ENHANCING TEACHING EFFECTIVENESS THROUGH THE USE OF INFORMATION COMMUNICATION TECHNOLOGY

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Abstract

The study investigated the use of Information Communications Technology in enhancing effective teaching and learning of Basic Technology. A structured questionnaire was used to collect data while data collected were analyzed with the use of descriptive statistics. The study revealed that the use of ICT has potential of enhancing effective teaching and learning. However, challenges such as lack of poor funding, poor access to ICT and inadequate personnel limited the effectiveness of ICT application in teaching and learning. Therefore, recommendations were made based on these findings.

Keywords: Teaching Effectiveness, Information Communications Technology, Basic Technology

Introduction

Several countries have introduced Information Communication Technologies (ICT) into schools via different courses of action. As new concepts of learning have evolved, teachers are expected to facilitate learning and make it meaningful to individual learners rather than just to provide knowledge and skills (Abe & Adu, 2019; Aluko, 2020; Peter & Rexwhite, 2012). Information and Communication Technology refers to range of technologies involved in information processing and electronic communications. It includes all those electronic devices that are used in broadcasting, telecommunication and all other electronically mediated information gathering and communicating systems. Information and Communication Technology (ICT) is the combination of networks, hardware and software as well as the means of communication, collaboration, and engagement that enables the processing management and exchange of data and information (Abd Rahim & Shamsiah, 2008; Agbatogun, 2012). The role of information communication technology in teaching and learning cannot be overemphasized. Studies revealed that application of Information Communications Technology (ICT) in the teaching and learning through the use of various software has the potential to promote effective teaching and learning (Soneye, 2012).

Despite this awareness of the capabilities of ICT, the effect of these new information communication technologies in the teaching and learning of Basic Technology is yet to be explored. Therefore, this

research aimed to investigate the nexus between information communication technology and teaching effectiveness, specifically the teaching of Basic Technology.

Research Methods

The study used the survey research design and interview. These methods were used in the study because it was considered appropriate for collecting data from a given population with an intention to determine the opinion, attitudes and perception of personnel considering the variable wider study. The random sampling technique was used in selecting three public secondary schools and four private secondary schools in Ilorin West Local Government Area of Kwara State, Nigeria. Questionnaire was to collect data while data collected were analyzed using frequency counts,percentage and Arithmetic Mean.

Results and Discussion

The results of analysis of data collected are shown in the following tables; Table 1 shows the demographic characteristics of the respondents, table 2 presents result on the use of ICT in teaching of Basic Technology, while, table 3 shows the challenges of information technology in teaching and learning.

Table 1: Demographic Characteristics of the Respondents

Characteristic		**N**	**%**
	Male	110	36.79
Gender	Female	189	63.21
	Total	299	100
	19 – 30	108	36.12
Age	31 – 50	191	63.88
	Total	299	100
	NCE	90	30.10
Qualification	B.Sc Ed/B.A Ed	166	55.52
	M.Ed	43	14.38

	Total	299	100
	1 – 5 years	41	13.71
Experience	6 – 10 years	64	21.41
	Above 10 years	194	64.88
	Total	299	100

Table 1 shows that (36.79%) of the respondents were male teachers while (63.21%) were female. Also, 108 respondents which represent 36.12% were between 19 – 30 years of age while 191 respondents which represent 63.88% were age between 31 -50. representing 13.71% have 1-5 years teaching experience, also, 64 respondents which represent 21.41% have between 6-8 years of teaching experience while 194 respondents representing 64.88% have 10 years and above as teaching experience.

In addition, 30.10% of respondents are NCE holders, 55.52% are either B.sc (Ed) or B.A (Ed) holders while 14.38% have Master's degree. This shows that the majority of the respondents are B.Sc. (Ed) or B.A(Ed) holders. More so, 41 respondents

Table 2: The use of Information Technology in teaching of Basic Technology

S/No	**Statement**	**SA**	**A**	**D**	**SD**	$\bar{x}$	**Decision**
1.	ICT with the use of Internet facilities enable effective teaching and learning.	90	96	78	35	2.80	Agree
2.	ICT facilities like computer, projectors, slides etc makes learning of Basic Technology looks real.	55	84	98	62	2.44	Disagree
3.	Application of ICT in teaching and learning of Basic Technology has improvedthe quality of Education.	95	105	57	42	2.85	Agree
4.	E-learning has been introduced into the teaching and learning of Basic Technology.	56	69	114	60	2.40	Disagree
5.	ICT has made teaching and learningof	130	79	50	40	3.00	Agree

Basic Technology interesting.		
Overall Mean	**2.70**	**Agree**

Table 2 shows that the mean score of item 1, 3 and 4 were respectively greater than 2.5. This applied that the respondents agree that internet facilities are available for effective teaching of Basic Technology in school, application of ICT in teaching and learning of Basic Technology has improved the quality of education and teachers uses computers and projectors during teaching and learning of Basic Technology. While the means of item 2 and 4 were respectively less than 2.5. This implies that respondents disagree that with the two statements. The overall mean score of 2.70 signifies the overall acceptance that ICT pose positive Influence on the teaching and learning of Basic Technology.

Table 3: Challenges of Information Technology in Teaching and Learning

S/No	Statement	SA	A	D	SD	$\bar{x}$	Decision
6.	Lack of fund to Introduce modern ICT facilities in teaching and learning.	94	155	31	19	3.08	Agree
7.	Lack of skilled teachers to use ICT facilities in teaching and learning.	115	102	49	33	3.00	Agree
8.	Students do not enjoy class without the use of ICT facilities.	54	68	125	52	2.41	Disagree
9.	Teachers and Students lack proper orientation when ICT facilities arenot properly used in teaching and learning.	115	103	45	36	2.99	Agree

Table 3 shows that the mean score of item 6, 7 and 9 were respectively greater than 2.5. This applied that the respondents agree that poor funding, inadequate skilled teachers to handle ICT facilities, and lack proper orientation on the use of ICT facilities are major challenges in the application of ICT enhanced teaching-learning and improved the quality of education. Thus, the use ICT facilities ICT in teaching and learning. However, the mean of item 8 is less than 2.06, this implies that the respondent did not admit that Students do not enjoy class without the use of ICT facilities.

Conclusion and Recommendations

Finding from the study revealed that application of

promotes an active learning environment that is more interesting and effective for both teachers and students. Also, ICT application in teaching enable the learners to have control over their learning process. This is in line with the findings of Abe and Adu (2020), Norris et al., (2003) and Zhao and Cziko, (2001) who found positive relationship between application of ICT and teaching-learning process. However, the result showed that poor funding, inadequate skilled personnel, lack proper orientation on the use of ICT facilities and poor maintenance of available of ICT facilities hindered the effective use of ICT in teaching and learning activities. This is in agreement with the findings of (Al-Bataineh & Brooks, (2003) and Capan, (2012).

Based on the finding of this research, the following recommendations are hereby made:

i. Both teachers and students should have access to ICT facilities, and there should be regular training and seminars on the use of ICT.

ii. Government should provide adequate ICT facilities and internet service.

iii. Electronics libraries (e- library) should be established in all Secondary Schools.

iv. There should be curriculum review to promote and facilitate a the use of ICT in teaching and learning.

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