AVAILABILITY AND USE OF *e*-RESOURCES AND AUDIO VISUAL MATERIALS FOR ONLINE LEARNING TOOLS IN FEDERAL UNIVERSITY OF TECHNOLOGY, AKURE, NIGERIA.

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Abstract - This study was carried out in Federal University of Technology, Akure, Nigeria to verify the level of availability of electronic resources (*e*-resources) and audio visual materials for online learning tools and to find out the Lecturers and Students readiness in the use of it. Three research questions and two hypotheses were analysed for the study. Descriptive survey research design was adopted for the study. A sample 150 respondents participated in the study, consisting of one hundred and twenty (120) students and thirty (30) Lecturers from six (6) Schools of the University. Two questionnaires were used, one designed for Lecturers and the other for Students with reliability co-efficient of 0.85 and 0.82 respectively. Data collected were analysed using simple percentage and Chi-square statistical tools. Findings from the study revealed that *e*-resources and audio visual materials for online learning tools are available at Federal University of Technology, Akure but the practice has not begun. Lecturers and Students are ready to use the interactive multimedia method of instruction as soon as the University Administration introduces it. In the light of the findings and conclusions, several recommendations for improvement were advanced; among them are adequate provision of computer equipment and accessories, involvement of implementers in planning stage as well as introduction of online instructional method in all sphere of Nigeria system of education and curriculum.

Keywords: *e*-resources; audio visual materials; online tools; learning, availability and use.

I. INTRODUCTION

Recent advances in science and technology have changed the structured and the education systems of societies. To initiate the change to an online system of course delivery, it is important to assess the readiness of the various stakeholders, among are students, teachers and administrative staff (Kaur&Abas, 2004). The trend of using e-resources and audio visual materials as learning tool is now rapidly expanding into education. It is even noted that students understand better, when the theoretical classroom teaching is equally facilitated with the aid of audio visual materials and e-resources. Numerous studies indicate that computer use has a positive impact on student achievement, attitudes, learning rates, and other variables.

Aydm&Tasci, 2005 opined that relevant to the success of an e-learning implementation is the assessment of an organisation's readiness for e-learning. An online readiness assessment measures the ability of an organization to take advantage of online learning tools such as e-resources and audio visual materials available in such organization. Studies have found out that learners are moderately lacking in computer proficiency and, since interactive and online learning is centered on computer technologies usage, it is a barrier to those learners without good computer skills.

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The major e-resources and audio visual materials that can be used for effective teaching and learning process are: (1) Computer (2) Artificial intelligence(AI) (3) Computer Assisted Instruction (4) CD-ROM (Computer Disc- Read Only Memory) (5) Dial Access (6) Educational Television (7) EDUSAT (Educational Satellite) (8) Email (9) Teleconferencing (10) Tele-lecture (11) Tele-tutorial (12) Teleseminar (13) Video (14) interactive video (15) video text (16) Video-conferencing (17) Digital Resources such as e-books and e-journal (18) Virtual university (19) The internet and (20) Electronic databases

Problems associated with the use of technology, which are considered germane to this study, are:

1. Lack of sufficient level of knowledge and skills for the use of audio visual equipment and materials, internet and web technology on the part of its users for online instruction.

2. Non-availability of online learning environments that promote active teaching and learning process, critical thinking, collaborative learning, and knowledge creation.

3. Non-adoption and innovation of interactive and online method into teaching and learning process by departments and schools.

Research Questions

The following research questions were formulated for the purpose of this study:

1. Are e-resources and audio visual materials available for online learning tools in The Federal University of Technology, Akure?

2. Are lecturers ready to introduce interactive and online methods for delivering their lectures and courses in The Federal University of Technology, Akure?

3. Are the students ready to adapt to change if interactive and online method is introduced for their courses and implemented in The Federal University of Technology, Akure?

Hypothesis

Based on the research questions, two hypotheses are formulated which are:

Hypothesis 1: *e*-resources and audio visual materials are not significantly available in The Federal University of Technology, Akure.

Hypothesis 2: There is no significant indication in the readiness of Lecturers to the use of e-resources and audio visual materials in the introduction of online learning method into teaching process in The Federal University of Technology, Akure.

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II. REVIEW OF LITERATURE

The use of computers in education is spreading widely. As technology is creating changes in all aspects of our societal life, it is also changing our expectations of what students learn, how they learn it and where they will learn it so as to function in the new world order(Abimbade, 2005).

In addition, because most of the knowledge related to natural phenomenon is now available in the computer environment. That is why, when teachers use computers as a teaching tool, this will give them the ability to show the physical phenomenon in a way that students can visualize in a three dimensional form (Çepni, Ayas, Johnson&Turgut 1997; Soylu&İbiş,1998).

Computers, when used effectively, can support fundamental characteristics of learning: active engagement, participation in groups, frequent interaction and feedback, and connections to real-world contexts (Roschelle, Pea, Hoadley, Gordin&Means, 2000). According to Aggarwal (2008), it could be used by teachers to construct, score and analyse tests; keep record of student's performance and progress through courses; provide guidance to the students and advise them on the choice of next course module.

The internet has the potential to provide a learning environment that is stimulating and engaging. Educators are able to design a wide array of courses that appeal to the inclination of current college students to use technology and potentially increase learning and retention (Trenholm, 2006).

Finally, much of the research indicates that students of all ages and abilities using audio visual materials and *e*-resources in a variety of instructional models learn as well or even better than those receiving traditional instruction. With the aid of the new technologies, knowledge could be transmitted to intended audience without their physical presence (Ortese, 2014). Computer assisted instruction offers students an opportunity to be actively engaged in the learning process, to receive instruction through a variety of multi-media, to choose when and where they learn, to work at their own pace, and to receive immediate and accurate feedback (Brown, 2003; Cotton, 2001; Hannafin&Foshay, 2008; Kinney&Robertson, 2003).

III. METHODOLOGY

Descriptive survey research design was adopted for the purpose of this study. Simple random sampling techniques were used in which lecturers and students were randomly selected from six schools of the university. The samples used for this study includes twenty students from each schools as well as five lecturers from each schools. This makes a one hundred and twenty students as well as thirty lecturers, which makes a grand one hundred and fifty samples size. School of Sciences, School of Management Technology, School of Engineering and Engineering Technology, School of Earth and Minerals Sciences, School of Agriculture and Agricultural Technology, and School of Environmental Technology were considered for this study.

Two forms of questionnaires were designed for the purpose of this study; one was designed for the lecturers while the other was used for the students. These questionnaires consist of three sections namely: Section A, B and C. Section A; sought information on the respondents personal information, Section B; sought information on the availability of e-resources and audio visual materials and equipment within the institution and personal acquisition by the respondents. Section C; sought information on the level of possession of basic Information and

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Communication Technology (ICT) skills, and readiness towards the use of multimedia, blended learning method of instruction.

The questionnaires were given construct, face and content validation and their reliability index are 0.85 and 0.82 respectively using Cronbach Alpha reliability method. The copies of the questionnaires were distributed to the respondents and all necessary clarifications were made to avoid any error in filling. They were collected back from the respondents some day later after filling. The data collected were analysed in simple percentages. The table showing the frequencies of the respondents was also presented to see the analysis at a glance. A record showing various responses were also put forth and the discussion were based on the finding.

IV. RESULTS AND DISCUSSION

The information obtained and data collected were processed and analysed using descriptive statistic of simple percentage and Chi-square. The results are presented based on the research questions and the hypotheses.

Research question 1: Are e-resources and audio visual materials available for online learning tools in The Federal University of Technology, Akure?
Majority of the respondents (Lecturer and students) (84.80%) are of the view that *e*-resources and Audio visual/interactive learning tools are available in The Federal University of Technology, Akure while 15.20% disagree with the statement.

Research question 2: Are lecturers ready to introduce interactive and online methods for delivering their lectures and courses in The Federal University of Technology, Akure?
Majority of the respondents (Lecturer) (75.25%) are of the view that they are ready to introduce e-learning methods into their teaching process in The Federal University of Technology, Akure while others (24.75%) disagreed with the statement.

Research question 3: Are the students ready to adapt to change if interactive and online method is introduced for their courses and implemented in The Federal University of Technology, Akure?
The result obtained showed significantly that students are ready to adapt to the change if interactive and online learning method is been implemented in delivering lecture in The federal University of Technology, Akure. Majority of the respondents (students) (79.50%) are of the view that they are ready to adapt to the change if e-learning is being implemented in The Federal University of Technology, Akure while others (20.50%) disagree with the statement.

Hypothesis 1: e-resources and audio visual materials are not significantly available in The Federal University of Technology, Akure.
Chi-square(x^2) was used in testing the hypothesis at 0.05 level of significance and its result presented in Table 1.

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Table 1: summary of Chi-square showing if e-learning tools are available in The Federal University of Technology, Akure.

RESPONSES	*O*	*E*	*O-E*	x	*Df*	x^2	*P*
Strongly Agree	507	375.0	132	1.95	3	60.30	<0.05
Agree	565	375.0	190				
Strongly Disagree	274	375.0	-101				
Disagree	154	375.0	-221				
Total	1500	1500	0				

The result obtained was significant (x^2=60.30; p<0.05), therefore the hypothesis rejected. This implies that e-resources and audio visual materials are available in The Federal University of Technology, Akure.

Hypothesis 2: There is no significant indication in the readiness of Lecturers to the use of e-resources and audio visual materials in the introduction of online learning method into teaching process in The Federal University of Technology Akure.
Chi-square(x^2) was used in testing the hypothesis at 0.05 level of significance and its result presented in Table 2.

Table 2: Summary of Chi-square showing the Lecturers readiness to introduction of e-learning methods into their teaching process in The Federal University of Technology Akure.

RESPONSES	*O*	*E*	*O-E*	x	*Df*	x^2	*P*
Strongly Agree	118	95.0	23	1.90	1.75	8.0	<0.05
Agree	205	95.0	110				
Strongly Disagree	52	95.0	-41				
Disagree	5	95.0	-90				
Total	380	380	0				

The result obtained showed significantly that the Lecturers are ready to introduce the use of e-resources and audio visual materials into teaching process in Federal University of Technology, Akure (x^2=8.0; p<0.05), therefore the hypothesis is hereby rejected.

V. CONCLUSION

Available evidence indicates that majority of the respondent agreed that they would be comfortable using a computer systems several times in a week to participate in an online course and they would be able to take notes when watching educational video clips on various subject areas on computer likewise understand calculation and equation related courses when such are presented in audio visual format.

In addition, students report they like working with computers because they teach in small increments, individualize instruction, build proficiency in computer use, reduce the drudgery of doing certain activities by hand, and allow teachers to be available for interactions that are more meaningful.

Computer is helping a lot in bringing online learning method to explicit awareness. Numerous studies indicate that audio visual materials use has a positive impact on students' achievement, attitudes, learning rates, and other variables. In addition, much of the research

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indicates that students of all ages and abilities using computer-assisted instruction in a variety of instructional models learn as well or even better than those receiving traditional instruction.

This study shows that use of e-resources and audio visual materials enables students to develop wider knowledge in the global world and as well develop various skills which can improve their learning. *E*-resources and audio visual materials are available for use in The Federal University of Technology, Akure. Lecturers and students have required and requisite basic ICT skills to use online instruction.

In the light of the findings and conclusions, several recommendations for improvement were advanced, among them being introduction of online learning tools and method into the school's curriculum by the management, involvement of implementers in the planning stage, provision of internet facilities and connection accessible to both Lecturers and students, adequate provision of computer equipment and accessories. lecturers and students should embrace technology and use it to design materials that can help motivate learners and modify their attitudes towards learning process. Finally, introduction of online instructional method in all sphere of Nigeria system of education and curriculum.

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