



CHALLENGES OF INFORMATION COMMUNICATION TECHNOLOGY AND ITS APPLICATION IN VISUAL ART INSTRUCTIONS IN SECONDARY SCHOOLS IN IKWO L.G.A. OF EBONYI STATE

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Abstract

The influence of ICT in education cannot be over emphasized as the global practice has shown; computer is playing great role in advancing teaching and learning in various fields of life. Fine and Applied arts cannot be exempted from this global acceptance of technological development. Teaching and learning adopts this convention to adequately inform learners in fine arts for better creative development. This study identified some challenges in using ICT in art instructions in Ebonyi State, such as lack of ICT facilities in schools, epileptic power supply, and lack of ICT compliant art teachers among others. The study therefore adopted a descriptive survey and questionnaires were the instrument for data collection. The analyses were made in simple percentages. The study further recommended the obvious need to adequately provide ICT facilities to schools for effective teaching and learning in fine and applied arts and other subjects in general education, It also advocated for teacher training curriculum models to include use of ICT for better service delivery, there is need for adequate power supplies and its alternatives to be provided to sustain the process.

Keywords: ICT, Visual Arts, Instruction, Application and Innovation.

Introduction

Studies carried out have pointed to the various challenges faced by art instructors and educators in applying digital approach in delivering art instructions in secondary schools. This has been an impediment in the normal student-teacher classroom centered programmes, Orogwu (2005) affirms that help can come through information and communication technology (ICT) by establishing computer educational programmes such as computer assisted instruction (CAI) and computer assisted learning (CAL) which have also been discovered to solve the problems of teaching and learning globally. The innovative concerns have plunged art educators into various efforts to seek computer aided instructions to activate the creative strengths of the young and prospective art practitioners in Nigeria and in Ikwo local government area respectively. Science and

technology as aid to artistic creativities portend generational development where the inter marriage of art and technology may provide space for industrial strives. Today Artificial intelligence have subsumed all computer aided instructional facets and created a high tech activated computer mechanism to enhance artistic instructions. The computer coded technology has encouraged advancement in the industrial revolutionary period. Art instructions and productions have joined the global train to fuse into artificial intelligence concepts. However, some parts of the globe have not keyed in perfectly due to certain peculiar challenges. This study has chosen to limit its navigation to ICT application in visual art instructions.

This study is to provide clues towards identifying challenges facing digital teaching and learning programmes in visual arts which can bring about



education stress free system, and as well save time and money. It goes a long way to bring about conservation of both human and material resources and will also bring about efficiency and service delivery in the educational system.

The integration of ICT in the teaching and learning of fine and applied arts in Ikwo Local Government Area is with the intention of making the subject easy and realistic for learners.

Information and communication technology popularly referred to as ICT is relatively a welcomed concept in the educational system. It is a combination of three key words that have different meanings but related in operation. Some authors have given good definitions of the concepts such as Okwuanaso (2004) who sees information as data that have been put into a meaningful and useful context and communicate to recipients who make use of them for meaningful decisions. Information is data utilized, in his opinion, Nwachukwu (2003) says that information is a message received and understood. He further classifies information as any communication or representation of knowledge such as facts, data or opinion in any medium or form, including textual, graphics, cartographic, narrative or audio visual.

Chukwuanukwu, (2008) affirms that information is a fact, figure, idea, and expression of knowledge or skills passed across to an end user. It can be seen as that message that is been sent across with the intention of receiving a feedback either in a positive or negative structure. Meanwhile, it is that fact and the main idea that an individual transmits. Information can be seen as a product of communication which is the process by which people exchange information or express their thoughts and feelings. By this, one can understand the mind of the nearest person.

Communication is derived from a Latin word "Communicae" which means "to share". Today communication is seen in different ways depending on the area of specialization. Ogbonnaya and Chukwuanukwu (2003) define communication as an inter-personal

relationship either direct or indirect involving the transfer of information. Communication is also expressed as a medium adopted to send information across to the receiver.

Orogwu (2005) states that communication is the transmission of information from the sender to a receiver and from the receiver to a sender, however, Ugwu and Nwafor,(2000) says that the word communication is quite common amongst people of different backgrounds. In this case, the meaning it makes to each group depends on their perception of the world and development.

At the heart of modern information management, keeping every one informed is a positive way of ensuring effective leadership, cooperation, co-ordination, support and commitments. Orogwu, (2005) further states that people must understand what is going on, what to do and when to do It through effective communication.

Rickly, (1990) avers that communication is a process of transmitting information from one person to another, he said that communication is a process of sending a message in such a way that the meaning received is close in meaning as possible to the message intended.

Iheonunekwu, (2003) notes that communication is the inter change of ideas, facts and emotions by two or more persons through the use of words, letters and symbols. It can be regarded as a process of maintaining uninterrupted flow of information.

Technology is man's answer to a great deal of his cosmic and environmental limitations. It is his ingenious expression, his projection beyond the limitations of his own faculty by which he exercises planned control over some of his environmental impediments.

Orogwu (2005) defines technology as the application of the ideas of science or scientific principles to the solution of problems in our modern time.

Elom and Nwovu, (2007) views technology as the scientific knowledge put to a practical use in



solving man's problems. Elekwa, (2003) sees technology as that which involves the practical study of materials, sources of energy and natural phenomena, with the ultimate intention of applying these to services of human activities to improve them. Awoke (2005) further states that technology is the application of the discoveries of the science for the facilitation of man's environmental and general problems, e.g. in education. It is all about the transformation of knowledge obtained through scientific empiricism and skills in solving human problems resulting in overall education challenges and national development hitches.

In all, information and communication technology (ICT) is all about building digital efforts together through the help of technological appliances, computers, television, over-head projectors, slide projectors, audio visual materials, files, strip projector and multi-media approaches among others.

Computer technology which provides avenue for ICT interface is a digital system structure designed to function like human brains with the single advantage of being manipulated to suit the user at a given time. It has helped to place man in a higher capacity and as a medium of communication in institutions, it can be manipulated to provide the following ICT services: -

Computer Based learning programmes (CBL),
Computer assisted instruction (CAI),
Computer managed learning (CML),
Computer scheduled education (CSE).

Meanwhile, like other information and communication technological appliances, the above could aid in a great number of ways to ensure effective teaching and learning of Fine and Applied Arts in Secondary Schools in Ikwo Local Government Area. In

Statement of the Problem

There is an absolute lack of ICT knowledge among teachers in the secondary schools in Ikwo apparently because of poor and inadequate ICT infrastructures. The few ICT compliant teachers

may not instruct effectively because of inadequate power supply within and around Ikwo local government area. Innovative art teaching and learning have become impossible for lack of artistic and technological infrastructures and experiences thereby limiting creative development among students. These mentioned problems have prompted the study.

Purpose of the study

1. To find out the available art teachers who are computer compliant.
2. To determine the level of competence in the use of ICT facilities by art teachers for the teaching and learning of Fine and Applied Arts in secondary schools in IKwo LGA.
3. To access the availability of ICT facilities in secondary schools in Ikwo LGA.
4. To find out the degree of power supply and its alternatives in Ikwo LGA.
5. To assess the extent of government intervention in the provision and maintenance of ICT facilities in secondary schools in Ikwo LGA.

Research Questions

1. Are there computer compliant art teachers in secondary school in Ikwo LGA?
2. What is the level of competence in manipulating ICT facilities among the art teachers?
3. Are there ICT facilities available in the secondary schools in Ikwo LGA.
4. What is the degree of power supply and its alternatives in the secondary schools in Ikwo LGA?
5. Do government provide and maintain ICT facilities in secondary schools in Ikwo LGA?

Scope of the Study

The study is restricted to challenges of Information communication technology and its Application in Visual Art Instructions in Secondary Schools in Ikwo L.G.A. of Ebonyi State.

The study covered the ten selected secondary



schools in Ikwo Local Government Area of Ebonyi state, thus: Enyi Community Secondary school Enyibuchiri Alike., Community Secondary School Noyo Alike, Ikwo., Urban Community Secondary School, Ndufu Echara, Ikwo. Community Secondary School, Ndufu Alike., Ikwo High School Ikwo., Girls High School Agubia Ikwo., Community Secondary School Agubia Ikwo., Community Secondary School, Okpuitumo Ikwo., Victor International Secondary School, Ekeke, Echara., Ebonyi State College of Education Staff Secondary School, Ikwo.

Population of the Study

The population of this study consisted of six students and six teachers which makes it twelve per school, making 120 visual Arts.

Sample and sampling Technique

The whole of 120 respondents of the population were used. They were drawn from teachers and students in Ikwo rural area and Ikwo urban area.

Instrument for Data collection

The questionnaire forms the instrument for the data collection. The questionnaire consisted of two parts, part A and part B. Part A sought for information on the personal data of the respondents while part B consisted of questions on the research topic raised for the study.

Research Question I

Are there available ICT facilities in Secondary Schools in Ikwo Local Government Area. (Are there any ICT facilities in your school).

RESPONSE	FREQUENCY RESPONSE	OF	PERCENTAGE
Agree	30		20%
Disagree	90		80%
TOTAL	120		100%

The above table describes that 20% of the respondents agreed that they have some ICT facilities, while 80% of the total respondent strongly disagreed that they have no ICT

Validation and Reliability of Instrument

The questionnaires were sent to experts in measurement and evaluation for face and content validity. While the reliability was established using cronbach alpha at 0.72 coefficient.

Methods for Data Collection

The questionnaires were shared out to the respondents directly and were collected back after a while. This was done to ensure that, there was no loss of the questionnaires.

Methods of Data Analysis

The data collected were analyzed using simple percentages (%). The item response with the highest percentage was adjudged.

The formular for simple percentage used is:

$$F/N \times 100$$

Where F = Frequency

N = Sum of cumulative frequency.

% = Percentage.

The researcher distributed one hundred and twenty (120) typed questionnaires and was returned which stands for 100% return. The tables were presented and subsequently discussed in each of the research questions.

Facilities in their schools. Therefore the greatest percentages of the secondary schools in Ikwo have no ICT facilities in their schools.

**Research Question II**

To what extent do art teachers and students have knowledge of ICT facilities

RESPONSE	FREQUENCY OF RESPONSE	PERCENTAGE
Agree	20	10%
Disagree	100	90%
TOTAL	120	100%

According to the table number II. 10% agreed that their art teachers have knowledge of ICT while 90% of the respondents strongly

disagreed that their teachers have knowledge of ICT facilities.

Research Question III

Does ICT in any way aid instruction in art teaching & learning in secondary schools in Ikwo Local Government Area

RESPONSE	FREQUENCY OF RESPONSE	PERCENTAGE
Agree	100	95%
Disagree	20	5%
TOTAL	120	100%

From the table III, 95% of the respondents strongly agree that ICT can aid instruction in fine

and applied arts while 5% of the less respondents strongly disagree that ICT can aid instruction in art.

Research Question IV

Does irregular power supply hinder the use of ICT in the teaching and learning of arts in the secondary schools in Ikwo Local Government Area.

RESPONSE	FREQUENCY OF RESPONSE	PERCENTAGE
Agree	105	93.5%
Disagree	15	6.5%
TOTAL	120	100%

It is observed that 93.5% of the students' respondents strongly agreed that irregular power supply of electricity hinders the effective utilization of ICT facilities in the teaching and

learning of arts, while, 6.5% of the respondents strongly disagreed that irregular power supply hinders art instruction.

Research Question V

Does government make provisions for ICT facilities in Secondary schools in Ikwo LGA?

RESPONSE	FREQUENCY OF RESPONSE	PERCENTAGE
Agree	14	5%
Disagree	106	95%
TOTAL	120	100%

From the table above 95% of the respondents strongly disagree that government



make provision for ICT facilities in their schools, while 5% of the respondents strongly agree that they have ICT facilities in their school provided by government.

Findings

The study found out that there are inadequate ICT facilities in the secondary schools in Ikwo LGA. 80% affirmed to the statement while 20% agreed that there are few computers supplied in some schools.

It is also affirmed that students and teachers in secondary schools on Ikwo LGA are not ICT compliant thereby making learning difficult. 90% of the respondents strongly agreed that most teachers cannot manipulate the existing computer systems during classroom instructions.

ICT application is a technological process to aid teaching and learning of creative arts, here the respondents affirmed that it is a necessary tool for better art instructions. 95% strongly agreed that ICT can artistic instructions.

The study pried into the availability of power supply, the respondents strongly agreed that lack of power supply have adversely hampered the use of ICT facilities during instruction. 93.5% strongly agreed that poor supply of electricity have hindered art instructions.

The supply of ICT infrastructures are grossly inadequate as many schools do not have the facilities, 95% of the respondents affirmed that those ICT facilities are not adequate in schools. The government has failed on their part to

provide these facilities as it is their responsibility to equip institutions of learning. The expensive nature of the facilities has made some schools who on their own may need to purchase.

Conclusions

The teaching and learning of visual arts can be made more palatable through the application of ICT. The classroom can be lively when students are taught by computer aided design in CorelDraw, photo-shops among others. The computer design process is faster and encompassing, it provides the learners with vital tools to achieve high aesthetics and three dimensional pictures. ICT amidst its challenges in schools provides a better learning platform for learners.

Recommendations

1. The government and non-governmental organizations shall make it a point of responsibility to meet up with their social responsibilities towards educational development by adequately providing schools with ICT facilities.
2. There should be scholarships given among students to encourage further and advanced studies to become proficient in ICT.
3. ICT seminars and workshops be organized in secondary schools in Ikwo LGA to train both students and teachers in ICT operations.
4. A wider orientation becomes very imperative for a larger number in Ikwo and surrounding to cue into ICT for knowledge advancement.

References

- Chukwuanukwu, A. N. (2008). Foundations of Business Administration. Onitsha, African Fep Pub. Ltd.
- Edacuogho, D. (2007). Educational Reforms in Tertiary Institutions through Application of Information and Communication Technology Optimization of Services Delivery in the Education Sector. Issues and Strategies. Nsukka: University Trust

Publishers.

- Elom, O. And Nwovu, C.N. (2007). Science and Technology in the Society. (A Millennium Approach), Enugu, Tink Graphics Publishers Company.
- Elekwe, J.K. (2003). Computer Applications: Practical Handbook. Enugu, Our saviour Press Ltd.



- Federal Republic of Nigeria. (1998). National Policy on Education. Lagos: Nerd Press.
- Gbamanja, S.P. (1998). Modern Method Science Education: Theory and Practical. Owerri: Totan Publishers Ltd.
- Inyang, A. M. E. (1988). Essentials of Education Technology A Handbook for Educators and Media Practitioners. Uyo, Legacy Press Ltd.
- Ifere, C, Ukwa, C.N. & Nwakpa, M.N (2006). Basics of Computer Science: Enugu, Celex Printers & Publishing (Nig.)
- Iheonunaekwu, S, (2003). Entrepreneurship Theory and Practice: Owerri, Crown Publishers Nigeria Ltd.
- Mkpa, M.A. (2003), The Learners Centred Teaching Method: Owerri: Bay 102 Publishing International.
- Mylton, J. O. (2003). Effective Management: An Practical Manual for Managers. Ibadan, Dura press Ltd. Educational Technology: Ikegan Page Ltd.
- Nelson, O.A. (2005). Computer Technology, Repairing Personal Computers (PCS) and Users Technical Companion: Enugu: Nelson Publishers.
- Nwachukwu, P.O. (203). Entrepreneur in Vocational Education. Enugu, IT Ozybel Publishers.
- Ogbonnaya, E. and Chukwuanukwu, A.N. (2009). Manpower Development in Nigeria through Industrial Training: Enugu, Tinks Graphics Publishing Co.
- Orogwu, A. A. (2005). Educational Technology (Principles and Practice): Hipuks Additional Press, Enugu.
- Okwuanaso, R.N. (2004). Micro-Computers Studies for Beginners. Spiritan Publishers: Nsukka.
- Ogbaekirigwe, A. C. (2009). Entrepreneurship in Vocational Business Education: Enugu: Cheston Agency Ltd.
- Ricky, C. S. (1990). Beginners Guide to Data Processing Technology. Idike Press Nigeria. Enugu.
- Sunday, A.N. (2001). Teaching in Nigeria A Dynamic Approach: Enugu: Cheston Publishers Nigeria Ltd.
- Udeoiisa, M.C. (2008). Information Age and The World of Work, Implications for Youth Empowerment. A Paper Presented at the First International Conference on Education in the Information Age. Global Challenges & Enhancement Strategies.
- Ugwu, A.B.C, and Nwafor, O. (2000). Essentials of Education Technology. Enugu: Fred Ogan Publishers.
- Ughamadu, K.A. (1998). Educational Technology Concepts Principles and Principles Applications: Onitsha, Nig. Kimensk O. Education Publishers.