

Full Length Research

A Survey Study of the Use of Audio-Visual Resources amongst Pre-Service Teachers in Lagos State Colleges of Education

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Primary Education occupies an important place in educational system of every Nation. It is the level at which children from 6 years above acquire basic literacy, numeracy and form their attitude towards learning. Recent developments in the field of education and technology has shown that the use of audio visual resources has become the most acceptable methods and resources to make the teaching-learning process student-centered, dynamic and interactive. However, despite the commitments of Nigerian government agencies, their regulation bodies and College managements to position the colleges of education towards efficient content delivery in the basic schools, scholars have observed that the use of instructional resources in providing effective lessons is being continually undermined in Nigerian institutions. While studies have examined availability, adequacy, benefits and challenges of using audio visual resources in schools, this has not been explored amongst pre-service teachers in Lagos State college of education. Hence this survey study was conducted with a view to find out the audio visual resources available, its adequacy, frequency of use, its effects and the challenges of using them. The study employed survey research design. The population of the study comprised 563 Primary and Early Childhood Education students of three State Colleges of Education in Lagos State. A sample size of 250 Pre-service teachers was determined from the population of 563 by using Taro Yamane (1967) formula. Stratified and simple sampling techniques were used to select the 250 Pre-service teachers used for the study in the three (3) State Colleges of Education investigated. Data was collected with structured and validated questionnaire self-constructed by the researcher. Cronbach Alpha reliability coefficient for the constructs of the questionnaire ranged from 0.75 to 0.95 while data were analyzed by using descriptive analysis and chi-square. Findings from the hypothesis raised shows that with the calculated Chi-square value of 233.13 that is significantly greater than the table value of 16.92 at 0.05 level of significance and degree of freedom of 9, audio-visual resources use had significant effect on teaching learning process amongst pre-service teachers in Lagos State College of Education. Findings also show that audio visual resources provided easy avenue to accomplish learning outcome amongst pre-service teachers but this could not be used frequently due to its inadequacy in the Colleges investigated. Respondents also identified the challenges facing the use of audio visual resources to include inadequate funding to procure audio visual resources, lack of policy on Instructional infrastructure, unstable power supply and lack of accessible audio visual resources. The study concluded that college managements should liaise with TETFUND to provide adequate fund to the institutions for purchasing adequate audio-visual resources which should be properly maintained to preserve their durability and optimal use. Secondly, alternative audio visual resources should be improvised when necessary to enhance effective teaching learning process. Lastly, government should promulgate Policy on Information Communication Infrastructure that will provide enabling environment to the use of audio visual resources in the tertiary institutions of learning

Key Words: Audio visual resources, Lagos Colleges of Education, Pre-service teachers, Teaching learning process.

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INTRODUCTION

Education is an indispensable tool in nation building. It is the process through which citizens are provided with means or tools and knowledge for understanding the society and its structure (George, 2019). Primary Education occupies an important place in any Nation's Education System. It is the level at which children from 6 to 11 years above acquire basic literacy, numeracy and form their attitude towards learning. With the above knowledge, pupils are able to read meaningfully, write legibly, compose and do basic calculations. NPE (2004) describes primary education as the key stone of the whole educational structure which provides the basic tools for further educational advancement including preparation for trades and crafts of the locality (NPE, 2004).

Since the introduction of Universal Primary Education (UPE) in the 50s, successive governments had made significant effort to put primary education in Nigeria on a sound footing through various education acts, ordinances and policies to affect the schools, pupils and in particular the teachers, that are very crucial to the success of the program. However, unlike when teachers were the only source that imparted knowledge, experience, skills and values on learners through educational process that was limited to individual environment, developments in technology continues to change the process of education to evolve globally. With digitization, knowledge is expanding rapidly and the roles of the teachers too are expanding. Teaching environment has transformed from teacher centered to learning centered where teachers facilitate learning and make it meaningful to learners rather than just providing knowledge and skills. In order to meet the needs of basic learners, teachers are expected to have a wide variety of methods, skills, adequate knowledge and apply them to create positive classroom environment. Given the need to promote and improve our global competitiveness in basic teaching and learning, the development of teacher pedagogical competencies is expected to offer practical strategies, practices and rules to guide teachers in ways to improve instruction that improves students' performance and quality of the work experience.

Colleges of Education are tertiary institutions that specialize in the training of professional teachers in Nigeria for a duration of 3 year and award Nigerian Certificate in Education. (NCCE, 2012; Adetayo, 2016). They are established to produce teachers who will teach at the basic schools (Akindutire & Ekundayo, 2012; Oritsebemigho, 2014) and their activities are being coordinated by National Commission for Colleges of Education (NCCE). Specifically, scholars have recognized the use of audio visual resources as a method and resources to make the teaching-learning process easy, effective and stimulating as alternative to the traditional verbal resources assumed to be boring and painful for students. To function efficiently and competitively in a world dominated by technological innovation, our basic teachers need to use appropriate methods and technique to make it result-oriented, easy, effective and interesting for best learning outcomes.

In addition, scholars (Nordin, Davis & Ariffin, 2013; Aina & Olanipekun, 2015; Abdalla & Ali, 2017; Lawal & Braimoh, 2018) argued that integrating adequate instructional resources into teaching and learning remains the key to sound education in all learning institutions. This is because teachers are regarded as essential in teaching and learning process (Aina & Olanipekun, 2015) and should therefore be vast in using adequate technology and instructional resources to teach. Teachers must evolve themselves in pedagogy, content, and technology knowledge to create interest in learning (Sahin, 2011). Recent developments in the field of education and technology have shown that the appropriate use of audio visual resources in teaching has become the most acceptable methods and resources to transform the learning environment from teacher-centered to learner-centered (Coleman, Gibson, Cotten, Howell-Moroney and Stringer, 2016). Given the enormous potential of using audio visual resources to successfully impact on pupils learning in Europe, America, Japan, China, it becomes imperative for teachers globally to use audio visual resources for quality delivery of instructions in this digital Era basic schools

In Nigeria, despite the infrastructural facilities provided by the Federal Ministry of Education agencies, the States and their regulation bodies and their commitments to position the colleges of education towards efficient content delivery by their products in the basic schools, scholars have observed that the use of instructional resources in providing effective lessons is being continually undermined (Gur & Karamete, 2015; George, 2019). Also, Lawal and Braimoh's (2018) study noted that critical among the gaps in teaching education in Nigeria is the challenge of integrating technologies into classroom instruction and argue that integrating ICT globally into teaching and learning remains the key to sound education in all learning institutions. Reinforcing the above, Kafyulilo, Fisser, Pieters and Voogt (2015) observed that despite the many benefits of integrating technology into teaching identified in studies, many schools in Nigeria are yet to use these advantages and all these are gaps that call for investigation. In addition, studies on the use of audio visual resources amongst pre-service teachers in Lagos State college of education has not been explored, hence this survey study on the use of audio visual resources amongst pre-service teachers in Lagos State college of Education as a panacea to teaching effectiveness/enhancement in basic schools. In the context of this study, the audio visual resources are slide projectors, close circuit TV (CCTV), public address system, computer, digital monitor cameral, TV monitor,

Tripod stand, VCD players, interactive video, video recorders, white interactive board, multimedia projector employed by lecturers to disseminate knowledge, stimulate thinking and understand, improve teaching quality and develop innovations that affect students' skill. The study found out the types of audio visual resources available, its adequacy, frequency of use, effects of use and the challenges of using audio visual resources for enhanced teaching learning process to better prepare the pre-service teachers for basic school education assignment.

Research Questions

- (1) What are the perceptions of pre-service teachers on the audio-visual resources available in the Colleges of Education for teaching enhancement?
- (2) What is the perception of pre-service teachers on the adequacy of audio visual resources used for teaching learning process?
- (3) What is the perception of pre-service teachers on the frequency of audio visual resources use in the college of education in Lagos State?
- (4) Identify the various constraints faced in using audio visual resources in teaching learning process amongst pre-service teachers

Hypothesis

- (1) Audio-visual resources use has no significant impact/effects teaching learning process amongst pre-service teachers in Lagos State College of Education

LITERATURE

According to Omariba (2022), the need for change in the instructional methods in teacher education has been felt throughout Africa. Hence, teacher training colleges require innovative methods of teaching to keep abreast with changes in the teaching and improve quality of resources. Nigerian educational system can best support the type of teaching that develops those skills for global competitiveness by integrating the use of audio visual resources into teaching and learning activities. Audio - visual aids have been defined in different ways. Most of such definitions have been discussed in terms of equipment and resources and their use in the teaching and learning process. The International Federation of Library Associations and Institutions (IFLA, 2007) defined "Audio-Visual" as "activities that do with "sight and/or sound" and audiovisual resources as "any recorded sound and/or moving and/or still image items". Unwin and McAlase (1988) in the same vein described the word "Audio-Visual" as an adjective which connotes instructional resources that uses a combination of sound and vision. Audio-visual are often referred to as educational instructional media, visual aid, and learning resources.

According to Anzaku (2011), the term audio - visual resources is commonly used to refer to those instructional resources that may be used to convey meaning without complete dependence upon verbal symbols or language. Instructional resources are educational inputs or resources used by teachers to supplement teachings and which are vital to the teaching of any subject in the school curriculum. Omariba (2022) classified audio-visual resources into Audio, Visual and audio-visual. The author describes audio resources to include radio programs, language laboratories lessons, tape and disc recording, telephone lessons, television and sound distribution systems programs. Visual resources are books and self-instructional Resources, Pictures, Photographs, Flash cards, Flip books, Charts, Maps, posters, exhibits, bulletin boards, Magnetic boards, flannel graphs, dioramas, models, Mock-ups, filmstrips, slides, transparencies, silent films, chalkboards, drawings and cartoons while audio-visual resources are the Television programs, films (8mm, 16mm,35mm), videotapes, sound films trips, printed resources with recorded sound, study trips and demonstration.

In their view, Charanjit, Harpreet, Tarsame, EngTek, Melor, Henita and Ihsan (2021) grouped audio visual aids into audio aids, video aids and audiovisual aids. The audio aids are cassettes, songs, lingua-phone and tape-recorders that give real life experience of a textbook or something written that can be heard. Learners gain knowledge by using their hearing senses. Visual aids are the pictures, graphs, printed resources, slides and flashcards that teachers show the students to enhance the impact of the lesson taught while audio visual aids such as videos, 3D-shows, virtual classroom and film projector provide opportunity for learners to see and hear what is taught which make facilitate effective teaching

learning process.

Audio-visual generally makes teaching and learning impactful, empower and establish a language environment for the students (Daniel, 2013). Also, Bhatti (2019) opined that teachers should definitely use more audio-visual aids to improve the speaking skills of the learners as activities done using audio-visual aids may help in providing free and spontaneous practice of language with the help of audio-visual aids. Audio-visual aids arouse the interest of learners and help teachers in explaining the concepts easily and effectively. Mathew (2013) stated that it is the responsibility of the teacher to use audio-visual aids to make the teaching-learning process effective. Similarly, Shamsideen (2016) found that teaching and learning activities as interesting when audio-visual resources are used effectively and efficiently in a classroom-teaching situation. The author considered children learning by observing and copying the behaviors of adults as universal. In his view, Sunder (2010) stated that leaning is more effective when sensory experiences are stimulated. Teaching aids arousing the interest students towards learning, assist their learning experience to be relevant, effective and meaningful.

The world has developed into a global village with so much accessibility to information and integration of knowledge and skills through collaborations. The strategic goal of any modern educational institution is to achieve globally recognized standards in its teaching and learning activities (Okafor & Obikwelu, 2019). This is because quality teacher is fundamental to quality education (Aina & Olanipekun, 2015) and teachers need to integrate technologies into teaching in the 21st century for effective teaching and learning (Abdalla & Ali, 2017). According to Omariba (2022), when these audio-visual resources are available and effectively used in the teaching and learning process, they heighten motivation for learning which make the lesson to become emotionally stimulating as well as intellectually rewarding, provide students with experiences that are fresh exhilarating, delightfully new, varied and appeal to students of varied abilities, making a truly blended environment.

The role of teachers in achieving the above cannot be underrated in teaching learning process (Aina & Olanipekun, 2015) and should be vast in using technologies to teach. However, the successful use of audio-visual in schools has been limited or restrained by a lots of factors. Hosseini and Kamal (2013) observed that despite the availability and accessibility of computers for example, in many schools, particularly in Nigeria, most teachers do not use them to teach. The research conducted by Ashaver and Igyuve (2013) in Benue State Colleges of Education in Nigeria on the use of audio-visual resources in the teaching and learning processes also found that there was an inadequate use of audio-visual aids used in the college due to lack of infrastructure support, human activities and unimpressive audio-visual resources prepared by the librarian. Rather, lecturers were quick in improvising the resources during the lesson. In his contribution, Omariba (2016) research finding revealed that while the emergence of digitalization and modern innovation have transformed learning processes in schools, that the technology intended to change education is received with a low profile as tutors and students are facing many challenges in attempt to use audio-visual technologies in education

The 21st century development in the educational sector has made it mandatory for teachers to engage pre-service teachers digitally so as to acquire the knowledge required to deliver quality lessons to the pupils at the basic schools. Given the enormous potential of using audio visual resources to successfully impact on pupils learning in Europe, America, Japan, China, it becomes imperative for teachers globally to use audio visual resources to engage pupils for improved teaching-learning process. According to George and Ige (2022), lecturers/teachers need to employ a number of activities using audio visual resources to adequately imparted in students and accomplish the attainment of stated educational objectives including the concepts that require creative thinking. Coleman, Gibson, Cotten, Howell-Moroney and Stringer (2016) contend that the appropriate use of ICT tools in teaching had transformed the learning environment from teacher-centered to learner-centered. In the context of this study, the audio visual resources are slide projectors, close circuit TV (CCTV), public address system, computer, digital monitor cameral, TV monitor, Tripod stand, VCD players, interactive video, video recorders, white interactive board, multimedia projector employed by lecturers to disseminate knowledge, stimulate thinking and understand, improve teaching quality and develop innovations that affect students' skills.

Literature abounds on the use of audio visual resources amongst pre-service teachers in different localities and in diverse fields of education. In Nigeria, previous studies identified constraints in effective use of audio-visual in Nigerian schools including the tertiary institutions. Few of these hindrances include inadequate funding, lack of policy on Information communication infrastructure, lack of infrastructural facilities, especially, the supply of uninterrupted electricity, inadequate training of the user to maximize the use, high cost of instructional media and lack of maintenance culture. While studies have examined availability, adequacy, benefits and challenges of using audio visual resources in schools, this has not been explored amongst pre-service teachers in Lagos State college of education. Hence this survey study was conducted with a view to find out the audio visual resources available, its adequacy, frequency of use, its effects and the challenges of using them.

This study was supported by Uses and Gratification Theory propounded by Elihu et al. (1959). The theory provides

explanations to the use of specific media or technologies to gratify their desires or satisfy their needs. The three gratifications are found in its content, process and social use. Content involves gains derived by using specific media or technologies to satisfy needs or desires. Process is the gain or gratification from the experience of using the media as a means of transmitting information while gratification from its social use are the usage of specific media or technologies over a wide range of forming and deepening social ties. The theory justifies why people specifically use a particular medium over the others. In the context of this study, teachers use audio visual resources purposely to disseminate information to the students with ease for better understanding and effective communication without stress. The lecturers/teachers are active users of media or technology to effectively engage the students/pupils with teaching and learning process. The theory is relevant to this study because it has been applied in similar studies to investigate intention of use and the technology or media adopted to satisfy the desires. The theory is also relevant in the sense that the use of audio visual resources facilitates interactive communication, which is a measure of practical effort to use relevant technologies to achieve the desired goals for the benefits of the students/pupils.

METHODOLOGY

The study employed descriptive survey research design for the study. Data was collected from Pre-service teachers in Lagos State College of Education for the study. A sample size of 250 Pre-service teachers was determined from the population of 563 by using Taro Yamane (1967) formula. Stratified and simple sampling techniques were used to select the 250 Pre-service teachers used for the study in the three (3) State Colleges of Education investigated, which were St. Augustine, Michael Otedola and Adeniran Ogunsanya College of Education. The researcher gave more attention to the disciplines of the pre-service teachers to ensure equitable representation of the sample, hence all the students used for the study were in the Department of Primary Education and Childhood Education. Moreover, the final year pre-service teachers were also taken into consideration because they are in a better position to provide information on the subject matter. In all, two hundred and fifty (250) pre-service teachers were selected from the three colleges. The instrument used for data collection was self-constructed structured questionnaire which was validated using Cronbach's alpha test. A 10 item Questionnaire on Availability of Resources (QAVR), 11 item questionnaire on Adequacy of Resources (QADR), 11 item questionnaire on Frequency of Resources (QFROR), 11 item Questionnaire on the challenges of using the Resources (QCHR) and 11 item Questionnaire on the Effects of Using the Resources (QEFOR) were used to elicit responses on each of the issues raised. The instruments were personally administered and collected by the researcher and four assistants. Both the content and construct validity of the instruments were ascertained after subjecting the instruments to responses of a comparable group of sample. Cronbach alpha was used to determine the reliability of the study instruments and reliability coefficient which ranged between 0.75 and 0.95 was obtained and these were considered adequate and of high level of inter-item consistencies. Descriptive statistic was used to analyze the data collected from the research questions. Use of audio visual resources was measured by the types of audio visual available, adequacy, frequency of use, effects and the challenges of using audio visual resources. The instruments were validated by five academic staff of educational management and experts in educational Test and Measurement. Responses to the items were adapted on the 4point Likert type of either Highly Available, Available, Sometimes Available and Not-Available; Very Adequate, Adequate, Sometimes Adequate and Not-Adequate; Very Frequent, Frequent, Sometimes Frequent and Not-Frequent; Strongly Agree, Agree, Disagree, and Strongly Disagree. The criterion for decision making was determined by finding the mean of the nominal values assigned to the options in each questionnaire items using the formula;
$$\bar{X} = \frac{\sum X}{N}$$

Where \bar{X} =mean score; X =score; N = Number of items; Thus, for four Likert scale, Mean Score(\bar{X}) = $\frac{4+3+2+1}{4}=2.50$. Hence, the bench mark used for this study were 2.50. Therefore, the decision rule was that responses above the mean scores of 2.50 are either agreed, available, adequate or frequent while responses below 2.50 are either disagreed, non-available, inadequate or not frequent.

Presentation of Results

The results of data analysis are presented in this section. The results are presented in tables according to the objectives and hypotheses that guided the study.

Research Question One: What are the perceptions of pre-service teachers on the audio-visual resources available in the Colleges of Education for teaching enhancement?

Table 1: Type of Audio Visual resources available for use amongst pre-service teachers

S/NO	ITEMS	Population	Mean	Decision
1	Slide Projector	250	2.54	Available
2	Close circuit TV (CCTV)	250	2.52	Available
3	Public address system	250	3.25	Available
4	Computer	250	2.85	Available
5	Digital monitor camera	250	2.55	Available
6	TV Monitor	250	3.12	Available
7	Tripod Stand	250	2.58	Available
8	VCD Players	250	2.55	Available
9	Interactive Video	250	2.75	Available
10	Multimedia Projector	250	2.60	Available
11	White interactive board	250	2.51	Available
Grand Mean			2.71	

Table 1 shows that with the grand mean of 2.71 obtained, which is greater than the bench mark of 2.50, pre-service teachers responses show that audio visual resources were available. The result shows further that computer with mean score of 2.85, TV monitor with mean score of 3.12, multimedia projector with mean score of 2.60, VCD Players with mean score of 2.55, interactive video with mean score of 2.75, digital monitor camera with mean score of 2.62, tripod stand with mean score of 2.58 and close circuit TV (CCTV) with mean score of 2.52, white interactive board with mean score of 2.51, slide projector with mean score of 2.54 and Digital monitor camera with mean score of 2.55 had mean scores above the bench mark of 2.50 and therefore available in all the colleges of education investigated in Lagos State. Implicitly, all the audio visual resources were available in the colleges investigated but in different proportions.

(1) **Research Question Two:** What is the perception of pre-service teachers on the adequacy of audio visual resources used for teaching learning process?

Table 2: Adequacy of Audio Visual Resources available

S/NO	ITEMS	Population	Mean	Decision
1	Slide Projector	250	2.11	Not-Adequate
2	Close circuit TV (CCTV)	250	2.10	Not-Adequate
3	Public address system	250	2.97	Adequate
4	Computer	250	2.65	Adequate
5	Digital monitor camera	250	2.07	Not-Adequate
6	TV Monitor	250	2.45	Not-Adequate
7	Tripod Stand	250	2.25	Not-Adequate
8	VCD Players	250	2.40	Not-Adequate
9	Interactive Video	250	2.10	Not-Adequate
10	Multimedia Projector	250	2.13	Not-Adequate
11	White interactive board	250	2.20	Not-Adequate
Grand Mean			=2.31	

Table 2 shows that with the overall mean score of 2.31, which is below the bench mark of 2.50, the audio visual resources used to prepare the pre-service teachers for basic schools were generally not adequate. The result shows further that apart from computer (n=2.65) and public address system (n=2.97) that had mean scores above the cut-off value of 2.50, all other audio visual resources had mean scores below the cut-off value of 2.50 and hence not adequate. In addition to the above, only TV monitor (n=2.45) and VCD Players (n=2.40) had mean scores above the Grand mean of 2.31 while all other audio visual resources had mean score below the Grand mean score. Implicitly, the audio visual resources available in the colleges were not adequate.

(2) **Research Question Three:** What is the perception of pre-service teachers on the frequency of audio visual resources use in the college of education in Lagos State.

Table 3: Frequency of Audio Visual Resources use

S/NO	ITEMS	Population	Mean	Decision
1	Slide Projector	250	2.24	Not used Frequently
2	Close circuit TV (CCTV)	250	1.77	Not used Frequently
3	Public address system	250	2.85	Used Frequently
4	Computer	250	2.60	Used Frequently
5	Digital monitor camera	250	2.02	Not used Frequently
6	TV Monitor	250	2.20	Not used Frequently
7	Tripod Stand	250	1.75	Not used Frequently
8	VCD Players	250	2.35	Not used Frequently
9	Interactive Video	250	2.15	Not used Frequently
10	Multimedia Projector	250	2.40	Not used Frequently
11	White interactive board	250	2.14	Not used Frequently
Grand Mean			2.22	

Table 3 shows that with the grand mean score (n=2.22) obtained, which is below the bench mark of 2.50, audio visual resources were not used frequently. The result further shows that apart from public address system (n= 2.85) and computer (n=2.60) that had mean scores greater than the bench mark of 2.50 and therefore considered to be used frequently, all other audio visual resources investigated had mean scores below the cut-off value of 2.50 and therefore not used frequently. On the other hand, while Multimedia projector (n=2.40), VCD players (n=2.35) and Slide projector (2.24) were not used frequently, they had mean scores that were greater than the Grand mean of 2.22. Implicitly, audio visual resources were not used frequently to prepare the pre-service teachers for basic education. This might be due to the inadequacy of the audio visual resources available in the colleges investigated.

(3) **Research Question Four:** Identify the various constraints faced in using audio visual resources in teaching learning process amongst pre-service teachers

Table 4. Challenges of using Audio Visual Resources

S/NO	ITEMS	Population	Mean
1	Poor attitudes of lecturers towards the use of audio visual instruction for teaching process	250	2.35
2	There are improper management and maintenance of audio-visual resources	250	3.45
3	Inadequate Knowledge and skills in using AV for instructional purposes	250	2.45
4	Lack of commitment by lecturers to use audio visual resources	250	2.05
5	Lack of National Policy on ICT (NICI) policy in the tertiary Institutions	250	3.85
6	Inadequate funding to procure ICT tools	250	3.75
7	Lack of motivation on the part of management to encourage use of AV instruction	250	3.25
8	There is inadequate infrastructure to support the use of audio visual resources	250	3.15
9	Inadequate time in teachers' schedules to use audio visual resources	250	2.40
10	Unstable power supply	250	3.25
11	AV resources are not accessible.	250	3.75
12	Lack of enabling environment to promote innovation and risk taking.	250	3.56
Grand Mean			= 3.11

Table 4 shows the challenges in the use of audio visual resources amongst the Pre-service teachers of Lagos State colleges of Education. The grand mean of 3.11 obtained was above the bench mark of 2.50 for decision taking. Hence, the Pre-service teachers agreed that the listed items posed challenges to the use of audio visual instruction to prepare them for basic schools. However, responses to inadequate Knowledge and skills in using AV for instructional purposes($n=2.45$), lack of commitment by lecturers to use audio visual instruction ($n=$) and inadequate time in teachers' schedules to use audio visual resources ($n=2.40$) show that they were not hindrance to use of audio visual resources amongst pre-service teachers.

Hypothesis 1:

Hypothesis

(1) Audio-visual resources use has no significant impact/effects teaching learning process amongst pre-service teachers in Lagos State College of Education

Table 4. Respondents' Responses on Hypothesis I

S/N	STATEMENT	AGREE	DISAGREE	POP	D.F	Calculated X^2	P	Critical Val.	DECISION
1	Use of AV resources stimulate students toward learning process	240	10	250					
2	Use of AV resources allows teachers to create an actual atmosphere of learning	180	70	250	9				Rejected
3	Use of AV resources provides learners with realistic experience that enhance retention memory	200	50	250			0.05	16.92	
4	Use of AV enables students to acquire more knowledge and skills	190	60	250					
5	Use of AV resources promotes profound innovation that stimulate teaching learning process .	150	100	250		233.13			
6	Use of AV affords students the opportunity to learn anywhere and anytime with ease	90	160	250					
7	Use of AV resources enables students to learn more effectively	220	30	250					
8	Use of Audio Visual resources help students to understand difficult concepts easily	175	75	250					

Table 4. continuation

9	The use of AV resources provides opportunity for students to participate actively in class for best learning experience	195	55	250					
10	Use of AV resources affords lecturers the opportunity to improve teaching qualities through modified teaching methods	160	90	250					
		1,802	699	2,500					

Decision Rule

From the table above, it is observed that the calculated Chi-square of 233.13 is significantly greater than the table value of 16.92 at 0.05 level of significance and degree of freedom of 9. The null hypothesis which states that "Audio-visual resources use have no significant effect on teaching learning process amongst pre-service teachers in Lagos State College of Education was rejected while the alternate hypothesis which states that "Audio-visual resources use have significant effect on teaching learning process amongst pre-service teachers in Lagos State College of Education was accepted.

DISCUSSION

Finding in table 1 shows that all the audio visual resources were available in different proportions but are not adequate. The finding is in agreement with the finding of Hosseini and Kamal (2013) who observed that despite the availability and accessibility of computers in many schools, particularly in Nigeria, most teachers do not use them to teach. Similarly, the research conducted by Ashaver and Igyuve (2013) in Benue State Colleges of Education in Nigeria on the use of audio-visual resources in the teaching and learning processes also found that there was an inadequate use of audio-visual aids used in the college due to lack of infrastructure support, human activities and unimpressive audio-visual resources prepared by the librarian. Rather, lecturers were quick in improvising the resources during the lesson. The finding also corroborates those of George and Ige (2022) which found that instructional devices were available in the South West, Nigeria Federal Universities but inadequate. Stressing the importance of availability of audiovisual aids to achieving effectiveness in educational delivery and supervision in the school system further, Sheahan (2018) reiterated that the gross inadequacy and underutilization of audiovisual aids explain the need to upgrade and complement the inadequacies for enhanced teaching learning process. This implies that for teaching and learning to be accompanied by the use of audio-visual aids, it must be readily available in the premises of the citadel of learning such that when it is needed, it will be within reach for the purpose of achieving learning. It also implied that availability, adequacy and as well as the usage of audio-visual aids by teachers would enhance improvement in teaching and learning.

Finding in Table 3 shows that audio visual resources were not used frequently to prepare the pre-service teachers for basic education. It was further reveals that only computer and public address system were used frequently amongst the pre-service teachers. This finding is in agreement with the report of Afolabi and Adeleke (2010) who identified non-availability, inadequacy and non-utilization of learning resources as a result of teacher's poor knowledge as factors responsible for the use of lecture method. It is also in accordance with the finding of Hosseini and Kamal (2013) which observed that despite the availability and accessibility of computers for example, in many schools, particularly in Nigeria, most teachers do not use them to teach. The finding also corroborates that of Kafyulilo, Fisser, Pieters and Voogt (2015) which noted that despite the many benefits of integrating technology into teaching identified in studies (Gur & Karamete, 2015; Sahin, 2011), studies indicate that many schools in Nigeria are yet to use these advantages. The finding is also in line with the finding is Yusta (2016) who posited that using audio-visual aids in teaching facilitate learning faster due to the fact that both senses of hearing and seeing are involved in receiving information with clearer imaginative receptors.

Bhatti (2019) opined that teachers should definitely use more audio-visual aids to improve the speaking skills of the learners as activities done using audio-visual aids may help in providing free and spontaneous practice of language with the help of audio-visual aids. However, the result also indicated that audio visual resources were not frequently utilized because of its inadequacy, rather many lecturers preferred to improvised the resources. According to George and Ige (2022), the availability and adequacy of audio-visual material were critical for determining the frequency with which teachers used the resources to enhance their lessons. Omariba (2022) result of finding revealed that the available audio visual resources in most schools in Nigeria are outdated and causes breakdown even in the middle of a lesson, so the few lecturers with technical skills don't bother to use them.

Findings on the challenges facing the use of audio visual resources for enhanced teaching learning process amongst the pre-service Sand-witch teachers of University of Ado-Ekiti shows that all the listed items posed challenges to the use of audio visual instruction to prepare them for basic schools except inadequate Knowledge and skills in using AV for instructional purposes, lack of commitment by lecturers to use audio visual instruction and inadequate time in teachers' schedules to use audio visual resources. The finding is in agreement with those of Vivian (2010), who highlighted the following as problems hindering the effective use of audio-visual aids: lack of skills by the teachers, lack of funds, interest and awareness on the part of school authorities. The finding also agreed with the work of Arinze and Ezechi (2012) which pointed out that lack of skilled personnel, inadequate fund and electricity are some of the problems that affect the effective use of teaching aids. In another similar study, Okpala (2012) holds the view that high cost of PowerPoint, computer, video set and television constitute problems to an effective use of audio-visual aids in secondary schools. The finding however disagreed with the finding of Omariba (2022) that found the use of Overhead Projector, computer power point in teaching and learning as challenges but collaborates George and Ige (2022) findings which did not consider inadequate Knowledge and skills in using AV for instructional purposes as hindrance to use of instructional resources in the Nigeria Universities. It is also noted from the finding that lack of National Policy on Information Communication infrastructure, inadequate funding and lack of accessibility to audio visual resources were the most significant constraints indicated by the pre-service teachers. This is followed by lack of enabling environment, improper maintenance and management of audio visual resources, unstable power supply and inadequate infrastructure to support the use of audio visual resources indicated as prominent hindrance to the use of the resources. It is worthy to note that this finding corroborate previous studies conducted in Nigeria since the 80s and 90s which identified challenges to the effective use of audio-visual in Nigerian university to include inadequate funding (Ibegwam, 1995), total neglect of libraries in government policies (Obaka, 1991), lack of infrastructural facilities, especially, the supply of uninterrupted electricity (Woakes, 1986), inadequate training of the user to maximize the use of the library (Ogunleye, 1987 and Kaniki, 1994), high production cost of instructional media (Mabawonku, 1992), lack of maintenance of faulty equipment (Anaba, 1994) difficulty in locating material in the catalogue by clientele (Hodson, 1979), reluctance to change (Odinni, 1990), and others calling for "restructuring" (Adio, 2007, Ibegbulam and Olorunsola, 2001). Implicitly, virtually all the constraints identified then such as lack of adequate funding to purchase audio visual facilities for teaching, irregular power supply and inadequate facilities to support teaching amongst others still remain unresolved to date, hence the conclusion and recommendation to the study.

Furthermore, finding on the hypothesis raised shows that the calculated Chi-square of 233.13 is significantly greater than the table value of 16.92 at 0.05 level of significance and degree of freedom of 9. Therefore, the null hypothesis was rejected. This finding is in agreement with the study conducted by Omariba (2022) which noted that when audio-visual resources are available and effectively used in the teaching and learning process, they heighten motivation for learning which make the lesson to become emotionally stimulating as well as intellectually rewarding, provide students with experiences that are fresh exhilarating, delightfully new, varied and appeal to students of varied abilities, making a truly blended environment. The finding also corroborates Coleman, Gibson, Cotten, Howell-Moroney and Stringer' (2016) study which contend that the appropriate use of ICT tools in teaching had transformed the learning environment from teacher-centered to learner-centered. It also agrees with Prem (2018) finding which reported that ICT helps students to learn more effectively promotes active and engaging lesson for students' best learning experience helps to broaden student's knowledge paradigm. The finding also corroborates with those of George and Ige' (2022) study which reported that using instructional devices to engage students will afford them the opportunity to have better understanding of the expected behaviour, thereby help in bringing effectiveness to teaching learning process.

CONCLUSION

In conclusion, finding of the study revealed that it is essential to use audio visual resources for effective teaching learning process. Pre-service teachers found audio visual resources useful and an easy avenue to accomplish learning

outcome but this could not be fully realized due to inadequacy of the resources. The use of audio visual resources makes the lesson easy and effective, provides students with fresh experiences and heightens motivation for learning which make the lesson to become emotionally stimulating as well as intellectually rewarding. The study established further that the inadequacy of the resources led to its limited use, which in turn affected the learning outcome and perceptions of the pre-service teachers on the use of audio visual resources.

RECOMMENDATIONS

The following recommendation were made based on the study findings:

1. Government should promulgate Policy on Information Communication Infrastructure that will provide enabling environment to the use of audio visual resources in the tertiary institutions of learning
2. Teachers should be instructed and motivated to use audio visual resources during teaching.
3. Adequate and alternative power supply should be provided to facilitate smooth use of audio visual resources
4. TETFUND through the management should provide adequate fund to the institutions for purchasing adequate audio-visual resources.

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