5%
21.Can you record and edit sounds?	50%	50%
22.Can you create s simple database using Access or Excel?	62.5%	37.5%
23.Can you create a simple web page?	50%	50%

Teacher-education development programme All the respondents agreed on the 5-item questions based on needs of computer knowledge and training in teacher education programme and relevance to the modern society. The questions attracted 100% "Yes" response.

Table 8 : Do you agree as a professional language teacher?

Question	Yes %	No %
1. Computer , digital literacy and communication skills are compulsory requirements for twenty-first century education and job opportunities	100%	-
2. Self-development and learning more about computers and digital applications is necessary?	100%	-
3. insufficient internet facilities in the classroom for e-learning	100%	-
4. CALL and traditional methods should complement each other in language learning.	100%	-
5. Compulsory training in computer-assisted language learning should be included in language teacher education	100%	-

Discussion

Available reports show how computer and digital literacies can improve the quality of teaching and learning (Corbel & Gruba, 2004, Dashtestani, 2014). Despite this, there are contemporary findings of language teachers with low levels of computer and digital literacies (Amuseghan, 2019). In Tables 1 and 2, lecturers whose age ranged from 25 to 39 years were computer and digital literate and had 5 years' experience in language teaching. But all respondents agreed that computer and digital literacies are required in the twenty-first century education and very relevant for job opportunities and social networking. The oldest and most experienced lecturers were made to upgrade their computer and digital skills base in line with the new policy recognizing digital literacies alongside traditional literacies (e.g. reading and writing) in order to meet students' twenty-first century needs to communicate, interact, function and learn new ideas for problem-solving and critical thinking.

However, Tables 5, 6. And 7 exposed respondents' limited knowledge, and confidence in certain applications of some tools that are necessary and very relevant for effective use of them in teaching and learning. The study shows that lecturers' depth of knowledge and skills and applications are limited or unsophisticated. The tasks involving creating web page, recording and editing sounds had the highest percentage of "No response". This was followed by writing of files onto a CD, resizing a photograph, and creating database using Access or Excel with a response of 37.5% "NO" for each of the tasks. These shortcomings are pointers

to training needs and areas of focus in teacher education programme in twenty-first century education. It is assumed that if lecturers acquire computer and digital skills competencies, they will be able to demonstrate the skills and competencies themselves and be confident to teach students better. The educational implications of the study are that lecturers having the ability to use a certain tool does not imply that the lecturers know how to best integrate technology into language teaching, and that lecturers recognize that digital technology can support and complement classroom practices and they are committed to improving their digital literacies.

Conclusion

This study is an eye-opener to language education lecturers' computer and digital literacy levels and practices. The study revealed the mode of learning computers, the strengths and weaknesses of the respondents' knowledge, skills and competencies and their applications to language teaching. The study therefore established the training needs of lecturers to acquire, develop and apply computers and internet tools to language teaching.

The study thus recommended that:

(i) Computer, digital literacy and communication skills are compulsory requirements for twenty-first century education and job opportunities. Therefore language education lecturers must make it a priority to acquire these skills for optimal efficiency.

(ii) The study established that Limited knowledge, skills and confidence in certain applications of some tools that are necessary and very relevant for effective use of them in teaching and learning are obviously lacking, therefore, language education curriculum should be reviewed from time to time to accommodate new and emerging digital literacy skills for optimal practices.

(iii) Self-development and learning more about computers through formal and informal training opportunities and digital applications are required.

(iv) There should be consistency and sufficiency of internet facilities in the classroom for effective e-learning.

(v) CALL and traditional methods should complement each other in language learning.

(vi) Compulsory training in computer-assisted language learning should be included in language teacher education.

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