LECTURERS' ACCESS AND USABILITY OF DIGITAL VISUAL INSTRUCTIONAL RESOURCES AMONG COLLEGES OF EDUCATION IN KWARA STATE

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Abstract

The paper was carried out to investigate into lecturers' access and usability of digital visual instructional resources among Colleges of Education in Kwara State. A descriptive research design of survey type was adopted for the study. A sample population of one hundred and fifty lecturers was randomly selected across five colleges of education in Kwara State. The objective of the study was to investigate lecturers' access and usability of digital visual instructional resources and therefore, a well structure questionnaire was adopted to elicit relevant data from the sampled lecturers and data collected was subject to both descriptive and inferential statistics. Findings from the study revealed that, most available digital visual instructional resources were not utilized appropriately; also, there was a significant difference in lecturer's access and usability of digital visual instructional resources in colleges of education in Kwara State on basis of school type. Based on the findings, it was recommended among others that government at various levels should ensure adequate provision of Information Communication and Technology (ICT) tools in colleges of education and indeed, colleges of education lecturers should be well motivated and encourage to use ICT tools in their teaching.

Keywords: Access, Usability, Digital, Visual Instructional Resources

Introduction

The education policy makers endeavour to integrate ICT in teaching and learning at all levels to assist the improvements of the quality of education delivery system and provide support to alternative electronic stand alone or distance education systems, thereby increasing access to education. The ICT policy indicates that in the sphere of education, ICTs have the potential to improve the quality of education. Its vision is to have 'information and communication technology that will contribute towards achieving the objective of providing innovative and productive life long education and training accessible to all by 2030. Consequently, the goal for education is to integrate digital visual instructional resources as an aspect of ICT in the education system.

In line with the policy direction, there are initiatives and projects currently running. They include, 'Computer for Nigerian Schools,' a registered trust established by the local educational and ICT specialists, representatives from the ministry of education, the education

policy makers and school community in Nigeria, an initiative that promotes access to satellite television and video in schools. The integrated use of ICT in subject curricula and classroom teaching and management, is a complex process, which is usually achieved by following a set of guiding parameters. There are two complementary activities; the first focuses on the theories and principles that underpin ICT integration in education and the second is lecturers' computer-assisted practice in the use of ICT with support web-based portals. Adeyemo (2018) has further argued that method of teaching has gone beyond traditional methods and this makes the integration of information technologies very important in science class. Information technology has broken the monopoly, and provided varieties in teaching–learning situation in primary schools. This means that information technology should be properly rooted in the school curriculum so that the level of literacy will be increased with regard to the use of information technology in teaching and learning.

The lecturer alone cannot provide all the needed condition for an effective teaching and learning process, other supporting materials should be provided. The students learn better with the use of appropriate instructional materials. The use of digital visual resources in teaching and learning in colleges has added a new dimension in the positive promotion of the teaching and learning process. It provides the much need sensory experiences needed by the learners for an effective and meaningful behavioural change. The use of digital visual resources are meant to improve the quality of education for effective academic performance of students in schools. The performance of the students on the intended learning outcome provide the validation – loop on the success of the interaction and instruction (Bakare, 2020).

Aina (2021) said many of the equipment used in teaching across colleges of education can be improvised that is why lecturer should endeavour to utilize the use of discarded resources around them to improvised teaching aids for effective and productive teaching and learning process. ICT tools also helps lecturer to meet individual differences of the learners in the class especially when aids that appeal to different senses are used (Morohunfola, 2018). digital visual instructional resources are used to supplement verbal explanation of concepts or any description so that the lesson could be real to the students. These ICT tools are categorised into functional internet connectivity tools which support qualitative and quantitative teaching and learning process. These are tools that appeal to students' sight and hearing. These can be electronically operated materials and various internet connectivity platform like power point presentation, webcam, website, Linkedln, google and twitter.

Awanbor (2016) reported that lecturer had a negative attitude towards teaching and those lecturer trainees who had positive attitude towards teaching did so with strong reservation which range from the poor social image to the teaching profession, the comparatively poor financial remuneration for the lecturer, to the general lack of encouragement by educational authorities. The attitude of lecturers comes to the fore as they reflect upon the language and the strategies that they use in teaching. Nigeria recognizes the pivotal roles of digital visual instructional resources in the revitalization and development of the country's education system. Lecturers perceive ICT as very useful and using computers makes teaching and learning easier. ICT integration in the Nigerian School system came with the 2011 National Policy on Information Technology tagged "Use IT."

Lecturer characteristics such as age and gender influence integration of ICT in teaching. Ruthven (2016) found that young lecturers use ICTs more compared to the older lecturers who are afraid to use computers as they feel intimidated by the new technologies. According to Farrel (2017), proper training of lecturers on how to implement ICT offers crucial advice on selection, integration and evaluation of computer tools to support teaching and learning. Attitude of lecturers such as computer avoidance, anxiety, self-efficacy, enthusiasm and confidence hinders the process of integration of ICT in teaching (Ertmer, 2019). If lecturers have positive attitudes towards the use of technology then they can easily provide useful insight about integration of ICT in teaching and learning process. The lecturers' workload also influences integration of ICT in teaching and learning process in the sense that when a lecturer has many lessons per week, there will be no free lessons to prepare for ICT related content (Abuhmaid, 2016).

Statement of the Problem

Despite the wide recognition and acceptance accorded on ICT utilization in teaching and learning at the in schools, there seems to be problems in the utilization of ICT in teaching and learning. There is need to sensitise lecturers to effectively utilize ICT facilities in teaching and learning process also make government committed in providing the necessary environment for ICT instruction schools remains daunting. The overall expectation is that lecturers participation by eliciting their perceptions on the factors affecting effective utilization of digital visual instructional facilities in teaching process would reawaken them to be more committed to the use of digital visual instructional resources in teaching and learning as well as making them serve as agents in the spread of the effective use of digital visual instructional resources for teaching in school.

The literature has reported that inspite of Nigeria rich instructional resources endowment; there has been a gradual decline in students' interest in education (Manyong, 2015). There is non-chalant attitude among some lecturers to make use of information communication and technology facilities to supplement their conventional method of teaching in classroom instruction. This to large extent affects the expected performance of learners, inspite of the emphasis being placed on education important in shaping the career or education aspiration of learners.

Studies revealed that most lecturers have strong interest to finished the prescribed school syllabus before the external examination. Hence, the prosecution of a functional education in relation to education still leaves much to be desired. In view of these difficulties, most lecturers in schools still resort to the theoretical method of teaching the subject. It was also observed that gender, qualification and the years of teaching experience of a lecturer play significant role in their utilization pattern as regard information and communication technology facilities to the teaching approach (Adeyemo 2018 & Adeyemi, 2019). This undoubtedly, is contrary to the improvement of education, which is greatly needed at this period of our development with emphasis on practical oriented learning. Thus, the need for the present study as the paper seeks lecturers' access and usability of digital visual instructional resources among colleges of education in Kwara State.

Concept of Digital Visual Instructional Resources

Visual aids are those instructional resources which are used in the classroom to encourage teaching learning process. As Singh (2015) defines: "Any device which by sight and sound increases the individual s' practice, outside that attained through read labeled as an audio visual aids". Visual aids are those instructional devices which are used in the classroom to encourage learning and make it easier and motivating. The material like models, charts, film strip, projectors, radio, television, maps etc called instructional aids. (Rather, 2017).

Digital visual aids arouse the interest of learners and help the teachers to explain the concepts easily. Visual aids are effective tool that "invest the past with an air of actuality." Visual aids distribute the learners with true knowledge, which detention their devotion and help in the understanding of the ancient marvels. They demand to the mind through the visual auditory senses. When visual aids is use as teaching aid it is one of the aspects which root participation of students in the lesson because when students look at visual model or aid, it is measured as a kind of contribution.

Visual aids are devices present unit of knowledge through auditory of visual stimuli both with a view to aid learning. They concretize the information to be obtainable and help in making learning practice apple real, active and vital. They supplement the work of the teacher and help in the research of the text books. The great educationist Comenius has well said: The foundation of all learning consists in representing clearly to the senses and sensible objects so they can be appreciated easily (Singh, 2015), (Agun, 2019) Examples of learning resources include visual aids, audio aids, real objects and many others. Visual aids are designated materials that may be locally made or commercially produced. They come in form of, for illustration, wall charts, exemplified pictures, symbolic materials and other two dimensional items. There are also audio visual aids. These are teaching machines like television, radio, and all kinds of projectors with sound attributes .Television and radio programs provide another useful learning resource. Films, likewise, are a general teaching/learning resource. In addition to helping students remember important information, teaching/learning resources have other returns.

When accurately used they aid achievement and hold the attention of students. Visual aids can be very useful in supportive of a topic, and the amalgamation of both visual and audio stimuli is particularly effective since the two most important senses are involved (Burrow, 2019). Teachers should keep in mind that they are like salesmen of philosophies, and many of the best sales practices that attract attention of potential clients are well worth considering. Clear, a major goal of all teaching is for the students to be able to retain as much knowledge of the topic as possible, particularly the main points. Frequent studies have attempted to determine how well learning resources serve this purpose. Indicate from the studies vary greatly from modest results which show 10-15 percent increase in retention to more optimistic results in which retention is increased by as much as 80 percent (Burrow, 2019). Good learning resources can help solve certain language barrier problem as they provide accurate visual image and make learning easier for the student (Chacko, 2019). Another use of learning resources is to clarify the relationship between material objects and concepts to understand. Symbols, graphs, and diagrams can also show associations of location, time, size, value and frequency. By symbolizing the factors tangled, it is even possible visualize abstract relationship. According to Ranasinghe and Leisher (2020), integrating technology into the classroom begins when a teacher prepare lessons that use technology in meaningful and relevant ways. Technological aids should support the curriculum rather than dominate it. Ranasinghe and Leisher say that technology should assist

the teacher in creating a collaborative learning environment. Koc (2015) says that the integration of technology into curriculum means using it as a tool to teach academic subjects and to promote higher-order thinking skills of the students.

Importance of Digital Visual Materials in Teaching and Learning Process

Education is necessary for everybody. Education is very vital, deprived of education which can lead a good life. Teaching and learning are the important element in education. The teacher use different approaches to teach their students and bring about their active learning. With the passage of time, altered methods and techniques are entered in the field of education and teacher use different kind of aids to make effective learning. Visual aids arouse the interest of learners and help the teachers to explain the concepts easily. Visual aids are those instructional aids which are used in the classroom to encourage students learning process. According to Burton "Visual aids are those sensory objects or images which initiate or stimulate and support learning". Kinder, S. James; describe visual aids as "Visual aids are any devices which can be used to make the learning experience more real, more accurate and more active".

Visual aids are tools that help to make an issue or lesson clearer or easier to understand and know (pictures, models, charts, maps, videos, slides, real objects etc.). There are many visual aids available these days. We may classify these aids as follows, visual aids are which use sense of vision are called Visual aids. For example:- models, actual objects, charts, pictures, maps, flannel board, flash cards, bulletin board, chalkboard, slides, overhead projector etc. Out of these black board and chalk are the commonest ones. The challenges of classroom instruction increases when prescribed a course to the class while course books (textbooks) are constituted with too many interactive expertise activities. Most significantly, it has convert a common phenomenon to integrate textbooks with audio visual aids as additional or supplementary resource for classroom course learning activities.

Digital visual aids are important in educational system. Visual aids are those devices which are used in classrooms to encourage students learning process and make it easier and interesting. Visual aids are the best tool for making teaching effective and the best dissemination of knowledge. Research of Cuban (2016) indicated the psychology of visual aids as under, 1% of what is learned is from the sense of TASTE, 1.5% of what is learned is from the sense of TOUCH, 3.5% of what is learned is from the logic of SMELL, 11% of what is educated is from the logic of HEARING and 83% of what is learned is from the sense of SIGHT. Also people generally remember, 10% of what they READ, 20% of what they

HEAR, 30% of what they SEE, 50% of what they HEAR and SEE, 70% of what they SAY and 90% of what they SAY as they DO a thing. So there is no doubt that technical devices have greater impact and dynamic informative system.

Digital visual aids are the devices that help the teacher to clarify, establish, and correlate and co-ordinate precise conceptions, understandings and appreciations and support him to make learning more actual, active, motivating, encouraging, significant and glowing. The following are the importance of digital visual aid in classroom instruction,

- i. Every individual has the tendency to forget. Proper use of visual aids helps to retain more concepts permanently.
- ii. Students can study well when they are inspired properly through different visual aids.
- iii. Visual aids grow the accurate image when the students see and hear properly.
- iv. Visual aids provide complete example for conceptual thinking.
- v. Visual aids create the environment of interest for the students.
- vi. Visual aids helps to increase the vocabulary of the students.
- vii. Visual aids helps the teacher to get sometime and make learning permanent.
- viii. Visual aids provide direct experience to the students.

Influence of Digital Visual Instructional Resources in Teaching and Learning in Schools

Adeyegbe and Ayo (2016) identified the ICT gadgets and facilities as radio, television, compact discs, satellites, e-mail, internet, overhead projector, micro projector, video machines, computers, camera, etc. Achimugu (2015) expatiating on this list, included telephone, Global System for Mobile Communication (GSM), facsimile (fax) and telex machine. Contributing to this, Ugwu, (2016) identified the following additional facilities: electronic bulletin Board, teleconferencing, teleprocessing, database, internet optical fibre, white board, etc. The researcher concludes that these selected IT gadgets/facilities facilitate effective teaching and learning when use appropriately for teaching in schools. Television is an audio visual medium and popular electronic mass media of instruction. Television can be used in teaching in schools by watching television programmes like quizzes, puzzles, games, debates, etc, in relation to in schools as a subject. Video Machine: This is a type of machine that is used to project motion picture and the pictures are fashioned for continuous projection at a particular speed. There are different types such as video tape machine, digital video discs (DVD), video compact discs (VCD), etc. It can be recorded in tape or disks. Video is a good IT facility that can be used for teaching in schools. For instance, one can use slim video tools

which contains video lecture, video – simulation, interactive simulation, task review, etc to effectively teach in schools.

Digital Camera is also used to capture picture and it can be used to teach in schools most especially during the schools educational tours such as field trip. Pictures snapped during a field trip or excursion can be reported back to other pupils who were unable to attend the field trip or excursion (Eze, 2017). Projector is a device that allows images to be focused on the screen. It can be overhead projector, micro projector, film projector, etc. A in schools lecturer can prepare his or her own slide on different topics or can buy commercially prepared slides and systematically use the slides in teaching the pupils using any of the available projectors. Telephone: This is a telecommunication device that is used to send and receive audio (sound) signals across distances. Telephones can be used to ask presenters questions for better understanding of in schools concepts during a television or radio programmes (Eze, 2017).

Global System for mobile communication (GSM) is a modern portable telephone that connects to a cellular based station used for personal communication over short or long distance. Apart from the traditional role of sending and receiving calls, it has advantages over telephone as it provides other services such as text messages (SMS), E-mail, internet facilities and SMS facility for sending and receiving photos and videos. It can be used to teach in schools in many ways. Computer: This is a modern machine that can be programmed to automatically perform various operations. Information can be created, stored and transmitted through the computer. Computer can be put to use in various ways in teaching and learning in schools. For instance, information accessed through browsing such as lesson notes, data, diagrams, images, animation, etc (Eze, 2017).

Internet is a global collection of computers linked to each other, sharing available resources and communicating effectively. Internet connectivity provides audio and video information which facilitates in schools classroom lessons. For instance, in schools class teaching, individualized instruction, etc can be downloaded through internet browsing, which can be printed out or saved on computer or copied to CD for later usage in presenting a given topic in an interesting way to the pupils. E– Mail Address also known as electronic mail is a means of carrying out a computer based communication in which an electronic letter is sent to one or more recipients via the help of the internet. This also can be used in teaching in schools in different ways. For instance, through social network and online charts, in schools

lecturers can reach and interact with their pupils in teaching which can help to remove the abstractness of some concepts (Eze, 2017).

The use of digital visual instructional resources in teaching and learning has brought into the system, new and emerging technologies that have come to challenge the traditional methods involved in the teaching and learning processes, while contributing to the importance of digital visual instructional resources. Igboegwu, Egolum and Nnoli (2016) point out that digital visual instructional resources have impacted on quality and quantity of teaching, learning and research education and provides opportunity for pupils and lecturers to communicate with one another more effectively. Brekke and Hogstad (2017) opine that those preparing to become lecturers must incorporate technology into the class and that the use of digital visual instructional resources in schools is to increase the effectiveness of teaching and learning.

Some of the obvious importance of integrating digital visual instructional resources to colleges of education programme includes the following:

- i. Digital visual instructional resources increase the scope, knowledge and interaction of in schools lecturers, thereby making the task of the lecturer simpler.
- ii. Digital visual instructional resources help lecturers to gain access to current resources and standards.
- iii. Digital visual instructional resources eliminate the requirements for handling large classrooms and laboratories.
- iv. Digital visual instructional resources improve lecturer's effectiveness by exposing the lecturers to knowledge beyond his/her immediate environment.
- v. Digital visual instructional resources help pupils to learn with ease and to retain what they taught for a long period of time.
- vi. Digital visual instructional resources improves pupils to participate in classroom activities
- vii. Digital visual instructional resources enables pupils exchange ideas with their lecturers in and outside the classrooms.
- viii. Digital visual instructional resources promotes individualized learning

Lecturers' Demographics and Integration of Digital Visual Instructional Resources

According to Bradley (2018), inadequate funds of schools, lack of parent and community support, and insufficient salaries are examples of those factors. Marchant (2017)

added the role of experience to the factors influencing lecturers' attitudes for their profession. Dodeen, (2018) found that female lecturers have more positive attitude than male lecturers. The attitude and expectation of society in general and of the family of the learner in particular affect how learning is viewed and how teaching is organised. These attitudes and expectations vary from society to society and attempting to copy learning and teaching strategy from one society into another, without trying to adapt into the local conditions may not be successful (Derebssa 2016). Studies have pointed out that lecturer's negative personal and professional behaviour and poor social image of the lecturer and teaching profession are serious factors responsible for lecturer's low status.

Albrini, (2016) stressed that lecturer trainees had a negative attitude towards teaching and those lecturer trainees who had positive attitude towards teaching did so with strong reservation which range from the poor social image to the teaching profession, the comparatively poor financial remuneration for the lecturer, to the general lack of encouragement by educational authorities. The attitude of lecturers comes to the fore as they reflect upon the language that they use in teaching.

One of the factors that determine educational development and innovation in general is lecturers as they are the ones to use the digital visual instructional resources investments for educational development. Technology does not have an educational value in itself. It becomes important when lecturers use it in learning-teaching process. Although there are some who claim that the presence of technology in the classroom creates a pressure and requires effective use (Kozma, 2018), research results show that these are also related to lecturers' attitudes and levels of knowledge (Pelgrum, 2018; Garland & Papagianni, 2018). Lecturers' positive views towards ICT applications or denying them all together are affect by their attitudes as well as other important factors such as their information about and experience with ICT (Hong & Koh, 2019) their experiences on how to use these technologies in classroom environment (Keong, Horani & Daniel, 2019), information and experiences concerning the types of applications based on ICT, age (Hartley & Bendixen, 2016), and self-confidence (Ertmer, 2016). McKenzie (2018) and Stallard (2018) argue that the main problem in lecturers' decision to use or not to use digital visual instructional resources concerns their attitudes.

Objective of the Study

The main objective of this study is to find out lecturers' access and usability of digital visual instructional resources among Colleges of Education in Kwara State.

Specifically, the study will;

- a) examine the extent to which digital visual instructional resources are available in Colleges of Education in Kwara State.
- b) examine lecturers access to digital visual instructional resources in Colleges of Education in Kwara State.
- c) find out the significant differences in lecturers' access and usability of digital visual instructional resources in Colleges of Education in Kwara State on the basis of school types.

Research Questions

The following questions will be answered in the course of this research;

- 1. What are the available digital visual instructional resources in Colleges of Education in Kwara State.
- 2. Does lecturers have access to digital visual instructional resources in Colleges of Education in Kwara State.?
- 3. What are the lecturers' access and usability of digital visual instructional resources in Colleges of Education in Kwara State on the basis of school type?

Hypothesis

This hypothesis guided the conduct of this paper;

Ho₁: There is no significant different in lecturer access and usability of digital visual instructional resources in Colleges of Education in Kwara State on the basis of school type.

Methodology

The study used a descriptive survey research design. This is because information is sort from groups of people (lecturers). A descriptive survey research design according to Nworgu (2016) is one in which a group of people or items are studied by collecting and analyzing data in a systematic manner from only a few people or items considered to be the representative of the entire group. The target population for this study consists of the entire lecturer and students in both private and public Colleges of Education in Kwara State.

One hundred and fifty (150) respondents were randomly selected across five (5) colleges of education in Kwara State. These include two (2) private and three (3) government owned (public) colleges of education. The respondents would give proper insight into lecturers' access and usability of digital visual instructional resources among Colleges of Education in Kwara State. Data collected will be subjected to descriptive statistics of mean

and standard deviation and the hypothesis was tested using t-test statistics and Analysis of Variance (ANOVA).

Results and Interpretation

Data Analysis Table 1: Distribution of the Responders Based on School Type					
School Type	Frequency	Percentage			
Public	90	60.7			
Private	60	39.3			
Total	150	100.0			

Table 1 shows the distribution of responders based on school type. 60 of the respondents representing 39.3% were selected from public colleges of education while 90 of them which represent 60.7% were selected from private colleges of education.

What are the available digital visual instructional resources in colleges of education in Kwara State?

S/N	Availability	Available	Not Available
1.	Computer system	150 (100%)	0 (0%)
2	Visual display board	150 (100%)	0 (0%)
3.	Multimedia system	150 (100%)	0 (0%)
4.	Modems /internet	150 (100%)	0 (0%)
5.	Scanner	150 (100%)	0 (0%)
6.	Printer	150 (100%)	0 (0%)
7.	Photocopier	150 (100%)	0 (0%)
8.	Video equipment/machine	0 (0%)	150 (100%)
9.	Digital microscope/multi-media camera	0 (0%)	150 (100%)
10.	Projector	0 (0%)	150 (100%)
11.	Game simulation	0(0%)	150 (100%)
12.	Electronic bulletin board	0 (0%)	150 (100%)

Table 2: Frequency of the available digital visual instructional resources in primary schools in Ilorin west local government

Table 2 shows the available digital visual instructional resources in colleges of education in Kwara State. The result revealed that the following materials are available; Visual displayed board, Multimedia system, Modems /internet, Scanner, Printer, Photocopier, while the following materials are not available; Video equipment/machine, Digital microscope/multimedia camera, Projector, Game simulation, Electronic bulletin board.

What are the attitude of teaches towards the use of digital visual instructional resources in colleges of education Kwara State.

S/N	Lecturer's Access	SA	Α	D	SD	Mean
1	Digital visual instructional resources tools are difficult to use	28 (17.8)	41 (26.1)	73 (46.5)	15 (9.6)	2.52
2	I feel comfortable using the computer	29 (17.8)	(26.1) 41 (26.1)	73(46.5)	15 (9.6)	2.60
3	I believe that I could be a better lecturer with digital visual instructional resources tools	14 (8.7)	40 (25.5)	65 (41.4)	38(24.2)	2.19
4	I don't think I can use the digital visual instructional resources tools in my teaching	23 (14.6)	30 (19.1)	47 (29.9)	57 (36.3)	2.12
5	Students performance can improve if I use digital visual instructional resources tools	14(8.9)	17 (10.8)	65 (41.4)	61(38.9)	1.89
6	I think that teaching would be enjoyable and stimulating if I use digital visual instructional resources tools	1 (.6)	23(14.6)	61(38.9)	72(45.9)	1.70
7	Digital visual instructional resources tools are very relevant in teaching	0(0)	24(15.3)	60(38.2)	73(46.5)	1.68
8	I encourage my students to use digital visual instructional resources tools	36(22.9)	44(28.0)	55(35.0)	22(14.0)	1.63
9	I do not feel threatened with the use of digital visual instructional resources tools	10 (6.4)	35(22.3)	51(32.9)	61(38.9)	1.96
10	Use of digital visual instructional resources in the class is very frustrating	10 (6.4)	7(4.5)	66(42.0)	67(44.7)	1.73
	Weighted mean	2.00				

Table 3: Frequency of the of lecturers access to digital visual instructional resources in colleges of education in Ilorin Kwara State.

Table 3 shows lecturers' access of digital visual instructional resources in colleges of education in Kwara State. The weighted mean is 2.00 which is an indicator that lecturers' access towards the use of digital visual instructional resources was on negative side which implies that majority of lecturers sample were not using these materials that majority of lecturers sample were not using these materials that majority of lecturers is limited by some factor.

HO₁: There is no significant difference in lecturer's access and usability of digital visual instructional resources in colleges of education in Kwara State on basis of school type.

Table 5: Summary of t-test Analysis on the significant difference in lecturer's access and usability of digital visual instructional resources in colleges of education in Kwara State on basis of school type.

School Type	Ν	Mean	Std. Deviation	Т	Df	Sig.	Remark
Private	75	32.0000	.00000	1.612	198	.001	Significant
Public	75	31.8866	.68258				

Table 5 shows there is no significant difference in lecturer's access and usability of digital visual instructional resources in colleges of education in Kwara State on basis of school type. The finding revealed that there was a significant difference in lecturer's access and usability of digital visual instructional resources in colleges of education in Kwara State on the basis on school type (t = 1.612; df = 198; P <0.05). This implies that private (Mean= 32.00) is significantly different from that of public (Mean= 31.8866).

Discussion

It was revealed from the several observations that sampled lecturers has limited access to digital visual instructional resources as most of the said materials were not readily accessible and the least available one were not utilized for the purpose of instructional delivery. The findings shows a significant difference in the lecturers' access and usability of digital visual instructional resources on the basis of school types. This implies that lecturers from the public (government colleges of education were differ to their counterpart from the private colleges in their responses as regard) the accessibility and usability of these resources. **Conclusions**

This study has revealed that digital visual instructional resources tools are not available in reasonable number in majority of the sampled colleges in Kwara State schools and that the available ones are not being utilized properly by lecturers, despite the impact of ICT infrastructure on education. The study however, concludes that information and communication technology facilities were not readily available in most of the sampled schools and the available ones were not utilized effectively to enhance teaching and learning as a result of lecturers negative attitude.

Also, school types influence lecturer's access and usability on available information and communication technology facilities (digital visual instructional resources) in teaching and learning in primary schools.

Recommendations

On the basis of the findings of this study, the following recommendations are put forward:

- 1. Lecturer should be creative enough to improvise simple teaching and learning materials to spice-up their teaching.
- Curriculum planners should continually organize workshops conferences or seminar for lecturers on new and improved method of effectively using digital visual instructional resources.
- 3. Government at various levels should ensure adequate provision of Information Communication and Technology (ICT) tools in the colleges of education and indeed, at the other levels of education to support teaching and learning.
- 4. Lecturer should be trained accordingly on the handling procedure and efficient utilization of available ICT tools to complement teaching. Lecturers should be more committed to their teaching job by utilizing the available digital visual instructional resources tools/facilities in teaching appropriately.

REFERENCES

- Achmogu S., (2015). Closing the Digital Divide: Evaluation of the World Links Program. International Journal of Educational Development, 24(4), 361-381.
- Adeyebe, D. & Ayo, S.R. (2016). 'Perceived usefulness, Perceived Ease of Use, and User Acceptance of information Technology.' *MIS Quarterly*. 13(13): 319-340
- Adeyemo, I. (2018). Integrating ICT into College English: An implementation study of a national reform. *Education and Information Technologies* 17, 2 (June 2012), 147-165.
- Agommoh, C. M. (2019). 'Integrating Technology in Teaching and Teacher Education: Implication for Policy and Curriculum Reform.' *Educational Media International*. 38 (2/3): 127-132. 72
- Albrini, A. (2019). 'Lecturers Attitudes towards Information and Communication Technology: The Case of Syria EFL Lecturers.' Computer and Education. 47 (4): 373-398.
- Ayas, C. (2016). 'An Examination of the Relationship between the Integration of Technology into Social Studies and Constructivist Pedagogies.' *The Turkish online Journal of Education*. 5 (1): 14-25.
- Bakar, T. (2013). Conditions for Classroom Technology Innovations. Lecturers College Records 104(2) 482-515
- Ball, D. L. (2019). 'The Mathematical Understandings that Prospective Teacher bring to Teacher Education.' *The Elementary School Journal*. 90 (4): 449-466.
- Brandley, D, (2018) Predicting Teacher's Computer Use for Own Needs, Teaching and Student Learning. Paper Presented at Hawaii International Conference on Education.
- Brekke, S., & Hogstad, D., (2012). 'An Investigation of Appropriate new Technologies to Support Interactive Teaching in Zambian Schools.' *Itupale Online Journal of African Studies*. 2 (1): 39-54.
- Calcham, L. and Clark, A.I. (2018). Integration of Information and Communication Technologies (ICTs) in the Teaching Process in Selected colleges of Education in Zambia. Masters Dissertation School of Education-Department of Education Administration and Policy Studies. University of Zambia
- Eze, B. A. (2017). 'Understanding the Importance, Impacts and Barriers of ICT on Teaching and Learning in East African Countries.' *International Journal for e-Learning Security*. 2 (3/4): 199-207
- Garland, Y.R. & Papagianni, A.S. (2018). 'The Role of digital visual instructional resources in Education: Review Article with Emphasis to the Computer and Internet.' *Journal of Education & Science*. 6 (2): 1-16.
- Gelderman, S. (2018). "Teacher Professional Development in the Use of Technology" [Online]. Available at: <u>http://www.ictinedtoolkit.org/usere</u>

- Gunge, E.V. (2010). 'ICT Strategies and Tools for the Improvement of Instructional Supervision. The Virtual Supervision.' *The Online Journal of Education Technology*. 13(1): 77-87.
- Hong, A.N., & Kah, D. O. (2019). The Creation and Development of Educational Computer Technology. In R.M. Thomas and V.N. Kobayashi (ed.) *Educational Technology: Its Creation, Development and Cross-Cultural Transfer*. Oxford: Pergamon Press.
- Igboegwu, S., Egulum, D., and Nnoli L. (2016). 'Lecturers Factor Influencing Classroom use of digital visual instructional resources in Sub –Saharan African .' *Itupale Online Journal of African Studies*. 2 (1): 39-54.
- Jonassen, D. H. (2015). Computers as Mind Tools for Schools: Engaging Critical Thinking. Columbus: Merrill Prentice-Hall.
- Kag, S. I.; Wozeck, A. J. et'al (2016) Integration of ICT in secondary School curriculum in Nigeria: Problems and prospects. 49 Annual STAN conference proceeding on curriculum Development in Science, Technology and Mathematics (STM) Education, 207-211. Yenagoa: HEBN Publishers.
- Kechukwu, B. T. (2011). 'A Study on Science Teachers' Attitudes Towards Information and Communication Technologies in Education.' Online Journal of Education Technology. 8 (2): 20- 32.
- Keong, A., Horani, S. B. & Daniel, W. E. (2005), Parents' perspectives on technology and children's learning in the home: social class and the role of the habitus. Journal of Computer Assisted Learning, 27: 347–360.
- Kozma, A. A. (2018). "Integrating ICT into STM classrooms: Status and implications", 44th Annual Conference Proceedings of Science Lecturers' Association of Nigeria, 58 – 60.
- Lobosco, C. R & Newman, C. S (2017). Assessment of Science Teachers Pedagogical Beliefs and information and communication Technology (ICT) classroom practices in secondary schools in Enugu State of Nigeria. *Journal of the Science Teachers Association of Nigeria (JSTAN), 50*(1), 24-33.
- Mckenzie, K. (2018). Research Methods in Education. London: Taylor and Frances Group.
- Morohunfola, D. H., (2018). Learning with technology: A constructivist perspective. Upper Saddle River, NJ: Merrill.
- National Teacher Institute (2016). *Manual for the Retraining of primary school lecturers on improvisation of instructional materials*. Kaduna: NTI Press.
- Ndume, R.A. (2008). Knowledge and Attitude of Chemistry Teachers to Information and Communication Technology and the Way Forward for Effective Teaching proceeding of 52nd *Annual Conference STAN* 261 269.
- Ogunsola, L. A. (2017). Digital visual instructional resources and the effects of globalization: Twenty-first century "digital slavery" for developing countries- Myth or Reality? Electronic Journal Academic and Special Librarianship. 6(1-2) 10.

- Okoje, C. (2018). Using the Internet in Education Strengths and Weaknesses: A Qualitative Study of Teacher's Opinions on the Use of the Internet in planning and Instruction. www.diva-portal.org Accessed 23/01/2018.
- Okoye, P. O. (2017). "Optimising E-learning opportunities for effective education service delivery: Implication for Basic Science Curriculum implementation in Anambra State", Nigeria Journal of professional Teachers, 3, 150 – 160
- Pelgrum, W.J. (2018). 'Obstacles to the Integration of ICT in Education: Results from a Worldwide Educational Assessment .' *Computers and Education*. 37 (2): 163-178.
- Ranasinghe, Y., & Leisher, G. (2020). 'Lecturer-Student role Redefinition during a Computer-Based Second Language Project: Are Computers Catalysts for Empowering Change?' Computer Assisted Language Learning. 15 (3): 295-315.
- Selwyn, N. (2019). 'Student's Attitudes towards Computer: Validation of a Computer Attitude Scale for 16-19 Education'. *Computer and Education* 28 (1): 35 41.
- Shavinina, A. C. (2001). 'Planning for Technology Integration: Is the It Agenda Overrated or Underappreciated?' *Educational Planning*. 17 (1): 1-17
- Ugwanyi, M. (2021). 'Framing Constructivism in Practice as the Negotiation of Dilemmas: An Analysis of the Conceptual, Pedagogical, Cultural, and Political Challenges Facing Teachers.' *Review of Educational Research*. 72 (2): 131-175.
- Ugwu. J, (2018). The role and design of Baseline studies in the Evaluation of English Language Training in the case of Nepal. Evaluation report Retrieved on 16/03/2015 from www.gov.uk/.../the-role-and-design
- Volman, N. & Van, Eek, (2017). iSchool: Transformative Learning in Zambia Classroom. www.api.ning.com. Accessed 14/01/2017