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| **RESEARCH ARTICLE**

Lecturers' Perception of the Use of a Digital Language Laboratory

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| **ABSTRACT**

We now live in a digital era with its attendant development from Information Technology (IT) computer systems to Information and Communication Technology (ICT) computer systems with consequences on education systems. Experts have posited that the adaptation of teacher education and professional development programs to the digital era should consider the user's worldview and its implications vis-à-vis education and society in general. Moreso, there has been the belief that teachers show apathy and resistance to the changes brought about by technological advancement and innovations as they affect the dissemination of information and the teaching and learning process. This paper examined the perception of selected lecturers about the use of a Digital Language Laboratory in the teaching and learning process. We adopted the use of a self-constructed questionnaire in soliciting information from language lecturers from the School of Languages, Adeniran Ogunsanya College of Education, Lagos. The paper unravels the challenges faced by the lecturers in fully maximizing the resources available in the digital language laboratory. Recommendations were proffered to resolve the identified challenges in order to enhance its efficient use for effective teaching and learning of languages.

| **KEYWORDS**

1. Introduction

The present technological advancement has affected almost all aspects of life's endeavour, including the educational system. There has been a lot of emphasis on integrating technology in the classroom through innovative teaching strategies that focus on enabling students to achieve the desired learning objectives (Hwang et al., 2015). Technology facilitates increasing student engagement (Northey et al., 2015) which is critical to obtaining the desired learning objectives (Bolkan, 2015). In this present digital era, one of the changes that have taken place during the transition to this era and which has strongly influenced education systems is the development from Information Technology (IT) computer systems to Information and Communication Technology (ICT) computer systems. This has significantly improved communication and interpersonal transferring of information and, consequently, has greatly influenced learning-teaching processes and practices (Tsybulsky & Avidov-Ungar, 2019). More so, most students have become extremely advanced technologically.

Consequently, as technology advances, the role of the teachers to deliver and facilitate learning for their expectant 'techno savvy' students is to be in accord with existing technologies. To ensure effective teaching and learning of languages, the potential of the Digital Language Laboratory (DLL) cannot be overemphasized (Patil, 2018).

The School of Languages, Adeniran Ogunsanya College of Education, Digital Language Laboratory is equipped with a state-of-the-art Digital Language Laboratory comprising forty Computer systems and a Teacher's console. The Computer systems are inter connected wirelessly using a router. Each of the systems has a headset and a mini volume controller used to control the level of the volume of the headset.

2. Review of Related Literature
2.1 The software
The systems are installed with Peucco Smart+, Peucco Multimedia Language Laboratory (MLL) software. Peucco MLL provides an easy way to master languages through the method of learning in a fully computerized ambience availing individual attention and the opportunity to get involved in more task-based and contextual learning, thereby increasing the language proficiency of an individual. This helps the student to perfect oral and aural abilities, and it allows learners to attain mastery over the language.

The features of the software include:

- Group discussion.
- Conference (interactive teaching).
- Sending of lesson note
- Audio & video broadcast
- Class attendance manager.
- General, Group & Private Text/Video Chat
- Text to speech.
- Graphics comparison
- Record personal practice & conversation.
- Play lesson
- Library
- Dictionary
- Monitor & control student
- Lock and unlock screen
- Lock and unlock mouse & keyword
- Listen, speak, write, repeat & record.
- Open Lesson (.pdf, .ppt, .docx, .mp3, .wav, .wmv, .mpeg, .mp4, .avi, etc.)
- Learn/Teach any language

Source: (PeuccoGlobalVenturesLimited, 2020)

2.2 *Teachers' Attitudes to New Technologies*
Research conducted on the role of administrators in the use of technology revealed that the administrators regarding integrating technology in the classroom. One of the many reasons for the failure of not successfully integrating technology is that the administrators believed that 80% of their teachers were not technologically aware of using it effectively; hence, the project failed (Öznacar & Dericioğlu (2017) in (Azhar & Iqbal, 2018)

Along with changes in tools available for teachers comes the challenge of learning how to integrate new technology into our teaching methods. As revealed in the studies listed above, Teachers have been so far unable to take the opportunities of existing and emerging technologies to a degree corresponding to their potential benefits. Needless to say, as educators, teachers must not only react to this change but be pro-active in order to prepare students for the emerging knowledge-based work-force and the challenges of a global economy. Teachers should believe that this requires the active use of new technology tools that can help to capture and sustain the attention of a class. These also make teaching materials more engaging and effective. The use of effective audio-visual aids reduces monotony and helps teachers impart training with a learner-centric approach. This will ultimately lead to collaborative learning, which would motivate the learners to learn (Patil, 2018).

2.3 *Theoretical Framework*
Technology Acceptance Model (TAM), developed by (Davis, 1989), is a model that affirms the proposition that using technology is affected by the individuals' attitude towards technology. This framework can be utilized to analyze individual's acceptance and behaviour toward information technology (Tatlı et al., 2019). In the model, it was established that ease of learning, ease of use of new technologies, and users' beliefs of the benefit to be derived from using new technologies would increase its adoption and probability of acceptance and use of the technology (Turan & Colakoglu, 2008). Furthermore, it has been found that perceived utility directly influences the effective use of technology (Teo, 2009). Indeed, according to the theory, perceived ease of use has a positive effect on perceived benefit and perceived benefit on the attitude towards usage. TAM model is known as one of the robust and valid models which have potentially wide applicability, and it further expresses the focus and peculiarities of the Language lecturers, hence the reason for its use in the study.

3. Research Methodology
3.1 *Purpose of the Study*
This paper seeks to examine the perception of Adeniran Ogunsanya College of Education (AOCOED), School of Languages (SLAN) Oto/Ijanikin, Lagos, Nigeria, lecturers to the use, efficiency, and effectiveness of a Digital Language Laboratory in the teaching and learning process; the challenges confronting the effective use and proffer solutions.

3.2 *Research Hypotheses*
Specifically, the following research hypotheses were formulated to guide the study:

- Technology is not applicable to the teaching and learning of languages.
- There are no benefits to using a digital laboratory in the teaching of languages.
- There are no challenges confronting the use of digital language laboratory.

3.3 *Population*
The population comprises the lecturers in the School of Languages (SLAN), Adeniran Ogunsanya College of Education, Oto/Ijanikin, Lagos.

3.4 *Data Collection*
Data were collected with the use of a self-constructed questionnaire in soliciting information from selected lecturers from the School of Languages, Adeniran Ogunsanya College of Education, Oto/Ijanikin, Lagos.

3.5 *Method of Data Analysis*
Simple percentage and chi-square were adopted in the presentation and analysis of the data generated for the study.

4. Respondents' Background Information
4.1 *Gender distribution*
A total number of twenty-two (22) lecturers were surveyed. In all, we had an equal distribution of gender with 11 male and 11 female respondents, respectively.

4.2 *Age Distribution*
With regards to age distribution, 4 (18.1%) out of 22 respondents are between ages 30-40years, 8 (36.4%) are between 40-50years, while 10(45.5%) are 50years and above. It implies that most of the lecturers in the School of languages, Adeniran Ogunsanya College of Education, are above 50 years old.

4.3 *Academic Qualification*
For academic qualification, 1 (4.5%) respondent has B.A. (ED), 15 (68.1%) respondents have Masters of Arts, 1 (4.5%) respondent has an M.ED., 4 (18.2%) have PhDs while 1(4.5%) has other qualifications. It can be deduced from the table that the majority of the lecturers have second degrees.

4.4 *Years of experience*
With regards to their teaching experience, 3 (13.6%) respondents have teaching experience between 1-10years, 5 (22.7%) out of the respondents have 11-20years teaching experience, 12 (54.6%) respondents indicate they have teaching experience ranging between 21-30years while 2 (9.1%) respondents have over 30years teaching experience. This shows that a higher percentage of the lecturers in the School of Languages have been teaching for over 20 years.

4.5 *Hypothesis One: Technology is not applicable to the teaching and learning of languages.*

Responses	Frequency	Percentage	X^2Value	Table Value	D.f.	Decision
SA	37	33.6				
A	25	22.7				
SD	30	27.3	98.11	21.03	12	Rejected
D	18	16.4				

X^2 = 98.11, Table value = 21.03, D.f. = 12, Alpha Level = 0.05

Hypothesis one, which states that technology is not applicable to the teaching of languages, was statistically tested in the above table, and the result shows that the calculated chi-square value of 98.11 is greater than the 21.03 critical table value at 0.05 significance. Based on the above, the hypothesis is rejected. This connotes that our respondents believe technology is applicable to the teaching and learning of languages.

4.6 *Hypothesis Two: There are no benefits to using (Digital Language Laboratory) DLL in the teaching of languages.*

Responses	Frequency	Percentage	X^{2}Value	Table Value	D.f.	Decision
SA	81	40.9				
A	70	35.4				
SD	27	13.6	107.8	36.42	24	Rejected
D	20	10.1				

X^2 = 107.8, Table value = 36.42, D.f. = 24, Alpha Level = 0.05

Hypothesis two states that there are no benefits to using DLL in the teaching of languages was tested in the table above, and the result shows that the calculated chi-square value of 107.8 is greater than the 36.42 critical table value at 0.05 significance. Based on the above, the hypothesis is rejected. This implies that our respondents believe that there are benefits to using DLL in the teaching of language.

4.7 *Hypothesis Three: There are no challenges confronting the use of Digital Language Laboratory (DLL) in the teaching of languages.*

Responses	Frequency	Percentage	X^{2}Value	Table Value	D.f.	Decision
SA	45	32.1				
A	43	30.7				
SD	36	25.7	40.1	28.87	18	Rejected
D	16	11.4				

X^2 = 40.1, Table value = 28.87, D.f. = 18, Alpha Level = 0.05

Hypothesis three states that there are no challenges confronting the use of Digital Language Laboratory in the teaching of languages was tested, and the result shows that the calculated chi-square value of 40.1 is greater than the 28.87 critical table value at 0.05 significance. Based on the above, the hypothesis is rejected. This connotes that our respondents agree that there are challenges in the use of DLL in the teaching of languages.

4.8 *Discussion of findings*

The first hypothesis, which states that technology is not applicable to the teaching and learning of languages, is rejected. This implies that technology is applicable to the teaching and learning of languages. This is supported by (Krishna, 2021). A language laboratory plays a great role in making the institution's teaching method successful in a very novel way. Language laboratories have become an important part of the paraphernalia for teaching the language in institutions related to language.

The second hypothesis, which states that there are no benefits to using a Digital Language Laboratory in the teaching of languages, was rejected. This connotes that the teachers believe a Digital Language Laboratory is of great benefit to the teaching and learning of languages. This is in line with (Akpan, 2020), who posited that the language laboratory gives every learner the freedom to learn at their own pace. It does not require the teacher's presence at all times. It is used in learning pronunciation and all other aspects of the phonetics of a language, and it exists to help one use technology effectively to communicate.

The third hypothesis, which states that there are no challenges confronting the use of Digital Language Laboratory in the teaching of languages, was also rejected. This implies that the lecturers believe there are challenges in the use of Digital Language Laboratory in the teaching of languages. This result is supported by (Mostafa, 2020) when he said language classes are conducted as theory classes with 100-150 students in a class. There is no lab syllabus. When Institutes decide to have a laboratory, they find language labs are expensive to set up. There are laboratories that need designated space, and in old institutes, there is a lack of space and funding; in the new ones, the number of students is so high that it is difficult to accommodate them at the same time. Also, in the open-ended aspect of the questionnaire, respondents identified issues of erratic power supply, inadequate professional laboratory assistants, and poor knowledge of the use of facilities.

5. Conclusion
Based on the findings of this research work, it can be concluded that:

- Technology is applicable to the teaching and learning of languages; hence the digital laboratory is relevant in AOCOED.
- There are numerous benefits to using a digital laboratory in teaching languages.
- There are various challenges confronting the use of digital language laboratory, especially in AOCOED, the challenges among others include:

  - erratic power supply,
  - poor network connectivity,
  - inadequate competent and professional laboratory assistants,
  - low equipment to students ratio,
  - and poor knowledge of the use of the facilities by lecturers.

5.1 Recommendation
Based on the conclusion of the study, to ensure proper usage of the Digital Language Laboratory, it is recommended that there should be:

- constant, stable, and alternative power supply.
- Router with higher bandwidth and stable internet connections.
- Additional competent and professional laboratory assistants to support staff and students.
- More digital, updated equipment, and total restructuring of the DLL.
- Regular in-service training and exposure of staff and students to the operations of the DLL and new ideas/innovations.
- Additional space for the DLL.
- Allocation of more time for students to promote regular use of DLL.
- The introduction of a course to the students on "Basics of Digital Language Laboratory".
- The sensitization of lecturers to overcome the phobia of using the existing facilities through self-development.

5.2 Limitation of the Study
The limitation of the study includes time constraints and reluctance on the part of the lecturers to respond to the research instrument.

5.3 Suggestions for Future Research
The research can be extended to the students in order to test their understanding and perception of the Digital Language Laboratory because they are at the receiving end of the teaching and learning processes.

Conflicts of Interest: "The authors declare no conflict of interest.
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References
[1]   Akpan, F. C. (2020). Assessment of Language Laboratory and Teaching and Learning of English Language Pronunciation among Undergraduate Students in Nigerian Tertiary Institutions. *Middle European Scientific Bulletin, 5*. doi: 10.47494/mesb.2020.5.89
[2]   Augusto, J. C. (2009). Ambient intelligence: opportunities and consequences of its use in smart Classroom. *Innovation in Teaching and Learning in Information and Computer Sciences, 8*(2), 1-12. DOI: 10.11120/ital.2009.08020053
[3]   Azhar, K. A., & Iqbal, N. (2018). Effectiveness of google classroom: Teachers' perceptions. *PRIZREN SOCIAL SCIENCE JOURNAL, 2*(2), 52 - 66.
[4]   Bolkan, S. (2015). Intellectually Stimulating Students' Intrinsic Motivation: The Mediating Influence of Affective Learning and Student Engagement. *Communication Reports, 28*, 80-91. DOI: https://doi.org/10.1080/08934215.2014.962752
[5]   Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319-339.
[6]   Davis, F. D. (1993). User acceptance of information technology: System characteristics, user perceptions, and behavioral impacts. *International Journal of Man-Machine Studies, 38*(3), 475-487.
[7]   Hwang, G. J., Lai, C. L., & Wang, S. Y. (2015). Seamless flipped learning: a mobile technology-enhanced flipped classroom with effective learning strategies. *Journal of Computers in Education, 2*, 499 - 473. DOI: https://doi.org/10.1007/s40692-015-0043-0
[8]   Krishna, D. (2021). Importance of Language Laboratory in Developing Language Skills. *Patna Women's College, Patna, India, 8*(1), 101 - 106.
[9]   Mahesh, G., Jayahari, K. R., & Kamal, B. (2016). A Smart Phone Integrated Smart Classroom. *10th International Conference on Next Generation Mobile Applications, Security and Technologies*, 88-93.
[10] Mostafa, S. K. (2020). Language Laboratories Research. *A research paper*, 1-41.

[11] Northey, G., Bucic, T., Chylinski, M., & Govind, R. (2015). Increasing Student Engagement Using Asynchronous Learning. *Journal of Marketing Education, 37*, 171 - 180. DOI: https://doi.org/10.1177/0273475315589814

[12] Patil, A. (2018). Relevance of a Digital Language Laboratory to the Teaching and Testing of Listening and Speaking Skills. *India's First Weekly ELT eNewsletter, 1*(26), 1-38.

[13] PeuccoGlobalVenturesLimited. (2020). Multimedia Language Laboratory. *Retrieved from www.peuccoglobal.com/product?Pid=120*.

[14] Shomoossi, N., Amouzadeh, M., & Ketabi, S. (2008). Classroom interaction mediated by gender and technology: The language laboratory course. *Novitas Royal Research on youth and language, 2*(2), 176-184.

[15] Tatlı, Z., Akbulut, H. İ., & Altınışık, D. (2019). Changing Attitudes Towards Educational Technology Usage In Classroom: Web 2.0 Tools. *Malaysian Online Journal of Educational Technology, 7*(2), 1-19. DOI: http://dx.doi.org/10.17220/mojet.2019.02.001

[16] Teo, T. (2009). Modelling Technology acceptance in education: a study of pre-service teachers. *Computers & Education, 52*, 302-312.

[17] Tsybulsky, D., & Avidov-Ungar, O. (2019). Teachers' perception of what it means to be a teacher in the digital age. 1-9.

[18] Turan, A. H., & Colakoglu, B. E. (2008). Faculty's acceptance and use of technology in higher education: An empirical assessment at Adnan Menderes University. *J. Doğuş University, 9*(1), 106-121.