

# Enhancing Creativity Through Information Technology: A Case Study Of Visual Arts Education In Senior Highschools In The Tamalemetropolis

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**Abstract:** The study examined the place of ICT education in teaching visual arts, with specific attention to senior high schools in the Tamale Metropolitan Area of Ghana. The study looked at how educators and learners use computers in the teaching and learning of visual art.

**Materials and Methods:** A descriptive survey design was employed, and the sampling technique used was purposive sampling. where a questionnaire was used to collect data from one hundred and fifty-seven (157) students. The data was analyzed using Statistical Package for Social Sciences (SPSS) Software version 18 for Windows to translate the data into percentages and frequencies for interpretation and findings.

**Conclusion:** The study concluded that using ICT in visual arts teaching and learning was critical knowledge and skills for using technology in the teaching and learning of visual arts are required as prerequisites. Finally, multimedia software needs to be applied in this direction.

**Keywords:** education, ICT, visual arts, teaching, learning.

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## I. Introduction

Integrating information and communication technology (ICT) has become a high priority in Ghana and other parts of the world (UNESCO, 2002; Jamieson-Proctor, Burnett, Finger, & Watson, 2006). Ghana's government has strongly emphasized the role of ICT in contributing to the country's economy. The country's medium-term development plan, captured in the Ghana poverty reduction strategy paper (GPRS 1 and 11), and the education strategic plan (2003–2015), suggest using ICT to reach out to the poor in Ghana. In 2004, parliament passed into law Ghana's "ICT for Accelerated Development" (ICT 4AD) policy (the Republic of Ghana 2003), which is currently at various stages of implementation. This policy represents the vision of Ghana in the information age, especially in the area of education.

Indeed, using ICT in visual arts teaching and learning in Ghana is a novel experience for both students and teachers. Despite the coming into force of the 2007 teaching syllabuses, which place some emphasis on ICT integration in schools, instructional procedures and ICT goals for teaching and learning remain disparate, and this has led to genuine concerns from enthusiastic followers of the ICT integration process about whether school ICT programs serve their intended purpose of exposing students to the technological tools that would enhance skill acquisition and promote mastery over the subject matter.

Considering the changing trends in artistic expressions and the application of skills in a modern society where digital media are merging with traditional media, the current status of ICT integration is a disservice to the study of visual art in schools. The job market has already started demanding skilled artists with ICT competencies to take care of the country's emerging technology-based art and design-related industries. In view of this, it is not illogical to conclude that, outside of proper ICT proficiency, creative ideas will be of little value; this amplifies art educators' difficulty in performing their duties in the present era. The art educator's responsibility is to ensure that technologies in schools enhance or perhaps redefine art education programs so that students can stay current with visual art and the technologies required to be more creative.

A study by Renata and Carrie (2008) revealed broad diversity in individual teachers' social, artistic, and educational values, attitudes, and beliefs about ICT, leading to widely diverse approaches to their personal and professional use of technology. Renata and Carrie(2008) study explored several issues, such as whether teachers believe it is essential to integrate ICT in their teaching, the role ICT plays in the classroom, the issues teachers are experiencing, and how they approach their ICT learning. Answers to these questions indicate that effective ICT professional development for teachers must take account of their values, attitudes, beliefs, and perceptions of ICT and their personal and professional learning.

## II. Material And Methods

The purposive sampling approach was employed to select participants for the study. The sample was made up of senior high school students in their third year offering visual art in the Tamale Metropolitan Area from October 2011 to October 2012. A total of 157 final year Visual Arts students made up of three senior high schools, namely Tamale senior high school, Kalpohin senior high school, and Vitting senior high school,

**Study Design:** A purposive sampling approach was employed to select participants for the study.

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**The study lasted from October 2011 to October 2012.**

**Sample size:** 157 students.

### Procedure methodology

A set of questionnaires was developed with the help of Visual arts teachers, other Visual arts experts, Information Technology experts, and colleagues to collect data for the study. It was made up of closed-ended questions. The closed-ended questions requested the selection of the option that best described their opinion on the items. There were four-point Likert scale items on the questionnaire.

The scope and face validity of the questionnaire were certified by ICT experts in instructional design for learning. The repeated method was utilized to test the reliability of the instrument. It was given to a group of students at one time to answer. Then, the instrument was given to the same group of students a second time for their responses. The results obtained from the two administrations were quite similar, confirming the instrument's reliability. The test-retest reliability attained was 0.8 (to ensure high reliability, the figure should be between 0.8 and 1.00). The testing of the instrument indicated that the instrument was appropriate for the study.

### Statistical analysis

The collected data was organized, edited, and coded for analysis using the Statistical Package for Social Sciences (SPSS) version 18 for Windows. The interface for data analysis was designed from the variable view of the SPSS data editor, where each of the items in the student's instrument was given a unique name that allowed for accessible data inputting and analysis.

## III. Results

The participants' results relating to the study's research question have been presented in Table 1. The study sought to find the significance of information technology in learning the Visual Art Programme in the senior high school in the Tamale Metropolis. The responses from the data collected from students are shown in Table 1.

**Table 1: Students' Perceived Significance of ICT**

S/N	Item	SD	D	A	SA
		Freq (%)	Freq (%)	Freq (%)	Freq (%)
1	I enjoy using computer.	9(5.7)	7(4.5)	47(29.9)	94(59.9)
2	I am tired of using computer.	92(58.6)	45(28.7)	12(7.6)	8(5.1)
3	I would be able to get a job if I used a computer.	3(1.9)	3(1.9)	56(35.7)	95(60.5)
4	I would work harder, if I used a computer.	5(3.2)	23(14.6)	64(40.8)	65(41.4)
5	It takes a long time to finish when I use a computer.	67(42.7)	56(35.7)	23(14.6)	11(7.0)
6	I can learn many things if I use a computer.	3(1.9)	2(1.3)	48(30.6)	106(66.2)
7	I enjoy lessons on computer.	5(3.2)	1(.6)	64(40.8)	87(55.4)
8	I believe that if teachers use computers to teach in school. I will enjoy school.	5(3.2)	7(4.5)	68(43.3)	77(49.0)
9	I need to learn how to use a computer.	1(.6)	1(.6)	47(29.9)	108(68.8)
10	I think computers are elementary to use.	5(3.2)	1(.6)	82(52.2)	41(26.1)
11	I am always nervous when I use a computer.	44(28.0)	67(42.7)	35(22.3)	11(7.0)
12	I do not need to use a computer in my daily life.	104(66.2)	37(23.6)	10(6.4)	6(3.8)
13	Using ICT makes lessons more engaging.	4(2.5)	4(2.5)	56(35.7)	93(59.2)
14	Using ICT in visual Art is not enjoyable.	114(72.6)	28(17.8)	12(7.6)	3(1.9)
15	Using computers makes lessons in visual Art more fun	15(9.6)	15(9.6)	66(42.0)	61(38.9)
16	Using ICT makes the lesson more diverse.	22(14.0)	50(31.8)	51(32.5)	34(21.7)
17	Using ICT in visual Art improves the presentation of materials.	4(2.5)	11(7.0)	72(45.9)	70(44.6)
18	Using ICT in visual Art makes the lesson more difficult.	108(68.8)	44(28.0)	4(2.5)	1(.6)
19	Using ICT in visual Art reduces students' motivation.	73(46.5)	62(39.5)	10(6.4)	12(7.6)
20	Using ICT in visual Art impairs students learning.	63(40.1)	34(21.7)	33(21.0)	27(17.2)

*SD = Strongly Disagree; D = Disagree; A = Agree; SA = Strongly Agree*

A cursory look at Table 1 shows that respondents agree with items such as "I enjoy using a computer," "I would be able to get a job if I use computers," "I would work harder if I use computers," "I can learn many things if I use computers", "I enjoy lessons on the computer, "I believe that if teachers use computers to teach in the school, I will enjoy school", "I need to learn how to use a computer," "I think the computer is very easy to use", "Using ICT makes lessons more interesting", "Using computers makes lessons in visual art more fun", "Using ICT makes the lesson more diverse", "Using ICT in visual art improves the presentation of materials", which were numbered from 1, 3, 4, 6, 7, 8, 9, 10, 13, 15, 16 and 17 respectively in Table 1, had percentage scores ranging from 54.2% to 98.7%.

On the other hand, respondents disagreed with negative statements such as "I am tired of using the computer", "It takes a long time to finish my work when I use a computer", and "I am always nervous when I use a computer", "I don't need to use the computer in my daily life", "Using ICT in visual art is not enjoyable" "Using ICT in visual art makes lessons more difficult", "Using ICT in visual art reduces students motivation", "Using ICT in visual art impairs students learning", numbered 2,5,11,12,14,18,19 and 20 respectively, in Table 1 which have percentage scores also ranging from 61.8% to 96.8%.

From the analysis made based on Table 1, it was clear that students were aware of the significance of ICT usage and its ability to create future job opportunities. It can be concluded that the respondents have strong awareness of the potential of ICT in improving the learning and teaching of Visual Arts. This makes the inclusion of ICT in the teaching and learning of Visual Arts a significant one. The proper teaching environment is therefore created to influence students' attitudes towards the study of ICT while in school. This verdict is in line with the finding made by Sandholtz *et al.* (1997:4), Literature from Australia (Newhouse, 2002), and the United Kingdom (Loveless, 2002).

#### **IV. Conclusion**

In the light of the above findings, it can be concluded that the failure of teachers to use computers in their teaching and the lack of internet connectivity in schools contribute negatively to the integration of ICT in the Visual Art Programme in the senior high schools. Similarly, limited Multimedia Tools and teachers' values, attitudes, beliefs, motivation, discipline, and professional training are significant factors that contribute to low student capability levels in using software applications in schools.

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