



Assessment of Information and Communication Technology (ICT) Usage by Cultural and Creative Art Teachers in Secondary Schools in Kogi State, Nigeria

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Abstract

Education in the 21st Century is not without challenges, however, with these challenges, if Information and Communication Technology is wholesomely integrated into the education system, ranging from the elementary schools to the tertiary levels, much will be given to the learners and the society at large. Education in arts as it stands is one of the numerous areas that require the use or manipulation of ICT especially as almost all human endeavors are shrouded under the use of technology. The adoption of ICT in teaching creative art in secondary schools in Kogi State has been an issue that needs to be addressed for the sake of knowledge delivery. Findings revealed that; most of the CCA teachers in Kogi State do not have basic ICT resources such as internet and computers at their disposal for teaching. It was recommended in this study that; there should be provision of ICT resources such as computers, internet services and ICT enabled art studio.

Keywords: Assessment, Information and Communication Technology (ICT), Usage, Teachers, Secondary Schools.

Introduction

As a new paradigm emerges, the shift brings in a set of principles that becomes the new basis for organizing every activity and for structuring any organization, be it government, business, entertainment or education. While developed countries are engaged in the

shift from mass production to information technology paradigm, the economies of many less developed countries are pre-industrial and based on agriculture (UNESCO, 2011). Africa being a continent with many developing nations and large dependence on its natural

resources should wake up to the fact that its human and natural resources are being eroded by the introduction of the new technologies in other continents like America, Europe and Asia (Marcellius, 2009). Nigeria as a nation therefore, needs to devise new and profitable adjustment mechanisms for integrating into the global system as was the case in the colonial period (Adomi, and Kpangban, 2010).

Mikre (2011) submits that, Nigeria is the most populated country in Africa and is considered to be one of the major countries in Africa known for its culture, commerce and education which has brought much international accolades to the nation. Therefore, because of her international attraction, it will not be a surprise to know that Nigeria is one of the leading countries in Information Communication Technology (ICT) infrastructure and training in Africa. This has helped in making it possible for e-learning to come to Nigeria. At the moment, the government and different private sectors are undertaking different initiative programs to support e-learning in Nigeria and there is no doubt that e-learning has come to stay, though, at the moment, it is being encumbered with a lot of problems.

Integrating ICT into teaching and learning is not a new concept. It may be as old as other technologies such as radios or televisions (Som, 2006). However, with the rapid development of emerging technology such as web technology, ICT integration has increasingly attracted the attention of educators. The integration of information and communication technology can help teachers and students to improve and develop the quality of education by providing curricular support in difficult subject areas (Gregory, 2009). And as stated by Egbowon (2007), integration has a sense of completeness or wholeness by which all essential elements of a system are seamlessly combined together to make a whole. He also asserted that ICT and other crucial educational components such as content and pedagogy are molded into entity to say that ICT integrated lesson is properly applied.

Kogi State which is the location of this study has an economy based on subsistent farming, small scale manufacturing and government driven economic activities. Kogi State is said to be among the six poorest states in Nigeria. When it comes to educational quality, Kogi is generally performing no better and no worse than the average Nigerians, but this still means that students are not acquiring sufficient academic skills in creative art through ICT. Despite the fact that majority of art teachers in Kogi State are now qualified, only few have adequate knowledge in ICT among which low levels of numeracy and literacy skills, as well as inadequate knowledge in their chosen areas of subject specialization are common place (Gannicott 2008). Based on the aforementioned points, the researcher is of the view that, there is the need to examine creative art teachers' perception on the utilization of information and Communication Technology for teaching Creative Arts in secondary schools in Kogi State.

Scope and Delimitation of the Study

This paper focused on Junior Secondary Schools because it is at this level of education that cultural and creative Arts is offered in schools in the three (3) Senatorial Districts of Kogi State. This study is further delimited to the cultural and creative art teachers within the three Senatorial Districts of Kogi State, namely: Kogi Central, Kogi East and Kogi West.

Theoretical Framework

This paper was guided by the theoretical framework hinged on the learning theory of Siemens (2004). The theory is of the opinion that, learning theories now need to move into the digital age to enable educators begin new thinking about learning and consequently make more effective use of ICT in a connected world. Siemens's (2004) learning theory also advocated that, ICT is used to achieve better learning outcomes or a more effective assessment of outcomes, or a more cost-efficient way of bringing the learning environment to the learners through e-learning.

Application of ICT in Teaching

No matter how undeveloped a country may be, it recognizes that ICT development is the key to future prosperity. Therefore, teachers' pedagogical content in this era of technological advancement must develop to take account of ICT, noting that the speed and extent of the development can vary between teachers depending on their degree of confidence and competence with these technologies (Kennewell & Beauchamp, 2008). Ajelabi (2005) opined that, individual differences among learners can influence the outcome of instruction. In recent times, many researchers have lamented on the integration of ICT into the curriculum as a major factor for curriculum developers. Some based their criticism on teachers not been taught in their training institutions, inability of teachers to decide the appropriate use of it for instruction, lack of teachers' knowledge of subject matter and so forth.

According to Kemmis et al. in Telia et al., (2007), there are three main approaches to ICT which can be taken by teachers. They are as follows:

- i. Integrated Approach: planning the use of ICT within the subject to enhance particular concepts and skills as well as to improve students' attainment of the set objectives. This involves a careful and considered review of the curriculum area, selecting the appropriate ICT resources which will contribute to the aims and objectives of the curriculum and scheme of work, and then integrating the use of relevant lessons,
- ii. Enhancement Approach: planning the use of an ICT resource which will enhance the existing topic through some aspects of lessons and tasks. For

example, using an electronic white board for presenting theory about a topic. In this approach, the teacher plans to complement the lesson with an innovative, presentation method to promote class discussion and visualization of problems.

- iii. Complementary Approach: using an ICT resource to empower the pupil's learning, for example by enabling them to improve their class work by taking notes on the computer, or by sending home work by email to the teacher from home or by processing their homework.

Therefore, educators have shown concern on how instructional needs are met while making use of ICT as a mode in instructional delivery. Some amongst many ways in which include the following:

1. Computer Managed Instruction: This refers to programme that evaluate and diagnose students need, guide them through the next step in learning and record their progress. Onasanya (2009) citing Harold (1981) classified the functions performed by computer managed instruction into two, they are: the function support; for basic users, including students, instructors, administrators and curriculum developers and evaluators while the other is the instructional management related functions such as; diagnosis of students, making prescription based on results of test, monitoring the performance of students, allocating or scheduling the instructional resources specified by the prescriptive process and reporting through storage in the data base for records.
2. Computer Aided Design (CAD): These are graphics software which offers a variety of 3-dimensional modeling and visualization features. They allow images to be rendered completely, dangerous events to be simulated and making tedious tasks to be easier and less time consuming.
3. Computer Assisted Instruction: Though popularly referred to as CAI, it has several nomenclatures such as Computer Assisted Learning (CAL), Computer Based Learning (CBL), Computer Based Training (CBT), etc. It is an interactive technique which allows computer to be used for presenting instruction and also monitor the process of presentation. It can be used in the classroom in the area of drill and practice, tutorial, simulation demonstration, designing, data collection, analysis and games.
4. Programming: this is the art of conceiving a problem in terms of the steps to its solution and expressing those steps as instruction for the computer to follow. Students and teachers can develop their programme using special computer programmes like: BASIC, FOTRAN, COBOL, etc.

Therefore, knowledge in the use of computer technology such as privacy and artificial intelligence, skills in flow charting, skills in software and hardware maintenance, etc. would also be of benefit in the process of using ICT for classroom instruction. Teachers should endeavor to integrate ICT in teaching as it provides different modality to instruction and also makes it less cumbersome.

Art Education (Pedagogy) and Technology in the 21st Century

Today, the word “technology” evokes a very different meaning. It conjures images of whirling lights and bundles of wires rather than simple machines carrying out delicate tasks that are beyond human expertise. Similarly, the word “art” has also undergone a rebirth; it now evokes images of digital art as well as classical paintings and sculpture. Where architecture was perhaps the best example of this marriage of art and technology, today computers are the new face of this union.

Art and technology are inexorably linked in that as one evolves, so does the other. This means not just changes in the way that art is created, but in the way that it is viewed, taught and learned. There are many ways that technology has influenced the way that we appreciate and learn about the arts.

Research Design

The paper is purely quantitative because it is numerical in nature as data were obtained through questionnaire. The study employed descriptive research design method which is usually prompted by the need to know what the current situation is. Descriptive method is used to describe a situation or an area of interest in order to obtain the understanding of the present condition. This method allows the sampling of the opinions of the respondents who currently teach cultural and Creative Arts in junior secondary schools of Kogi State.

According to Kothari and Gaurav (2019), descriptive research includes survey and fact finding enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs as it exists at present. In social science research, we researchers often adopt descriptive research studies. The main characteristic of this method is that the researcher has no control over the variables; the researcher can only report what has happened or what is happening. This study is therefore premised in this regard.

Question One: What are the ICT resources available for teaching Cultural and Creative arts in secondary schools in Kogi State?

Facility	Kogi Central					Kogi East					Kogi West				
	No Access	Access at home	Access in School	Statistics		No Access	Access at home	Access in School	Statistics		No Access	Access at home	Access in School	Statistics	
	%	%	%	Mean	SD	%	%	%	Mean	SD	%	%	%	Mean	SD
Computer	55.0	10.0	35.0	2.70	3.056	30	10	60	2.30	.948	10	20	70	2.60	.699
Laptop	40.0	50	10	1.700	.6749	30	30	40	2.100	.875	10	40	50	2.400	.699
Internet	30	20	50	2.200	.9189	40	20	40	2.000	.942	10	20	70	2.60	.699

Printer	30	10	60	2.300	.9486	40	10	50	2.100	.994	20	20	60	2.400	.843
Scanner	40	10	50	2.100	.9944	60	10	30	1.700	.948	30	30	40	1.100	.875
Cumulative %	39	20	41			40	16	44			16	26	58		
Cumulative mean				2.200	1.3187				2.040	0.94				2.220	.763

Table 4.5: Accessibility of ICT Resources by CCA teachers in Kogi State

N=30

Source: Field work, 2020

The Table shows that in Kogi Central senatorial district, 39% attests that there are inadequate ICT resources (mostly computer). Forty one percent (41%) of the respondents reported having some ICT resources in their schools (mostly printers), 20% responded to having one or more of these resources at home. In summary, a cumulative mean of 2.700 which is above the benchmark and a deviation of 1.319 within the respondents, says they either have different ICT resources available at school in Kogi central senatorial district.

The Table also illustrates the respondents' perspective in ICT resources state in their respective schools. Result shows that, most schools have computer with 44% of respondents attesting to that, with a mean of 2.300 which is a bit higher when compared with that in Kogi East Senatorial District.

Lastly, the table shows that most schools in Kogi West senatorial district have a higher percentage of ICT resources such as; Computers and Internet services at their schools as obtained from a large number of the respondents. This can be seen at a cumulative percentage of 58 with a mean of 2.6000 which is significantly above the mean value of 2.22. Only 16% of the cumulative percent says these ICT resources are not available.

The ICT resources for teaching Cultural and Creative arts in secondary schools in Kogi State

Result shows that, in Kogi Central, 55.0% attested to non-availability of ICT resources with the cumulative percentage of 39.0 that they do not have any computer available for use which is the primary ICT tool, while in Kogi East it is recorded that there is computer availability in schools with 60% and a cumulative of 44%, but in the western part of the state, an ample number of respondents (70%) represents both the availability of computer and internet connection for use at school with a cumulative percentage of 58%. Outcome from this study is in line with reports from other researchers that readiness of ICT in the Sub-Saharan Africa is still very low with most countries lagging behind in connectivity because of insufficient development of ICT infrastructures (Olowoyeye, 2016). Just as ICT is indispensable in most subject matter so it is in creative art. It will be impactful in integrating skills, gaining new knowledge

in several ways presentation of design and works if ICT is implemented in schools in Kogi State (Kamal and Banu, 2010). Findings from this study shows that the extent at which ICT resources are being used by teachers of Creative and Visual art across Kogi State is very poor.

Summary of major findings

This paper identified that, most of the CCA teachers in Kogi State do not have basic ICT resources such as internet and computers at their disposal for teaching. This is definitely hindering the development of cultural and creative art teachers and thereby causing a significant lagging behind of teachers in this digital age.

Conclusion

This paper elucidates the current state of teacher of Cultural and Creative Arts in using ICT for teaching and learning. This study which focused on 30 different public and private secondary schools in Kogi State was able to find out that many teachers were lagging behind in the use of ICT in teaching Cultural and Creative Arts, however, many do have different of skills/experience in browsing the Internet, while some have experience in the use of Microsoft programs such as Excel and word. These skills are quite important, but when internet connectivity and computer are not available for use by the teachers in the school as found in this research, effective teaching and learning activities cannot be achieved and consequently, the teachers will not be able to compete with their counterpart in different secondary schools across the world. Finally, this research points the government of Kogi State and proprietors of private schools to brace-up to ameliorate this situation by providing basic amenities for learning.

Recommendation

Based on the findings that emanates from the paper, recommendation were proffered:

- i. Government, school proprietors of privately-owned schools should do everything possible to raise the standard of the teachers to enable them in carrying out their responsibilities effectively.

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