EFFECTS OF AVAILABILITY AND USAGE OF ICT ON TERTIARY STUDENTS’ ACHIEVEMENT IN HISTORY IN PLATEAU STATE, NIGERIA

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ABSTRACT

The paper is a research report on the Effects of the Availability and Usage of Information and Communication Technology (ICT) on Tertiary Students Achievement in History in Plateau State, Nigeria. The survey research design was used. The population consist of all history students in tertiary institutions in Plateau State. A sample of 100 respondents constituting 95 students and 5 lecturers were selected from three randomly selected tertiary institutions offering History in the state. The data collected were analysed using mean scores. The findings of the study indicated that ICT facilities and tools are lacking in most tertiary institutions offering History in Plateau State. The results also showed that History lecturers rarely use ICT for instruction. Evidences from the study however affirmed that using ICT for History Instruction and learning will improve students’ achievement compared to the Conventional Instructional Strategy (CIS). Based on the findings, it was recommended that educational authorities should provide functional ICT facilities and train History teachers on the use of such materials in the classroom to enhance students’ understanding and achievement in History.

Keywords: ICT, Software, Hardware, Internet, Multimedia, E-mail, E- Learning.

INTRODUCTION

The society has so far undergone three phases in its socio-economic development. The first phase was the agricultural revolution, the second was industrial revolution and the third phase is the current information technology revolution (Ala-Mutka, Punie, & Redecker, 2008). ICTs have become within a very short time, one of the basic building blocks of modern society. Many countries now regard understanding and mastering the basic skills and concepts of ICT as part of the core of education, alongside reading, writing and numeracy (Daniels, 2002).
However, there appears to be a misconception that ICTs generally refer to ‘computers and computer related activities’. This is unfortunately not the case, although computers and their application play a significant role in modern information management, other technologies and/or systems also make up of the phenomenon that is commonly regarded as ICTs. Pelgrum and Law (2003) state that near the end of the 1980s, the term ‘computers’ was replaced by Information Technology (IT) signifying a shift of focus from computing technology to the capacity to store and retrieve information. This was followed by the introduction of the term Information and Communication Technology (ICT), when e-mail started to become available to the general public (Pelgrum & Law, 2003). According to a United Nations report (2010) ICTs cover Internet service provision, telecommunications equipment and services, information technology equipment and services, media and broadcasting, libraries and documentation centres, commercial information providers, network-based information services, and other related information and communication activities.

According to UNESCO (2002), Information and Communication Technology (ICT) may be regarded as a combination of ‘informatics technology’ with other related technology, specifically communication technology. The various kinds of ICT products available and having relevance to education, such as teleconferencing, email, audio conferencing, television lessons, radio broadcasts, interactive radio counselling, interactive voice response system, audiocassettes and CD ROMs and others have been used in education for different purposes (Sharma, 2003).

The field of education has been affected by ICTs and ICTs have affected teaching, learning, and research (Yusuf, 2005). A great deal of research has proven the benefits to the quality of education (Al-Ansari, 2006). Information and Communication Technology has the potential to innovate, accelerate, enrich, and deepen skills; to motivate and engage students; to help relate school experience to work practices; create economic viability for tomorrow’s workers, as well as strengthening teaching and helping schools change.

The utilization of information and Communication Technology for teaching and learning in Nigerian schools is generally said to be low (Sanda, 2008). This is also the case in History units of tertiary institutions of Plateau State, Nigeria. This research work will among other things, identify the ICT tools used by the lecturers and students of History in tertiary institutions in Plateau State and their effects on students’ achievement.

**STATEMENT OF THE PROBLEM**

History as an intellectual discipline in Nigeria began and flourished in the second half of the 20th century. Its twenty-five years of existence was marked by spectacular performance
in the quality and quantity of research carried out by Nigerian historians of that generation. However, before the recent pronouncement by the Nigerian Government which makes the study of History compulsory at all levels, the fortunes of the discipline had in the last two decades of the twentieth century, begun to pale into insignificance within the Nigerian society. This resulted in a crisis of relevance which has continued up till the present. Several attempts have been made to get the discipline out of its predicament. Some of these patriotic but short lived attempts have inadvertently deepened the crisis. It is an irony of history that it is at this moment that Nigeria marks her 57TH year independence, that considerable concern is being expressed about the continued existence of History as a core school subject (Omolewa, 2014).

History matters. And historians all across Nigeria have been given a real chance to investigate the relevance of historical studies in national consciousness (Sanda, 2008). In addition to this, concerns over educational relevance and quality coexist with the imperative of expanding educational opportunities to those made most vulnerable by globalization in developing countries in general; low-income groups, girls and women, and low-skilled workers in particular. Global changes also put pressure on all groups to constantly acquire and apply new skills. The International Labour Organization defines the requirements for education and training in the new global economy simply as “basic education for all”, core work skills for all and “lifelong learning for all”. Information and communication technologies (ICTs) which include radio and television, as well as newer digital technologies such as computers and the Internet have been touted as potentially powerful enabling tools for educational change and reform. When used appropriately, different ICTs are said to help expand access to education, strengthen the relevance of education to the increasingly digital workplace, and raise educational quality by, among others, helping to make teaching and learning an engaging, active process connected to real life.

Access to information is the key to enhanced academic performance of students. With the advent of ICTs, History instructors and students have acquired additional source for getting information along with the libraries in schools. There has been heated debate from officials and public cycles aimed at establishing the root cause of the persistent watershed in the students’ enrolment into History particularly at the secondary school level. History teachers in Nigerian schools have observed with dismay and regret the non-challan attitude of some students towards the subject and their studies. This research investigates the effects of the availability and usage of ICTs for History instruction and its implication on students’ achievement in tertiary institutions in Plateau State.
The aim of the study was to examine the effects of the availability and usage of ICT on student’s achievement History in tertiary institutions in Plateau State, Nigeria. Specifically, the study sought to:

1. Identify types of ICT tools used by lecturers in the selected tertiary institutions for History instruction.
2. Determine the level of ICT utilization by the history teachers and students within the selected tertiary institutions.
3. Identify the opinions of lecturers and students of History on the benefits of using ICTs.
4. Identify the effects and challenges of ICT on History in tertiary institutions and other sectors of the society.

**RESEARCH QUESTIONS**

The following research questions would guide the study:

1. What types of ICT tools are being used by History lecturers and students in the selected tertiary institutions in Plateau State?
2. What is the level of ICT utilization of the history teachers and students in the selected institutions?
3. What are the opinions of lecturers and students of History on the benefits of using ICT?
4. What are the effects and challenges of using ICT in the teaching and learning of History and International Studies Education in the selected tertiary institutions?

**HYPOTHESIS**

\( H_01 \): There is no significant relationship between ICT utilisation and academic achievement of History and International Studies Education lecturers and students in the selected tertiary institutions in Plateau State.

**METHODOLOGY**

The research design employed in this research work is survey research design. As such, this research design is expected to give an estimate view to the problem from the population samples, opinions and attitudes on the topic. The population for the study comprised all students and lecturers in tertiary institutions offering History in Plateau State. There are seven tertiary institutions with 721 students and 24 lecturers in the History Department of these institutions. Out of these, 95 students and 5 lecturers were randomly selected to constitute the sample. The instrument used for the collection of data was a questionnaire titled “Availability and Use of ICT for History Instruction: Implication for Students Achievement in Tertiary Institutions In plateau State Questionnaire (AUICTHIISATIPSQ)”. Validity of instrument were obtained through evaluation by two experts, one from the field of History and
International Studies Education and the other from Test and Measurement. The data collected were analysed using mean scores.

RESULT

Table 1: The Sampled Schools, the Distribution, and Returned Questionnaires from Students and Lecturers

<table>
<thead>
<tr>
<th>Name of School</th>
<th>Respondents (lecturers)</th>
<th>Respondents (students)</th>
<th>No. of Questionnaires distributed</th>
<th>No. of Questionnaires returned</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>University of Jos</td>
<td>2</td>
<td>40</td>
<td>42</td>
<td>42</td>
<td>100</td>
</tr>
<tr>
<td>COE Gindiri</td>
<td>2</td>
<td>40</td>
<td>42</td>
<td>42</td>
<td>100</td>
</tr>
<tr>
<td>CARS Kurgwi</td>
<td>1</td>
<td>15</td>
<td>16</td>
<td>16</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 1 shows that a total of 100 questionnaires were administered to students and lecturers in all the three selected tertiary institutions that offer History in the state. Forty two questionnaires were administered to the students in University of Jos and College of Education Gindiri while only sixteen were administered in College of Arts, Science and Remedial Studies, Kurgwi. The researchers used the face to face method; as a result of this, all questionnaires administered to students and lecturers were all retrieved.

Research Question One

What types of ICT tools are being used by History lecturers and students in the selected tertiary institutions in Plateau State?

Table 2: Frequency of Responses and Calculated Mean on Types of ICT Tools Being Used by History Lecturers and Students

<table>
<thead>
<tr>
<th>Types of ICT tools used by history lecturers and students</th>
<th>SA</th>
<th>A</th>
<th>DA</th>
<th>SD</th>
<th>Score fx/\bar{x}</th>
<th>Mean \bar{x}</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 There are instructional materials for History instruction in my institution</td>
<td>Frequency: 57</td>
<td>39</td>
<td>3</td>
<td>1</td>
<td>100</td>
<td>3.52</td>
</tr>
<tr>
<td>2 My institution has ICT facilities for History instruction</td>
<td>Frequency: 17</td>
<td>31</td>
<td>27</td>
<td>25</td>
<td>100</td>
<td>2.10</td>
</tr>
<tr>
<td>3 There are functional radios, televisions, tape recorders and speakers for History instruction in my institution</td>
<td>Frequency: 32</td>
<td>11</td>
<td>18</td>
<td>39</td>
<td>100</td>
<td>2.36</td>
</tr>
<tr>
<td>4 My institution has computers and free internet service that are readily accessible for History instruction</td>
<td>Frequency: 17</td>
<td>08</td>
<td>33</td>
<td>42</td>
<td>100</td>
<td>2.00</td>
</tr>
</tbody>
</table>

In analysing table two above, items 1,2,3, and 4 of both the students and lecturers questionnaire were respectively rated on Likerts four points modified scale of strongly agreed (SA), Agreed (A), Disagreed (DA), and Strongly Disagreed (SD) corresponding to 4,3,2,1 scores. Thus a critical mean or acceptable mean point of an item is maintained at 2.5. This implies that any mean below 2.5 was rejected. The analyses of items 1 to 4 of the questionnaires as presented above indicated that on item one (1) have mean scores above 2.5 which are 3.52
and 3.4 respectively. Hence, it shows that most of the tertiary institutions that offer History in Plateau State lack ICT facilities and tools for History instruction.

**Research Question Two**

What is the level of ICT utilization of the History lecturers and students in the selected institutions?

Table 3: Showing Responses on Extent of ICT Use for History Instruction

<table>
<thead>
<tr>
<th>Extent of ICT use for History instruction</th>
<th>SA</th>
<th>A</th>
<th>DA</th>
<th>SD</th>
<th>Score fx/(\bar{x})</th>
<th>Mean (\bar{x})</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 My History lecturers use ICT facilities and tools to teach History</td>
<td>11</td>
<td>13</td>
<td>56</td>
<td>20</td>
<td>100</td>
<td>2.15</td>
</tr>
<tr>
<td>6 My History lecturers are very proficient in using ICT facilities and tools for History instruction</td>
<td>07</td>
<td>19</td>
<td>39</td>
<td>35</td>
<td>100</td>
<td>1.98</td>
</tr>
<tr>
<td>7 I find relevant Historical materials in my school library on line</td>
<td>23</td>
<td>12</td>
<td>32</td>
<td>33</td>
<td>100</td>
<td>2.25</td>
</tr>
<tr>
<td>8 I use my personal cell phone and computer to surf, share and receive historical content</td>
<td>44</td>
<td>12</td>
<td>31</td>
<td>13</td>
<td>100</td>
<td>2.87</td>
</tr>
</tbody>
</table>

Items 5, 6, 7, and 8 of the questionnaires were specifically crafted to answer research question two above. The computation shows that most History lecturers are not proficient in using ICT tools for History instruction in tertiary institutions within the study area. Mean scores of 1.98 in item 5 of the questionnaire justifies this fact. However, the result of the analyses above revealed that respondents use their cell phones and personal computers to surf, share, and receive historical content. Mean scores of 2.87 in item eight supports this assertion.

**Research Question Three**

What are the opinions of lecturers and students of History on the benefits of using ICT?

Table 3

<table>
<thead>
<tr>
<th>Effects of using ICT in teaching and learning of History</th>
<th>SA</th>
<th>A</th>
<th>DA</th>
<th>SD</th>
<th>Score fx/(\bar{x})</th>
<th>Mean (\bar{x})</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 Using ICT for History instruction has really improved my performance</td>
<td>32</td>
<td>39</td>
<td>17</td>
<td>12</td>
<td>100</td>
<td>2.91</td>
</tr>
<tr>
<td>10 ICT literacy prepares History students for the increasing digital workplace</td>
<td>48</td>
<td>37</td>
<td>08</td>
<td>07</td>
<td>100</td>
<td>3.06</td>
</tr>
<tr>
<td>11 My inability to use ICT tools proficiently is affecting my achievement in History</td>
<td>39</td>
<td>37</td>
<td>14</td>
<td>10</td>
<td>100</td>
<td>3.05</td>
</tr>
</tbody>
</table>

The data analysed in table three above indicates that there are many benefits inherent in using ICT for History instruction. Among the many benefits are increasing the proficiency of History teachers and students in appropriating the multiple benefits of ICT and preparing them for the increasing digital workplace. This is corroborated by the mean scores of (2.95, 3.06, 3.05) in item 9, 10 and 11 of the students’ questionnaire.
**Research Question Four**

RQ4: What are the challenges faced in using ICT for History instruction in the selected tertiary institutions?

**TABLE 4**

<table>
<thead>
<tr>
<th>Factors affecting the use of ICT for History instruction</th>
<th>SA</th>
<th>A</th>
<th>DA</th>
<th>SD</th>
<th>Score FX/X</th>
<th>Mean X</th>
</tr>
</thead>
<tbody>
<tr>
<td>The non-availability of ICT facilities and tools hampers my achievement in History</td>
<td>45</td>
<td>37</td>
<td>12</td>
<td>06</td>
<td>100</td>
<td>3.21</td>
</tr>
<tr>
<td>Lack of/ poor internet connections is a major challenge in using ICT to learn History</td>
<td>180</td>
<td>111</td>
<td>24</td>
<td>06</td>
<td>321</td>
<td></td>
</tr>
<tr>
<td>The poor attitude of History lecturers is a factor affecting the use of ICT for History Instruction</td>
<td>41</td>
<td>33</td>
<td>17</td>
<td>09</td>
<td>100</td>
<td>3.16</td>
</tr>
<tr>
<td>Frequency: score:</td>
<td>Frequency: score:</td>
<td>Frequency: score:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The computation of item 12, 13, and 14 of the questionnaires showed that the non-availability of ICT facilities and tools and the lack of reliable internet connections are key challenges in the use of ICT for History instruction in tertiary institutions within the study area. Very high mean scores of 3.16, 3.21 and 3.2, 3.2 in items 13 and 14 of the questionnaires are evidences in point here. Hence, these are among others major factors affecting the use of ICT for History instruction in tertiary institutions in Plateau State considering the fact that these mean scores are far above the criteria mean of 2.5.

**HYPOTHESIS**

There is no significant relationship between availability and usage of ICT for History instruction and students’ achievement in tertiary institutions in Plateau State.

<table>
<thead>
<tr>
<th>S/N</th>
<th>Relationship between ICT usage and student’s achievement in History</th>
<th>(\sum F) Summation of responses</th>
<th>(\sum F) Summation of responses multiplied by scale</th>
<th>Mean</th>
<th>Critical Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Using ICT for History instruction has really improved my performance</td>
<td>105</td>
<td>291</td>
<td>2.91</td>
<td>2.5</td>
</tr>
<tr>
<td>2</td>
<td>ICT literacy will prepare History students and lecturers for the increasing digital workplace</td>
<td>105</td>
<td>306</td>
<td>3.06</td>
<td>2.5</td>
</tr>
<tr>
<td>3</td>
<td>My inability to use ICT tools proficiently is affecting my achievement in History</td>
<td>105</td>
<td>305</td>
<td>3.05</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Items 9, 10 and 11 of the questionnaires were specially formulated to generate data that will lend credence to this hypothesis or not. The analyses from the table above showed that the three items have calculated mean scores of 2.91, 3.06 and 3.05 respectively. These are well above the critical mean of 2.5. Therefore, the null hypothesis that there is no significant relationship between availability and usage of ICT for history instruction and students’ achievement in Tertiary Institutions in Plateau State is rejected and we uphold its alternative equivalent which indicates that there is significant relationship between the use of ICT for History instruction and students’ achievement in History in the area.
DISCUSSION

This piece of work is on Effect of the availability and usage of ICT on students’ achievement in History in tertiary institutions in Plateau State. Four research questions and a hypothesis were used to elicit responses from the lecturers and students.

The analyses of items on research question one showed a near lack of ICT facilities and tools for History instruction in tertiary institutions within the study area. This finding is further supported by Gusen (2011) who lamented the non-availability of ICT tools in tertiary institutions in Plateau State.

The analyses of items crafted to answer research question two indicated that most History lecturers do not use ICT tools for History instruction. The result also shows that most History lecturers and students are not proficient in using ICT facilities and tools in teaching and learning of History. Hence, in terms of the general contributions of ICT to history teaching, responses were in line with other recent surveys of history teachers’ use of ICT (Bardswell & Easdown, 1999; DfEE, 2001), in that only a small minority of the sample claimed to make ‘substantial’ use of ICT in their history lessons, with most respondents falling between ‘some’, and ‘little’ use. The only exception to this was in terms of ‘no use’ of ICT.

Furthermore, all items on research question three indicated that ICT has the potential of improving History teacher’s content delivery and their students’ achievement. It was also found that using ICT for History instruction will prepare History teachers and students to fit into the fast changing world. This importance has been put forward by studies conducted by the Institute for Prospective Technological Studies (IPTS) which suggest that the high take up of social media applications outside of formal educational settings provides new opportunities for innovation and modernization Education and Training institutions and for preparing learners for the 21st century. Moreover, Jeremy (2007) states that students and teachers can find practically any kind of information they want on the Internet. They can access newspapers, encyclopaedias, history sites, film guides, lyrics, and broadcasting associations. Hence ICT has the potential of strengthening education and training, lifelong learning and the acquisition of new skills.

Finally, findings from this study as demonstrated by research question four identified non-availability of ICT facilities and tools, poor internet connections and low ICT literacy and proficiency among History lecturers and students as major challenges in using ICT for History instruction. This finding is corroborated by other researchers who have also explored drawbacks of the use of the ICT in education. Connole (2010) found that technical problems/lack of internet access, teachers' lacking knowledge and experience, unsuitable
information for children, and time-consuming browsing on the internet. Wheeler (2001) underscores the threats of internet use for young people. Among other things, there is information about drug use and bomb making on the internet. Wheeler states further that “a great deal of information on the internet is of questionable value, inaccurate or misleading”.

**CONCLUSION**

It is concluded that ICT promotes better teaching and learning outcomes on students’ achievement in History in tertiary institutions in Plateau State. The overall conclusion from this study is that ICT has a significant and positive effect on History instruction and learning. The facilities for ICT are lacking in most of the tertiary institutions studied. ICT contributes to greater performance or achievement of students.

**RECOMMENDATIONS**

Based on the findings of the study, it is recommended that:

1. History teachers should be trained on the use of ICT in the classroom to enhance students’ understanding in basic themes in History.
2. the curriculum for training and retraining of History teachers should be reviewed to adequately furnish students with the basic skills of handling all ICT materials that are needed for effective teaching and learning of History
3. ICT training should be built into the curriculum at all levels as a general study that will be compulsory throughout the period of study.
4. well equipped and functional ICT laboratories should be in all History Departments of tertiary institutions in the state.

**REFERENCES**


