



Assessing Language Laboratory Facilities' Usage, Benefits, and Challenges among Open and Distance Learners in Nigerian Universities


Évaluation de L'utilisation, des Avantages et des Défis des Installations des Laboratoires de Langues parmi les Apprenants de L'apprentissage Ouvert et à Distance dans les Universités Nigériennes


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Abstract

This study assessed language laboratory facilities' usage, benefits, and challenges in the teaching and learning of languages in ODL institutions in Nigeria using a mixed-methods design. ODL stakeholders in single and dual-mode Nigerian universities formed the population of the study. The sample was selected using a multi-stage sampling technique. Three major instruments that were validated by experts in languages and measurement and evaluation of the Faculty of Education, National Open University of Nigeria, and had high positive reliability coefficients were used for data collection. They are: ODL students' usage of language laboratory facilities for learning ($r = 0.950$), Perceived benefits of usage of language laboratory facilities among ODL learners in Nigerian universities ($r = 0.972$), and the interview schedule for ODL language facilitators in the selected universities. Three research questions and two hypotheses guided the study. Frequency counts, percentages, mean, standard deviation, ANOVA, and thematic analysis were used to analyse the data collected. Results showed that respondents use the facilities in one way or another other but not

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always. More than half of the respondents agreed that the language laboratory facilities highlighted are beneficial for teaching and learning languages in Nigerian ODL institutions. Some of the challenges highlighted include the inability of the institutions to provide power-generating systems and adequate language laboratory facilities. Based on the findings, it was recommended that funding institutions, especially language departments, should be improved upon and acquire more language laboratory facilities to increase usage and benefits derived by learners and facilitators.

Keywords: Language laboratory facilities; Open and distance learners; Usage, Benefits, Challenges

Résumé

Cette étude a évalué l'utilisation, les avantages et les défis des laboratoires de langues dans l'enseignement et l'apprentissage des langues dans les institutions d'apprentissage des langues au Nigeria à l'aide d'une conception à méthodes mixtes. Les parties prenantes de l'ODL dans les universités nigérianes monomodes et bimodes ont constitué la population de l'étude. L'échantillon a été sélectionné à l'aide d'une technique d'échantillonnage à plusieurs degrés. Trois instruments principaux qui ont été validés par des experts en langues et en mesure et évaluation de la Faculté d'éducation de l'Université nationale ouverte du Nigeria, et qui présentaient des coefficients de fiabilité positifs élevés, ont été utilisés pour la collecte de données. Ils sont ; L'utilisation des laboratoires de langues par les étudiants pour l'apprentissage ($r = 0,950$), les avantages perçus de l'utilisation des installations de laboratoire de langue parmi les apprenants en ODL dans les universités nigérianes. ($r = 0,972$) et le calendrier des entretiens pour les facilitateurs de langue en ODL dans les universités sélectionnées. Trois questions de recherche et deux hypothèses ont guidé l'étude. Les données recueillies ont été utilisées pour analyser les données recueillies, les pourcentages, la moyenne, l'écart-type, l'ANOVA et l'analyse thématique. Les résultats ont montré que les répondants utilisent les installations d'une manière ou d'une autre, mais pas toujours. Plus de la moitié des personnes interrogées ont convenu que les installations de laboratoire de langues mises en évidence sont bénéfiques pour l'enseignement et l'apprentissage des langues dans les institutions nigérianes d'apprentissage et de débâche. Parmi les défis mis en évidence, citons l'incapacité des institutions à fournir des systèmes de production d'énergie et des laboratoires de langues adéquats. Sur la base des résultats, il a été recommandé que les institutions de financement, en particulier les départements de langues, soient améliorées et acquièrent davantage

d'installations de laboratoire de langues afin d'accroître l'utilisation et les avantages retirés par les apprenants et les animateurs.

Mots-clés: Laboratoires de langues ;Apprentissage ouvert et à distance, Utilisation, Avantages, Défis

Introduction

A language laboratory is an essential tool used in the teaching and learning of a language, especially in a second language situation. It can be described as a classroom or a building that has electronics and mechanical equipment designed and arranged to make the learning of languages easier and more effective than is usually possible without it. Therefore, the language laboratory can be seen as a teaching aid rather than a methodology. It is, therefore, a platform where teachers try to experiment on themselves and the learners as well (Kazi, 2013). It is assumed that teaching and learning using a language laboratory can be an alternative solution to attract students' attention so that they can retain language mastery and get exposed to real-life language usage (Asningtias, 2018). This attests to the necessity of providing language laboratories in schools, as they assist and enhance the teaching of languages. In addition, based on standards, the National Universities Commission (NUC) recognises that a language laboratory helps in the effective training of quality teachers. This is also in consonance with the aim of open and distance education in Nigeria, as summarised in the mission statement of the National Open University of Nigeria (NOUN), which is to provide functional, cost-effective, flexible learning that adds life-long value to quality education for all who seek knowledge (NOUN, 2018).

In the past, there were only physical language laboratories. These days, language laboratories can be physical or virtual. Abdelaziz (2017) observed that there is also a physical language laboratory, which usually has the configuration and appearance of a laboratory that allows the teacher to control the tape of the students from the monitor desk through the teacher's control keyboard. This laboratory requires a physical room/building where both the teacher and students

come for interaction, and is usually common in dual-mode universities because it can be used by regular students as well as distance learners in dual-mode institutions.

Reviewed literature suggests that schools and higher institutions of learning, whether single or dual mode, do not have language laboratories. Where they exist, they are mainly not functional. Therefore, one can safely conclude that students in ODL, dual or single mode, may not have been using the language laboratory. Buttressing this, Fatiloro (2015) stated that language laboratory is noticeably absent in schools and institutions of learning in Nigeria and Ifeanyi (2011) was emphatic that the language laboratory, apart from its conditions, which can be said to be archaic with non-functional devices, is useless, as its use is quite alien both to the lecturers and the students. Again, Omotoyinbo (2020) submits that teachers, during oral English class, do not make use of the language laboratory as a result of their inadequacy and lack of expertise. All these point to the fact that language laboratories are unavailable and, by extension, inaccessible, and students, therefore, do not make use of them.

Presently, language laboratories have become digital. This in itself is good because the ODL mode is heavily technologically driven and would provide an already existing base for the seamless use of these laboratories, if available. Again, students can access the laboratory through their smartphones, tablets, and laptops while interacting with their teachers across the nation and gaining fluency in important areas of language, such as sounds, phonics, phonetics, rhythm, stress, and intonation of language.

According to Ofemile (2018), the availability of language laboratories in schools is very necessary. NUC considers a well-furnished language laboratory with seating for at least 30 students to be an important minimum requirement for accrediting undergraduate English language teacher degree programmes. Adamu and Umar (2018) submit that having a language laboratory provides the teacher with the platform to teach students individually or in groups, and to assess them and facilitate easier pronunciation and other aspects of

language. However, Fatiloro (2015), in Adamu & Umar (2018), report that the language laboratory is noticeably absent in most schools and institutions in Nigeria. In a country like Nigeria, where English is a second language, there should not be any justification for the absence of language laboratories in schools and institutions. The ones available are not properly equipped to serve as a language laboratory. Therefore, in the teaching and learning of French, English, and other languages, multimedia learning resources such as audio and video tapes, language laboratories, computers, magazines, and newspapers are rarely used. According to Dianus (2016), effective use of language laboratories in language education depends largely on the availability of useful and up-to-date resource materials, including tape recorders and related materials, in the language laboratory. These facilities are, however, not usually available in many institutions, and this hinders effective teaching and learning of languages at different levels of education (Akpan, 2020). Ihenacho (2017) laments that the non-existence of the language laboratory in Nigeria has greatly hindered effective teaching and learning of oral English.

Many researchers, such as Ifeanyi (2011), Mohammed (2017), Adamu and Umar (2018), Asningtias (2018), and Khalil and Ibnian (2020), emphasise the benefits and advantages that language learners and lecturers gain when teaching and learning are complemented with the use of a language laboratory. According to Bera (2017), language laboratories provide adequate practice for developing language skills, make learning faster and more accurate, make the teacher's role as a guide more effective, allow learners to practice widely, foster communication in the classroom, give learners access to model pronunciation of the language, improve teaching and learning methods, and provide individualised learning and self-evaluation.

Despite these benefits, there are challenges militating against the use of language laboratories. The challenges include the lack of funds and budget, resources, computer skills, poor electricity, poor facility maintenance, lack of interest on the part of students, non-conducive learning environment, under-utilisation/non-availability of relevant materials/equipment, lack of relevant trainings, and lack of technicians to attend to technical problems that could emanate in the

language laboratory (Atolagbe & Adelana, 2020; Khalil and Ibnian, 2020; Asningtias, 2018; Mohammed, 2017; & Hashmi, 2013). These challenges point to the fact that not all undergraduates in language courses are taught in a well-furnished language laboratory. This creates a lot of problems, including a lack of fluency, incorrect diction, and communicative incompetence. Arising from the above, therefore, this research assessed language laboratory facilities for the teaching and learning of languages in ODL institutions in Nigeria.

Statement of the Problem

The use of language laboratories significantly improves the effectiveness of language teaching and acquisition, particularly in second-language contexts. However, there is a severe lack of adequately equipped language laboratories in Nigeria's public schools and higher education institutions, particularly within Open and Distance Learning (ODL) settings. This inadequacy is a serious challenge for ODL learners, many of whom are adult students who did not receive early foundational training in pronunciation and speech fluency. These students lack access to language laboratories, which would otherwise provide them with critical resources to help them overcome deficiencies in oral proficiency, correct diction, and communicative competence. Furthermore, the lack of functional language laboratories undermines the mission of ODL institutions like the National Open University of Nigeria, which strives to provide quality, flexible, and inclusive education. Although some ODL institutions provide virtual learning environments, a lack of dedicated language laboratories, both physical and digital, limits students' ability to practice real-time language interactions, which are essential for mastering pronunciation, rhythm, and intonation. This gap has an impact not only on students' language skills, but also on their ability to meet professional and academic communication demands. Consequently, there is an urgent need to assess the current state, utilisation, and challenges of language laboratories in Nigerian ODL institutions to identify solutions that can improve language learning outcomes. This study aims to fill these gaps by assessing the availability, usage level, benefits, and challenges of language

laboratory use, resulting in recommendations for improved language learning resources in ODL settings.

Objectives of the Study

The main objectives of this study are to:

- i. find out the state of language laboratories, where available;
- ii. examine the level of usage of language laboratory facilities by students in ODL institutions
- iii. ascertain the benefits of language laboratory facilities in the teaching and learning in ODL institutions; and
- iv. investigate perceived challenges hindering the effective use of language laboratory facilities in teaching and learning among ODL institutions.

Research Questions

The following questions were raised:

- i. To what extent are language laboratories available in ODL institutions?
- ii. To what extent do students in ODL institutions make use of the language laboratory facilities?
- iii. How beneficial are language laboratory facilities in the teaching and learning of languages in ODL institutions?
- iv. What are the challenges hindering the effective use of language laboratory facilities in teaching and learning among ODL institutions?

Research Hypotheses

The following hypotheses were generated:

- Ho 1. There is no significant difference between the usage of language laboratory facilities by dual and single-mode ODL students across the academic levels.
- Ho 2. There is no significant difference between dual and single-mode ODL students' perceived benefits of language laboratory facilities usage.

Significance of the Study

Language laboratories are indispensable if products from ODL institutions are to have communicative competence and oral fluency. The findings from this study, therefore, could, among other things, provide data (both quantitative and qualitative) on the status of language laboratories in Nigerian ODL institutions. It could serve to enlighten students on the potency of language laboratories in their language-learning processes. The teachers/lecturers would be properly educated and advised on improving the art of effective teaching of languages using the language laboratory facilities. The data could also motivate policymakers, stakeholders, or relevant parastatals and institutions not only to provide for a language laboratory, but also to do it to specification. It could also provide data for further studies.

Methodology

The mixed-methods research design was applied in this study. These methods were used to obtain a clearer picture from the quantitative data, and then to use the qualitative data to provide a better understanding and explanation of the study in question. A researcher-designed questionnaire and interview schedule were the instruments for data collection. The questionnaire had three sections: the biodata of respondents, the students' usage of language laboratory facilities, and the benefits of using language laboratory facilities in ODL institutions. Using an interview schedule, the researchers interviewed two key stakeholders who are facilitators of language courses in the two participating institutions.

The population of the study was made up of ODL stakeholders in single-mode and dual-mode in Nigerian universities. The study sample was selected using a multi-stage sampling technique. Purposive sampling was used to select the National Open University of Nigeria (NOUN), Abuja, the only single-mode public ODL institution, with headquarters in North-Central Nigeria, and the University of Lagos, which is one of the mega dual-mode institutions in the southern part of Nigeria. Students studying various languages

who were contacted and ready to participate formed the sample for the study. In all, 102 ODL learners participated in the study. Reliability indices for the instrument used to collect quantitative data were also established using Cronbach alpha as follows: ODL students' usage of language laboratory facilities for learning (with $r = 0.950$); perceived benefits of usage of language laboratory facilities among ODL learners in Nigerian universities (with $r = 0.972$). The instruments were validated by experts in languages and measurement, and evaluation. Observations made were effected before proceeding with the administration of the instruments. Data were collected by administering the instruments to the respondents, both online and offline. Descriptive statistics (frequency, percentages, means, and standard deviation) were used to analyse the data for research questions. ANOVA statistics were used for testing the hypotheses. Interview recordings were transcribed, and the resulting document was analysed using a qualitative analysis approach. Thematic analysis was carried out on the qualitative data.

Presentation of Results

- i. **Research Question One:** To what extent are language laboratories available in ODL institutions?

Table 1: Level of Availability of Language Laboratory Facilities for the Teaching and Learning of Languages

S/N	Language Laboratory Facilities	Not Available	Poorly Available	Moderately Available	Sufficiently Available	Very Readily Available	Mean	St. Dev
1	Intranet	64(62.7)	14(13.7)	9(8.8)	7(6.9)	8(7.8)	1.83	1.298
2	Radio/Television Broadcast	37(36.3)	28(27.5)	17(16.7)	11(10.8)	9(8.8)	2.28	1.300
3	Interactive Whiteboard	55(53.9)	17(16.7)	14(13.7)	10(9.8)	6(5.9)	1.97	1.290
4	Electro-Audio Console	66(64.7)	13(12.7)	8(7.8)	10(9.8)	5(4.9)	1.76	1.244
5	Audio Selection Device	60(58.8)	14(13.7)	12(11.8)	12(11.8)	4(3.9)	1.86	1.237
6	Control of Cubicles, Sections or Sectors	66(64.7)	15(14.7)	10(9.8)	9(8.8)	2(2.0)	1.69	1.090
7	Tape Recorder/Player	31(30.4)	19(18.6)	28(27.5)	15(14.7)	9(8.8)	2.53	1.303
8	Mounted Mirror	67(65.7)	17(16.7)	5(4.9)	9(8.8)	4(3.9)	1.69	1.152
9	Microphone and Headsets	30(29.4)	23(22.5)	30(29.4)	10(9.8)	9(8.8)	2.46	1.256
10	Satellite Reception Device	61(59.8)	16(15.7)	10(9.8)	12(11.8)	3(2.9)	1.82	1.189

11	Multimedia Video Projector	56(54.9)	13(12.7)	12(11.8)	14(13.7)	7(6.9)	2.05	1.360
12	Video	25(24.5)	19(18.6)	29(28.4)	12(11.8)	17(16.7)	2.77	1.385
13	Internet	23(22.5)	18(17.6)	31(30.4)	15(14.7)	15(14.7)	2.81	1.340
14	Multiple-Camera System	52(51.0)	18(17.6)	13(12.7)	12(11.8)	7(6.9)	2.06	1.319
15	Overhead Projectors	30(29.4)	20(19.6)	30(29.4)	15(14.7)	7(6.9)	2.50	1.249
16	Video Home System (VHS) Player and Recorder	55(53.9)	14(13.7)	17(16.7)	9(8.8)	7(6.9)	2.01	1.301
17	Interactive Audio	55(53.9)	17(16.7)	8(7.8)	13(12.7)	9(8.8)	2.06	1.392
18	Interactive Video	44(43.1)	22(21.6)	10(9.8)	18(17.6)	8(7.8)	2.25	1.377
19	Local Area Network (LAN)	42(41.2)	19(18.6)	18(17.6)	15(14.7)	8(7.8)	2.29	1.347
20	Long Distance Networks or Wide Area Networks (WAN)	50(49.0)	20(19.6)	9(8.8)	14(13.7)	9(8.8)	2.14	1.386
21	Satellite Broadcasts	52(51.0)	16(15.7)	8(7.8)	20(19.6)	6(5.9)	2.14	1.379

* Percentages in parentheses

Table 1 shows the level of availability of language laboratory facilities for the teaching and learning of languages among students in ODL institutions. More than half of the respondents indicated that the language laboratory facilities are either not available or poorly available. A very low percentage highlighted that the language laboratory facilities are either sufficiently available or readily available. The mean ratings of availability of each of the twenty-one items are below the 3.00 benchmark for the acceptance of a statement on a five-point Likert scale. This is a confirmation of the results found from the frequency and percentage analyses.

To conclude, in the opinion of the majority of the respondents, the availability of the following language laboratory facilities is poor in the opinion of learners in ODL institutions in Nigeria:

- i. Intranet
- ii. Radio/Television Broadcast
- iii. Interactive Whiteboard
- iv. Electro-Audio Console
- v. Audio Selection Device
- vi. Control of Cubicles, Sections or Sectors
- vii. Tape Recorder/Player
- viii. Mounted Mirror
- ix. Microphone and Headsets Satellite Reception Device
- x. Multimedia Video Projector
- xi. Video
- xii. Internet
- xiii. Multiple-Camera System
- xiv. Overhead Projectors
- xv. Video Home System (VHS) Player and Recorder
- xvi. Interactive Audio
- xvii. Interactive Video
- xviii. Local Area Network (LAN)
- xix. Long Distance Networks or Wide Area Networks (WAN)
- xx. Satellite Broadcasts

Research Question Two: What is the usage level of language laboratory facilities by students in ODL institutions?

Table 2: Usage of Language Laboratory Facilities

S/N	Language Laboratory Facilities	Never	Rarely	Sometimes	Often	Always	Mean	St. Dev
1	Intranet	0(0)	10(9.8)	50(49.0)	42(41.2)	0(0)	3.31	0.645
2	Radio/Television Broadcast	0(0)	8(7.8)	51(50.0)	43(42.2)	0(0)	3.34	0.621
3	Interactive Whiteboard	0(0)	10(9.8)	62(60.8)	30(29.4)	0(0)	3.20	0.598
4	Electro-Audio Console	0(0)	8(7.8)	53(52.0)	41(40.2)	0(0)	3.32	0.616
5	Audio Selection Device	0(0)	4(3.9)	49(48.0)	49(48.0)	0(0)	3.44	0.573
6	Control of Cubicles, Sections or Sectors	0(0)	5(4.9)	44(43.1)	53(52.0)	0(0)	3.47	0.592
7	Tape Recorder/Player	0(0)	10(9.8)	46(45.1)	46(45.1)	0(0)	3.35	0.655
8	Mounted Mirror	0(0)	11(10.8)	50(49.0)	41(40.2)	0(0)	3.29	0.654
9	Microphone and Headsets	0(0)	7(6.9)	42(41.2)	53(52.0)	0(0)	3.45	0.623
10	Satellite Reception Device	0(0)	8(7.8)	56(54.9)	38(37.3)	0(0)	3.29	0.607
11	Multimedia Video Projector	0(0)	7(6.9)	49(48.0)	46(45.1)	0(0)	3.38	0.614
12	Video	0(0)	11(10.8)	51(50.0)	40(39.2)	0(0)	3.26	0.651
13	Internet	0(0)	10(9.8)	42(41.2)	50(49.0)	0(0)	3.39	0.662
14	Multiple-Camera System	0(0)	12(11.8)	50(49.0)	40(39.2)	0(0)	3.27	0.662
15	Overhead Projectors	0(0)	12(11.8)	52(51.0)	38(37.3)	0(0)	3.25	0.655
16	Video Home System (VHS) Player and Recorder	0(0)	8(7.8)	50(49.0)	44(43.1)	0(0)	3.35	0.624
17	Interactive Audio	0(0)	9(8.8)	47(46.1)	46(45.1)	0(0)	3.36	0.642

18	Interactive Video	0(0)	8(7.8)	51(50.0)	43(42.2)	0(0)	3.34	0.621
19	Local Area Network (LAN)	0(0)	10(9.8)	50(49.0)	42(41.2)	0(0)	3.31	0.645
20	Long Distance Networks or Wide Area Networks (WAN)	0(0)	7(6.9)	52(51.0)	43(42.2)	0(0)	3.35	0.608
21	Satellite Broadcasts	0(0)	9(8.8)	53(52.0)	40(39.2)	0(0)	3.30	0.626

* Percentages in parentheses

Research Question Three: What are the perceived benefits of language laboratory facilities for teaching and learning in ODL institutions?

Table 3: Perceived Benefits of Language Laboratory Facilities for Teaching and Learning in ODL Institutions

S/N	BENEFITS	SA	A	D	SD	Mean	St. Dev
1.	Every student can record their voice and get feedback	38(37.3)	50(49.0)	10(9.8)	4(3.90)	3.20	0.771
2.	Using the laboratory helps students to better understand the material	40(39.2)	51(50.0)	8(7.8)	3(2.9)	3.25	0.727
3.	Laboratory is used in compliance with students' abilities	27(26.5)	62(60.8)	10(9.8)	3(2.9)	3.11	0.688
4.	Laboratory use motivates students to learn English	38(37.3)	53(52.0)	8(7.8)	3(2.9)	3.24	0.720
5.	Laboratory is an effective medium for language testing	42(41.2)	49(48.0)	4(3.9)	7(6.9)	3.24	0.823
6.	Using a language laboratory helps to develop correct pronunciation	48(47.1)	44(43.1)	5(4.9)	5(4.9)	3.32	0.768
7.	Using a language laboratory stimulates interaction between	40(39.2)	46(45.1)	10(9.8)	6(5.9)	3.18	0.837

	parties in the education process						
8.	Using lab is more interesting than the traditional way	36(35.3)	50(49.0)	11(10.8)	5(4.9)	3.15	0.801
9.	Language aboratory develops communication skills in students	49(48.0)	42(41.2)	7(6.9)	4(3.9)	3.33	0.775
10.	Language laboratory facilitates teachers with real-time monitoring	34(33.3)	56(54.9)	8(7.8)	4(3.9)	3.18	0.737
11.	Language laboratory use builds confidence in learners	42(41.2)	49(48.0)	7(6.9)	4(3.9)	3.26	0.757
12.	Software facilities in the laboratory are user-friendly	38(37.3)	51(50.0)	11(10.8)	2(2.0)	3.23	0.716
13.	Language laboratory helps to improve pronunciation	47(46.1)	42(41.2)	10(9.8)	3(2.9)	3.30	0.768
14.	Language laboratory helps in grooming the overall personality	34(33.3)	50(49.0)	12(11.8)	6(5.9)	3.10	0.827
15.	Language laboratory helps to effectively facilitate the learning of any language effectively	35(34.3)	52(51.0)	12(11.8)	3(2.9)	3.17	0.746
16.	Language laboratory removes the fear and hesitation of students	39(38.2)	50(49.0)	8(7.8)	5(4.9)	3.21	0.788
17.	Use of language aboratory facilities is profitable for classroom engagement and interaction.	42(41.2)	47(46.1)	9(8.8)	4(3.9)	3.25	0.776
18.	Language laboratory promotes an interactive learning process	38(37.3)	51(50.0)	8(7.8)	5(4.9)	3.20	0.784
19.	Soft skills are also taught in the language laboratory system	38(37.3)	50(49.0)	10(9.8)	4(3.9)	3.20	0.771
20.	Language laboratory monitors and evaluates the student's oral aspect of the language	40(39.2)	52(51.0)	7(6.9)	3(2.9)	3.26	0.717
21.	Language laboratory allows for diversity in approach to learning	37(36.3)	53(52.0)	9(8.8)	3(2.9)	3.22	0.726

Table 2 shows the level of usage of language laboratory facilities for the teaching and learning of languages among students in ODL institutions. More than half of the respondents indicated that they use each of the language laboratory facilities highlighted either sometimes or often. It is interesting to note that 0.0% of the ODL learners signified that they do not use it at all, and also that they use it always. The mean ratings of usage of each of the twenty-one items are above the 3.00 benchmark for the acceptance of a statement in a five-point Likert scale. This is a confirmation of the result found from the frequency and percentage analyses. In conclusion, the majority of the ODL learners use the laboratory facilities highlighted in the table above to a large extent.

Table 3 shows the perceived benefits of language laboratory facilities for teaching and learning languages among students in ODL institutions. More than half of the respondents agreed that the language laboratory facilities highlighted are beneficial for teaching and learning languages in Nigerian ODL institutions. The mean ratings of perceived benefits of each of the twenty-one items are above the 2.50 benchmark for the acceptance of a statement on a four-point Likert scale. This is a confirmation of the result from the frequency and percentage analyses. To conclude, the majority of the ODL learners perceived that the use of the laboratory facilities highlighted in the table above is beneficial.

Research Question Four: What are the challenges hindering the effective use of language laboratory facilities in teaching and learning among ODL institutions?

The thematic analysis of the qualitative report indicates a myriad of challenges hindering the effective use of language laboratory facilities in the teaching-learning process in ODL institutions. This analysis covers the challenges identified by distance learners and language experts (facilitators) in the ODL institutions. The major challenges identified by distance learners are summarised below:

Many distance learners commented that a language laboratory is not available in their institutions. One learner affirmed, *I haven't seen any*

language laboratory yet because we have not started using it, but I know is going to be great in our education when we start using it. Another comment related to the non-availability of a language laboratory stated that “Language laboratory is not available in my department”.

Another challenge identified by the learners is the inadequate language laboratory facilities in institutions. A respondent commented that “*language laboratory facilities are not available for students' use*”. Where distance learners have access to a language laboratory used for regular students in a dual-mode institution, the implication is that such a laboratory has no required facilities to support the teaching and learning of languages.

One recurring challenge identified by distance learners is poor internet connectivity. Many respondents affirmed that internet connection is not readily available, even if the language laboratory is available.

Another challenge related to the operation of language laboratories is poor power supply. Respondents affirmed that poor power supply is a major hindrance to the use of language laboratories in ODL institutions. A respondent commented that *poor electricity supply is a major challenge to the use of language laboratory*.

Lastly, inadequate technical know-how has been identified by distance learners as one of the major challenges to the effective use of language laboratories. One learner commented that “*technical problems, lack of technological skills, and poor students' engagement are the main challenges hindering the use of language laboratory facilities in ODL institutions*”.

On the part of the facilitators, there are critical challenges facing the effective use of language laboratories in the ODL setting. The identified challenges are largely in line with those pointed out by distance learners. For instance, when asked about the challenges facing the use of language laboratories, a language expert (facilitator) commented that “*sporadic and haphazard supply of electricity,*

consistency in having the internet facilities on ground that can be accessed anywhere, from any part of the country, and then, having a programme that is regularly updated, having contractors that will agree to regularly update your programme without asking you to pay extra money for the work, and inadequate financing are critical challenges facing the use of language laboratories in many ODL institutions where they are available”.

Another facilitator affirmed that *the first challenge is the technical competence in setting up the lab. In most cases, technical staff attached to language laboratories for regular students are usually limited in terms of exposure and need training”.* She stated further that *“funding is another critical challenge to effective use of language laboratory for language development. Facilities and software require adequate funding, which might not be within the reach of many institutions in the country.*

Hypothesis One: There is no significant difference between the usage of language laboratory facilities by dual-mode and single-mode university students across academic levels.

Table 4: ANOVA Table of Usage across Academic Levels

	Sum of Squares	Df	Mean Square	F	P-value
Between Groups	366.714	3	122.238	1.418	0.242
Within Groups	8450.306	98	86.228		
Total	8817.020	101			

The F value of 1.418 in Table 4 is not statistically significant at a 0.05 level of significance, implying that the differences in the level of students' usage of language laboratory facilities across academic levels are not statistically significant ($p > 0.05$). The differences are, therefore, not generalisable.

Hypothesis Two: There is no significant difference between the perceived benefits of language laboratory facilities by dual and single-mode university students.

Table 5: ANOVA Table of Perceived Benefits across Academic Levels

	Sum of Squares	Df	Mean Square	F	P-value
Between Groups	379.071	3	226.357	1.385	0.242
Within Groups	16013.949	98	163.408		
Total	16693.020	101			

The F value of 1,385 in Table 5 is not statistically significant at a 0.05 level of significance, implying that the differences in the level of students' perceived benefits of language laboratory facilities across academic levels are not statistically significant ($p > 0.05$). The differences are therefore not generalisable.

Discussion of Findings

The findings of this study indicate a high level of utilisation of available language laboratory facilities by students in Nigerian ODL institutions, and this contrasts with prior research suggesting low usage due to the limited availability and functionality of such facilities (Omotoyinbo, 2020; Ihenacho, 2017). This contradiction may be due to recent technological advances, particularly in internet access, which allow students to access digital resources and language laboratory functions online even when physical laboratories are limited. Students can use online tools to share scarce resources, increasing access to previously inaccessible learning materials. The study's unique contribution is to highlight how digital transformation, through internet-enabled learning environments, has begun to overcome traditional barriers to language laboratory use for ODL students in developing countries.

In the same vein, the findings from this research show that students perceived language laboratories as highly beneficial. This agrees with

the findings of previous scholars such as Ifeanyi (2011), Mohammed (2017), Adamu & Umar (2018), Asningtias (2018), and Khalil & Ibnian (2020). The implication is that there has not been a dissenting voice concerning the fact that there are huge benefits in the use of language laboratories for instruction in the ODL system. All hands must, therefore, be on deck to promote it.

Findings from this study also identify challenges posed in the use of laboratory facilities for instruction in the ODL system as lack or inadequacy of the facilities, and lack of power supply and technical know-how on the part of the supposed users. This finding is in agreement with (Hashmi, 2013; Mohammed, 2017; Asningtias, 2018; Khalil and Ibnian, 2020; Atolagbe & Adelana, 2020), who also added lack of budget, under-utilisation, and interest as challenges posed in the use of language laboratory facilities in language instruction.

Conclusion

At the heart of effective language education lies functional language laboratories, especially at the higher level of education. Language laboratories play pivotal roles in equipping learners with appropriate language and communication skills, especially in a second language context. They become more critical when learners need to acquire language and communication skills at a distance. This makes it imperative for a proper investigation of the status of language laboratories across ODL institutions in Nigeria.

This study reveals that, despite the widely acknowledged benefits of language laboratories in improving language instruction, more than half of Nigeria's ODL institutions lack adequate facilities to support effective language learning. Furthermore, while the potential benefits are highly valued by both students and educators, significant challenges, such as limited infrastructure, intermittent power supply, and lack of technical expertise, continue to impede the full utilisation of these facilities.

Recommendations

The following recommendations are made, based on the findings of this study:

1. As a matter of urgency, there is a need to establish language laboratories across all ODL institutions, to facilitate the teaching and learning of languages by distance learners.
2. The use of language laboratories has to be promoted to enhance the achievement of effective teaching and learning of languages in such institutions.
3. Given the challenges related to inadequate facilities, power supply and internet, ODL institutions should provide adequate funding and also come up with an implementation framework that will ensure the sustainability of language laboratories in ODL institutions.
4. It is imperative to organise in-service training as well as build into the existing curriculum of would-be language instructors the technical know-how of language laboratory facility usage.

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