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Assessment of Language Education Lecturers' Computer and Digital Literacy Skills towards E-Learning

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Abstrak

Literasi komputer sama pentingnya di dunia modern di abad kedua puluh satu ini, literasi digital secara efektif mempersiapkan peserta didik untuk memperoleh berkembang dan mempersiapkan prospek pekerjaan yang lebih baik. Penelitian ini bertujuan untuk menganalisis penilaian keterampilan komputer dan literasi digital dosen pendidikan bahasa terhadap e-learning. Penelitian ini mengadopsi penelitian deskriptif dengan tipe survei. Populasi penelitian ini adalah seluruh dosen yang ada di jurusan Pendidikan Bahasa. Delapan dosen bahasa sengaja dipilih untuk penelitian ini. Instrumen pengumpulan data adalah angket yang diadaptasi. Statistik deskriptif digunakan untuk menjawab pertanyaan penelitian dengan bantuan statistik product and service solution (SPSS) versi 20.0 pada taraf signifikansi 0,05. Temuan menunjukkan bahwa beberapa dosen pendidikan bahasa ini, meskipun memiliki beberapa pengetahuan dan keterampilan dalam komputer dan literasi digital tetapi kedalaman aplikasi komputer dan pengetahuan dan keterampilan digital terbatas atau tidak canggih, dan oleh karena itu tidak memenuhi komputer dan literasi digital yang diperlukan. Kompetensi keterampilan untuk pengajaran dan pembelajaran bahasa di abad kedua puluh satu. Studi ini menyimpulkan bahwa komputer, literasi digital, dan keterampilan komunikasi adalah persyaratan wajib untuk pendidikan abad kedua puluh satu dan peluang kerja, pengetahuan, keterampilan, dan kepercayaan diri yang terbatas dalam aplikasi tertentu dari beberapa alat yang diperlukan dan sangat relevan untuk digunakan secara efektif dalam pengajaran dan sedang belajar. Studi ini merekomendasikan bahwa pelatihan dalam pembelajaran bahasa dengan bantuan komputer harus dimasukkan dalam pendidikan guru bahasa untuk guru pra-jabatan dan guru dalam-jabatan.

***Kata kunci**: Asesmen, Dosen Pendidikan Bahasa, Komputer dan Literasi Digital*

Abstract

Computer literacy is just as important in our modern world twenty-first century, digital literacies effectively prepare learners to acquire develop and prepare for better job prospects. The aims of this study analyses assessment of language education lecturers' computer and digital literacy skills towards e-learning**.** The study adopted descriptive research of the survey type. The population for the study consisted all lecturers in the department of Language Education Lecturers. Eight language lecturers were purposefully selected for the study. The instrument for data collection was an adapted questionnaire. Descriptive statistics were used to answer the research question with the aid of stastistical product and service solution (SPSS) version 20.0 at 0.05 level of significant. The findings indicated 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. This study concluded that computer, digital literacy and communication skills are compulsory requirements for twenty-first century education and job opportunities and 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. The study recommends that training in computer-assisted language learning should be included in language teacher education for both pre-service and in-service teachers.

Keywords: Assessment, Language Education Lecturers, Computer and Digital Literacy

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1. 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 (Rao, 2019; Sadiku, 2015; Syakur et al., 2020). Linguists have identified five basic components of

language: phonology, morphology, syntax, semantics, and pragmatics (Madzlan & Mahmud, 2018; Sharma & Puri, 2020; Yoandita, 2019). 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 (Bimmel & Van Schooten, 2004; Damar et al., 2017; Fen & Poh, 2015). 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 (Aydoğan & Akbarov, 2014; Sharma & Puri, 2020; Supina, 2018). 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 (Evans & Cleghorn, 2022; Septiani & Yulkifli, 2021; Tuna & Razı, 2016). This is why it has become a special education program in the teacher education all over the world. There is scarcity of Computer-Assisted Language Learning (CALL) and Information and Communication Technology (ICT) instruction in professional language teacher education program (Fernandes et al., 2021; Winarni et al., 2020).

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 (Ellis et al., 2021; Hitchcock & Dann, 1998; Sandra & Kurniawati, 2020). 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 (Inko-Tariah, 2014; Olokundun et al., 2018; Smiley et al., 2020). Now to go back in this twenty-first century to mother tongue as practiced in the advanced countries (Norahmi, 2017; Putri & Sulistyaningrum, 2021), 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 defines digital literacy as acquisition of computer skills and the ability to use computers and other technology to improve learning, productivity and performance (Anderson et al., 2018; Rahimi & Yadollahi, 2017). 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 (Hong et al., 2021; Papadakis et al., 2018; Rahman, 2019). 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 (Mutohhari et al., 2021; Tiarasari et al., 2018; Weideman et al., 2014).

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 (Dashtestani, 2014; Khalid, 2011; Suraweera et al., 2018). 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 (Chai & Kong, 2017; Dewanti et al., 2021; Istri Aryani & Rahayuni, 2016). 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. It is in line with previous study that state 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 (Kivunja, 2014; Mutohhari et al., 2021; Susanty et al., 2021). Moreover other previous study state that 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 (Ferri et al., 2020; Kljun et al., 2020). In fact, there is a reported lack of digital training in English teacher education program, and that teachers usually teach in the way they were taught.

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

2. METHODS

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, are full time staff. The questionnaire was administered to the lecturers in the Department of Arts Education, Faculty of Education, Adekunle Ajasin University, Akungba-Akoko, Nigeria. The data gathered were analyses using percentages. 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 to evaluate lecturers' access to computers, assess their ability to complete computer-related tasks and to question their personal and professional use of computers use (Milliner & Cote, 2018; Taherdoost, 2016).

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 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 Program. 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. The summary of teacher ages is shown in Table 1.

Table 1. Summary of teacher's ages

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 %

3. RESULTS AND DISCUSSION

Results

EFL Teachers' Experience Using Computers in Classroom

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	-	-

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.

Digital Device Ownership

Table 3. Digital Device Ownership

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

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.

Computer Skills

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

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.

Lecturers' Self-Assessment of Digital Skills

Table 5. Self-assessment of digital skills

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

Based on 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.

Software applications and frequency of use

Table 6. Software applications and frequency of use

Program	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	-	-	-	-	-	-

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.

Computer-Related Skills Questions

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%

Based on 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.

Teacher-Education Development Programme

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%	-

Based on Table 8, All the respondents agreed on the 5-item questions based on needs of computer knowledge and training in teacher education program and relevance to the modern society. The questions attracted 100% "Yes" response.

Discussion

Available reports show how computer and digital literacies can improve the quality of teaching and learning (Dashtestani, 2014; Putri Siahaan, 2020). Despite this, there are contemporary findings of language teachers with low levels of computer and digital literacies. Base on the result 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, based on the result show that 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 program 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.

It is in line with previous study that aimed to investigate the attitudes towards e-learning and digital literacy skills of prospective teachers enrolled in the Department of Computer Education and Instructional Technology at a state university in Turkey (Hamutoğlu et al., 2019). Findings indicated the effectiveness of the treatment on the participants' attitudes towards e-learning platforms. Furthermore, the findings of the regression tests demonstrated that tendency is one of the most significant predictors of digital literacy skills. It is supported by other previous study that describing school's strategy in increasing the professionalism of Primary School teachers through Digital Literacy (Agustini et al., 2020). The results of the study approved the Principal's strategy and the role of the teacher to improve teacher's professionalism through digital literacy run effectively. Some of the strategies used by principals include completing facilities and targets that can support digital literacy, strengthening literacy through e-Learning, school strategies by sending teachers and education personnel to get seminars, training, or technical assistance and helping Teacher Working Groups or Groups Principal's Work.

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. This study therefore 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. The limitations of this study are only using a questionnaire and this research is limited to the scope of the participants involved that only involving one department as

subject. So for future research is expected to be able to further deepen research by involving more subjects in order to make research more reliable and valid.

4. CONCLUSION

This study concluded that computer, digital literacy and communication skills are compulsory requirements for twenty-first century education and job opportunities and 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. 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.

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