ATTITUDE OF LECTURERS TO THE USE OF DIGITAL EDUCATION TOOLS IN ACHIEVING TEACHING AND LEARNING OBJECTIVES IN UMAR MUSA YAR’ADUA UNIVERSITY, KATSINA

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Abstract
This study was conducted at Umar Musa Yar’adua University, Katsina State. The overpopulation, overstretched teaching staffs, ICT abusive learners and insufficient attainment of lesson objective mechanisms, call for the adoption of DETs. The study adopts descriptive survey type of research using a structured questionnaire titled “Lecturers’ Usage of Digital Educational Tools Questionnaire (LUDETOQ)” that was validated at Cronbach's Alpha 0.73. The result of the test (0.73) suggests a reliable estimate of the level of internal consistency of the information contained in the responses gathered from the questionnaire. The results showed that lecturers are aware about the digital educational tools which could be used for the attainment of teaching and learning goals and could tell vividly what it could be used for. However, some are sceptical in its ability to be used for assignment and revision purposes. This study revealed that lecturer’s difficulty/dislike in keeping up with changes with technology and lack of knowledge and competencies of how to effectively integrate technology into teaching and learning activity are the main barriers to the digital educational tools use among lecturers. The research recommends that School Management should via a bulletin, mandate/instruct lecturers to regularly engage with students through the selected DETs.

Keywords: Digital Education, Tools, Usage, Teaching and Learning, Objectives

Introduction
The student learning experience is undergoing an unprecedented transformation where digital technology became the driving force for the changing environment and often considered as ‘both’ the problem and the solution to contemporary teaching and learning challenges. Adopting new and digital learning technologies by lecturers could be a welcome development which would give room for continued collaboration and interaction between learner and the instructor. New communication technologies allow students to participate in discussions that are no longer restricted to the classroom. Lecturers can start a topic before the students meet face-to-face and continue the discussion long after the class has ended. In a world where an increasing number of educational institutions offer online courses, which buttresses the methods of achieving all designed learning objectives, it is time to stop and ask how changes in learning technologies have affected learning and whether technology is the problem or the solution. Until when such questions are well answered, the level of engagement,
awareness, and usage among university lecturers might not be properly ascertained. Education is a vital component of development which would be impossible except when the contemporary society accept and believes that the blowing whirlwind of Information and Communication Technology changes are inevitable,( Mikre, 2011).

Therefore, the student learning experience is undergoing an extraordinary change as the integration of technology come to be a major consideration when accessing delivery options, (DeChambeau, 2011). In this research work, the focal point of discourse is on ‘achieving Teaching and Learning Objectives via available Digital Education Tools/Resources even though there exist numerous activity which the modern form of ICT deeply offers. ICT has been described as an effective and efficient tool for teaching and learning in today’s modern society as it is the major host of the learning management system which the digital education tools relies (Suleiman, 2018). It is because of these reasons that (Suleiman, 2018 as cited in Aina, 2012), maintained that teaching has gone beyond traditional method of talk and chalk, and that anyone trying to become a teacher must incorporate with technology. Hence, Lecturers at universities have to deal with the challenges of lesson presentations or delivery for tacit understanding among learners under the atmosphere of congestion, poor seating arrangements, inadequate spaces, undersupplied instructional materials and many others, as such results in to poor attainment of stated objectives. But with emerging technologies at hand, new ways of achieving Teaching and Learning Objectives have become free for users/lecturers.

Digital Education Tools (DET) are electronic tools used to support ICT-integration most especially in education. They are able to accelerate the total innovation process while at the same time contributing extra content matter for learner and lecturers’ advantages, (Tondeur, Coenders, van Braak, ten Brummelhuis and Vanderlinde, 2009). The introduction of open online educational sites have proven further that technology is just amazing, and ergo our university lecturers must not be left behind. In this research paper, certain online educational tools have been painstakingly discussed and include Edmodo, Room21, TED Ed, Kahoot and some others. They are purposively chosen because of their simplicity for classroom activity and lecturer-learner benefits.

**Statement of Problem**

Education system in developing world, Nigeria inclusive, faces not only poor funding or spacious and available lecture rooms alas! Overpopulation, overstretched teaching staffs, ICT abusive learners and insufficient attainment of lesson objective mechanisms such as sound enhancers and assessment/evaluation periods. The resultant effects are graduation of impractical individuals for the reason that the proposed goals and objectives set were never completed, less motivated lecturers due to boredom in controlling and disseminating information to large size of students, recurrent spoilage of teaching and learning resources (defacement/vandalism) and so on. This research paper hope to serve as a guide towards alleviating these and other innumerable challenges that bedeviled our education system.

**Objectives of the Study**

This research paper hope to achieve the following objectives, to:
1. Ascertain Lecturers’ level of awareness about the Digital Educational Tools use for achieving teaching and learning objectives.
2. Determine the level of Lecturer’s attitude towards the use of Digital Educational Tools in achieving teaching and learning objectives.
3. Discover barriers that affect the usage of Digital Educational Tools for achieving Teaching and Learning objective among lecturers.

Research Questions
The following questions guide the research study, thus:
1. What is the level of lecturers’ awareness about the Digital Educational Tools for achieving Teaching and Learning objectives?
2. What is the level of Lecturer’s attitude towards the use of Digital Educational Tools in achieving Teaching and Learning objectives?
3. What are the barriers that affect the usage of Digital Educational Tools for achieving Teaching and Learning objective among lecturers?

Review of Related Literature
Information and Communication Technology and Modern Learning
It is obvious that all cutting-edge technological advancements in education revolves round the ICT under which remarkable breakthroughs became the order of the day. According to Suleiman (2018), since personal computers and the internet became being more widely used in the late 1980s and early 1990s, the use of ICT in education has grown rapidly. The author added that ICT included not only learning resources but also tools to facilitate interaction and collaboration. These include learning management systems such as blackboard and Web-CT which became widespread. Also, social networking sites (e.g. Facebook, Flicker and Yahoo 3600) permitted people to create profiles and upload information including text, photos, pictures, audio files and videos files, where the users could also add, edit and remove content. New resources called Digital Educational Tools such as the Edmodo, Room21, TedED and many other open educational online resources also further simplifies the process of interactive teaching and learning as well.

Digital Education Tools and Differential Mode of Operation
Hundreds of digital education tools (DET) have been created and identified with the purpose of giving autonomy to the student, improving the administration of academic processes, encouraging collaboration, and facilitating communication between teachers and the leaners (Chauhan, 2018). The followings were discussed by this author, thus:

Edmodo: This is an educational tool that connects teachers and students, and is assimilated into a social network. In this one, teachers can create online collaborative groups, administer and provide educational materials, measure student performance, and communicate with parents, among other functions. Edmodo has more than 34 million users who connect to create a learning process that is more enriching, personalized, and aligned with the opportunities brought by technology and the digital environment.

Socrative: Designed by a group of entrepreneurs and engineers passionate about education, Socrative is a system that allows teachers to create exercises or educational games which students can solve using mobile devices, whether smartphones, laptops, or tablets. Teachers can see the results of the activities and, depending on these, modify the subsequent lessons in order to make them more personalized.
Projekt: Projekt is a tool that allows you to create multimedia presentations, with dynamic slides in which you can embed interactive maps, links, online quizzes, Twitter timelines, and videos, among other options. During a class session, teachers can share with students’ academic presentations which are visually adapted to different devices.

TED-Ed: TED-Ed is an educational platform that allows creating educational lessons with the collaboration of teachers, students, animators—generally people who want to expand knowledge and good ideas. This website allows democratizing access to information, both for teachers and students. Here, people can have an active participation in the learning process of others.

EduClipper: This platform allows teachers and students to share and explore references and educational material. In eduClipper, you can collect information found on the internet and then share it with the members of previously created groups, which offers the possibility to manage more effectively the academic content found online, improve research techniques, and have a digital record of what students achieved during the course. Likewise, it provides the opportunity for teachers to organize a virtual class with their students and create a portfolio where all the work carried out is stored.

Kahoot: Kahoot is an educational platform that is based on games and questions. Through this tool, teachers can create questionnaires, discussions, or surveys that complement academic lessons. The material is projected in the classroom and questions are answered by students while playing and learning at the same time. Kahoot promotes game-based learning, which increases student engagement and creates a dynamic, social, and fun educational environment.

Room21: Room21 is a 21st Century Social Learning Platform. It is a Facebook-like environment designed for peer collaboration and to create Learning Communities online. The site is free and allows all members of the learning communities—students, parents, teachers, and administrators to become engaged in the process, (Falade and Alimi, 2015, as cited in Mirriahi, 2014).

These digital tools could be of great relevance to lecturers if put in to use due to the fact that students are increasingly becoming well versed in modern communication technology.

Teaching and Learning Objectives in Education
Learning objectives are statements that define the expected goal of a curriculum, course, lesson or activity in terms of demonstrable skills or knowledge that will be acquired by a student as a result of instruction. Instruction is highly an indispensable part of teaching and learning which need to be changed in order to fit into this age of technology.

Methodology
The study adopts descriptive survey design of research in order to answer the three (3) questions poised. The reason is because this type of research allows the researcher to seek wider information with limited restrictions and for accurate generalization of findings and how they could be redressed appropriately. Qualitative and quantitative analysis were used in discussing the findings thereon. The entire population of the respondents was used since it is a small number which is sixty three (63). The questionnaires were randomly administered to lecturers (which is the total size of the entire academic staff of the faculty and the two departments, 55 males and 8 females) with a response rate of 82.54 percent from the retrieved questionnaires. The retrieved questionnaires were 52, out of the 63 where 8 were not returned.
and three (3) were spoilt. The new population therefore is fifty two (52), forty five (45) Males and seven (7) Females, analyzed by way of frequency count, percentages.

The research instrument used was a structured questionnaire titled as “Lecturers Use of Digital Education Tools in Achieving Teaching and Learning Objectives Questionnaire in Umar Musa Yar’adua University, (LUDETOQ)”, was validated at Cronbach’s Alpha 0.73 by five experts from the department of educational foundations and curriculum, Ahmadu Bello University, Zaria, and a five member panel of interviewee were used after which analysis were conducted appropriately. Also, some questions in the questionnaire were adopted from Ithaca College, 2011, Faculty Survey on Instructional Technology Final Report. The result of the test (0.73) suggests a reliable estimate of the level of internal consistency of the information contained in the responses gathered from the questionnaire. The data on the demography of the respondents was analyzed using the frequency and percentages. The study was conducted at Umar Musa Yar’adua University, Katsina State. The research specifically covers this institutions in order to ascertain the level of awareness, attitude, and possible barriers on the use of digital education tools in achieving teaching and learning objectives. A structured and validated questionnaire was administered with a YES/TRUE and NO/FALSE options to the respondents.

Results

Research Questions One: What is the lecturers’ level of awareness about the digital educational tools for achieving teaching and learning objectives?

Table 1: Percentage Lecturer’s Awareness on the Use of Digital Education Tools

<table>
<thead>
<tr>
<th>S/No</th>
<th>Items</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aware About Digital Education Tools</td>
<td>36</td>
<td>69.20</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>16</td>
<td>30.8</td>
</tr>
<tr>
<td>2</td>
<td>For Lecture Introduction Purposes</td>
<td>32</td>
<td>61.54</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>20</td>
<td>38.46</td>
</tr>
<tr>
<td>3</td>
<td>For Explanatory Purposes</td>
<td>36</td>
<td>69.20</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>16</td>
<td>30.80</td>
</tr>
<tr>
<td>4</td>
<td>For Assignment Purposes</td>
<td>24</td>
<td>46.15</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>28</td>
<td>53.85</td>
</tr>
<tr>
<td>5</td>
<td>For Assessment Purposes</td>
<td>28</td>
<td>53.85</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>24</td>
<td>46.15</td>
</tr>
<tr>
<td>6</td>
<td>For Revision Purposes</td>
<td>20</td>
<td>38.36</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>32</td>
<td>61.54</td>
</tr>
<tr>
<td>7</td>
<td>Can tell what could be done with Digital Education Tools</td>
<td>28</td>
<td>53.85</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>24</td>
<td>46.15</td>
</tr>
</tbody>
</table>

Source: Field Study, 2019

On the lecturer’s level of awareness in terms of use of digital education tools, the respondents had varied and paralleled views. Sizeable number, 36 (69.20%) responded that they are aware about existing digital
education tools. These could be a turning point in achieving certain planned learning/Teaching and Learning objectives. This is a good development as it could serve as a basis for entrenching new technologies into our education systems. Since there is the awareness, the purposes to which these tools could be used for are tremendous. About activities that could be effectively performed via the digital educational technology tools, the responses 32 (61.54%) showed that lectures could be introduced there 36 (69.20%) allows lecturers to engage learners into fruitful discussion and explanation of concepts and ideas, 28 (53.85%) be effective in assessment purposes and monitoring of learners’ progress. But 28 (53.85) did not agree it could be useful in assignment work purposes, or revision activity 32 (61.54%). A number of respondents 28 (53.85%) could tell what Digital Educational Tools could be used in lesson or learning activity.

**Research Questions Two:** What is the level of Lecturer’s attitude towards the use of Digital Educational Tools in achieving Teaching and Learning objectives?

**Table 2: Percentage of Lecturer’s Attitude on the Use of Digital Education Tools**

<table>
<thead>
<tr>
<th>S/No</th>
<th>Items</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>Like to use digital tools in my classroom activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>48</td>
<td>92.31</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>4</td>
<td>7.69</td>
</tr>
<tr>
<td>9</td>
<td>I discussed with colleagues on how to adopt Digital Education Tools in lecture activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>8</td>
<td>15.38</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>44</td>
<td>84.62</td>
</tr>
<tr>
<td>10.</td>
<td>I support the introduction of Digital Education Tools as part of Teaching and Learning Resources for the achievement of set objectives</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>36</td>
<td>69.20</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>16</td>
<td>30.80</td>
</tr>
</tbody>
</table>

**Source:** Field Study, 2019

Table three (3) sought for the responses on attitude towards the use of Digital Educational Tools in achieving lesson/learning objectives. About 48 (92.31%) of the respondents have shown a positive attitude towards the use of Digital Educational Tools in the school and out of the school setup. But 44 (84.62%) agreed that they do not discuss with colleagues on how to adopt Digital Education Tools in lecture activities. This hampers on the chances of wider incorporation of Digital Educational Tools in to education process or programmes. On the support to introduction of Digital Education Tools as part of Teaching and Learning Resources for the achievement of set objectives, 36 (69.20%) showed a clear response.

**Research Questions Three:** What are the barriers that affect the usage of Digital Educational Tools for achieving Teaching and Learning objective among lecturers?

**Table 3: Percentage of the respondents on the Barriers to Lecturer’s Use of Digital Education Tools**
Table four (4) showed an analyses of the respondents on the possible barrier (s) to the effective use of digital educational technology in achieving Teaching and Learning objectives. The respondents did not agree that lack of time 40 (76.92%), Poor Data availability prevents me from using Digital Education Tools in my lecture 32 (61.54%), or lack of financial support 32 (61.54%), are barriers towards the use of digital educational technology. Instead, lack of knowledge (competencies) of how to effectively integrate technology into teaching 32 (61.54%) and difficulty/dislike in keeping up with changes with technology 28 (53.85%), are a great barrier that hampers the lecturers’ use of DET.

Discussion of Findings
In this research work, it was learnt that demographic entities showed that the majority of the teaching staff in the faculty of education are male dominating the female counterpart. This an indication that female lecturers are needed so as to increase and bridge the gender disparity in our society and also to serve as an impetus for the other girl child towards advancing their education quest to the highest possible levels. It is also vital to understand that the majority of the respondents’ qualification is at the right status, higher degree. With these, qualifications the staff have a good chance of pursuing lots of advanced programmes both within and outside the country most especial those programmes that are related to technology integration in education. The observed or reported periods covered by the staff in the academic demesnes showed that majority are in the fresh level of career. This means that the chances of incorporating digital education technology tools is fruitful and possible. The only thing is determination from all the stakes concern. It goes with work of Onasanya, Shehu, Oduwaiye, and Shehu, (2010) who reported that the new and less experienced lecturers are more disposed towards the use of ICT facilities than the senior colleagues.
On the lecturer’s level of awareness in terms of use of digital education tools, it is revealed that lecturers were aware about existing digital education tools. These could be a turning point in achieving certain planned learning/Teaching and Learning objectives. This is a good development as it could serve as a basis for entrenching new technologies into our education systems. Since there is the awareness, the purposes to which these tools could be used for are tremendous. This result is not consistent with what was reported in the work of Zubairu, Gambari, and Hamman, (2017), where they adduced that “lack of awareness on the usefulness of the media (that is digital devices) is a major factor militating against the use of digital educational technology media by lecturers, and indeed the recent work of Yusuf, Bawale, and Aminu (2018). This research result also showed that there is a positive attitude towards the use of Digital Educational Tools in the school and out of the school setup. This re-affirmed the findings of Ndibalema, (2014) and Olafare, (2017), who maintained that lecturers/teachers have shown positive attitude towards the integration of ICT into their teaching and learning activity. This research had discovered that among the possible barriers to the effective use of digital educational technology in achieving teaching and learning objectives were the lecturer’s difficulty/dislike in keeping up with changes with technology and lack of knowledge and competencies of how to effectively integrate technology into teaching and learning activity. It is consistent with the findings of Kaduhur and Polit, (2018), who asserted that teachers had no pedagogical competencies in the use of modern technology resources hence there is a gap.

Summary
The major objective of this research study was to ascertain lecturers’ level of awareness, attitude and barriers about the Digital Educational Tools use for achieving Teaching and Learning objectives. This research work had investigated some of the issues underlining the use of those tools in varied arenas. Lecturers like to use digital educational tools in classroom activities and support its introduction as part of teaching and learning resources. But still there exist certain challenges in such attempts.

Conclusion
This study revealed that lecturer’s difficulty/dislike in keeping up with changes with technology and lack of knowledge of how to effectively integrate technology into teaching and learning activity are the main barriers to the digital educational tools use among lecturers. The findings buttress what Ahmad, Kamba and Usman found among other things “The feeling of dislike for technology (digital educational technology), has led to lower patronage for technology devices and services (learners engagement). And if not squarely addressed may limit the expected growth to an information society, thereby retarding the chances of proper use in our education system.”

Recommendations
In this period of media and communication technology advancement, the research recommends among other things that:
1. The school management should, via a bulletin, mandate/instruct lecturers to regularly engage with students through the selected DET as this will facilitate regular and sustained collaboration between them.
2. Inter and Intra-departmental forums and symposia should be regularly organized, this will allow lecturers to freely discuss and deliberate on how to effectively use DET in their day today academic activities, as such improve their skills and knowledge and fits into the 21st century academics.

3. Since promotion is considered the most vital in academics and other public and private organisations, criteria should be designed whereby only lecturers with ICT knowledge and proof of use from head of department be considered. This will force lecturers who adamant to utilize both soft and hard ICT resources in education to change their attitude.

References


