

**The Awareness and Readiness of Some Technical Education
Teachers to Engage Technology in Assessment at Kaduna
Polytechnic, Nigeria**

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Abstract

The use of technology in assessment is a trend that is fast gaining ground across the world. The expectation is that all stake holders in education by now should be familiar with the idea and with their expected roles in the practice, and should be ready to engage in it as soon as possible if they are not yet doing so. Reasoning alongside Bionco (2013) that the awareness of any education policy or practice helps teachers in their classroom practices and influences their performance generally, this paper seeks to investigate the level of awareness and readiness of the teachers of two of the colleges of Kaduna Polytechnic, Nigeria. The procedure engaged is the questionnaire, and the data generated from it was analyzed using the mean statistics method, being a measure of central tendency. The results obtained disclosed very shocking revelations including teachers' lack of basic computing knowledge, unawareness of their expected roles in the practice and even the lack of awareness of the concept of technology in assessment. The conclusion of the paper is that the teachers are not prepared to engage in the practice. Subsequently, the paper recommends that the institution should set up some drastic measures for the provision of basic computing equipment and knowledge for all staff within a given time frame, among other considerations.

Introduction

Information and Communication Technologies (ICT) can create new and open learning environments instrumental in shifting the emphasis in teaching from a teacher-centred to a learner-centred approach in which teachers move from being the key sources of information and transmitters of knowledge to becoming collaborators and co-learners while the role of students changes from one of passive to active learners (UNESCO, 2002). ICT have great potential for knowledge dissemination, effective learning and the development of more efficient education services. Generally ICT is capable of transforming teaching methods, expand access to quality education, and improve the management of education systems (World Bank, 2002). To be effective, especially in developing countries, ICT could be combined with traditional technologies such as books and radios and be more extensively applied to the training of teachers. ICT could also help in improving the quality of teaching and learning, sharing knowledge and information, introducing a higher degree of flexibility in response to societal needs, lowering the cost of education and improving internal and external efficiencies of the education system. Contemporary society demands more independent and responsible behaviour and much less routine execution of orders from people. To excel, and sometimes even to survive, people now need to be able to make responsible decisions in new and unexpected situations. Most of all, they need to continue to learn all the time which is not possible with traditional school learning methods.

Moreover, Individuals seek to use ICT for personal growth, creativity, consumption and wealth. They also need to be able to analyze mass media information critically and to use it productively. Individuals require knowledge and skills to search for information, to analyze, synthesize, evaluate, channel, present to others, and to exercise judgment in order to predict, plan, and control fast changing events; skills which are indispensable to ICT-supported and non-ICT learning environments. Nowadays even, more and more industrial, professional, and business occupations call for knowledge-based and skillful intellectual workers as well. A worker's ability to use ICT fluently is necessary in more and more occupations; former skills have become obsolete.

Similarly, it is now beneficial for every child, adolescent, and adult to have at least a general notion of their technological surroundings at home and at school, on the street, in the office and work place.

From the foregoing, the question is: What can teachers do in carrying out their duties, and how can ICT be used to enrich learning opportunities in our schools? There is no doubt that ICT is essential to develop a vision for the future. This is true, not only because the world is becoming a knowledge society, relying heavily on new knowledge, skills and experiences, but also because we live in a technologically dominated socio-economic era. In ICT- based education, the number of inputs are higher than the traditional one. Thus, it provides better output as well (Aktaruzzaman , Rashedul Huq Shamim, & Clement, 2011). In short, ICT changes the way different subjects such as science is taught as they relate more closely with the way students think (Dywer, 2000).

The problem

In the 21st century, the ever-increasing needs of individuals and society are placing a heavy burden on established educational institutions. At the same time, traditional structures and modes of teaching appear less and less responsive to the challenges of our turbulent times resulting now to the clarion call for innovation and transformation among educators everywhere. Furthermore, the internal problems of schooling are inseparable from external changes on a global scale, and must be seen in the context of contemporary world problems, which, will not be solved unless approached and treated educationally, as well as economically, politically, and socio-culturally. Students who enter school are communicative, curious, creative, and capable of learning many things. However, we believe that the traditional school of the 20th century, which is still very much with us, diminishes their abilities over the period of learning and, so, we need a new kind of school for the 21st century made possible by adaptation based on a sound understanding of the principles and concept of ICT for keeping in pace with technological developments and the changing competencies required for both the students and their teachers. Shifting from traditional learning to ICT-based learning is badly needed (Aktaruzzaman , Rashedul Huq Shamim, & Clement, 2011). There is the need to brace up to the new challenges and systems of education through the deployment and use of ICT in Nigerian schools since, already Nigeria is almost two decades behind in embracing the use of computer in classrooms (Ezekute, 2000). It is, therefore, sad to note the observation that Nigeria ranks lowest among five prominent African counties in the use of ICT (Afolabi 2001) so that even now in Nigerian classrooms traditional patterns of education have remained largely unchanged (Adamu ,1992).

Significance of the paper

Nigeria as a country enjoys an enviable position in sub Saharan Africa so that her developments are very easily transferred to the other countries as well as the fact that Kaduna Polytechnic which is the population of the investigation recorded in this paper is the largest in this part of the world and has high multinational staff as well as student population. The findings and recommendations of this paper therefore have implications for a significant portion of the African continent.

Also, an investigation like this provides a check on teachers' awareness and effective use of the technology provided so that it does not amount to a sheer waste (Carlson & Gadio, 2003).

Purpose of the study

This paper was poised to ascertain the awareness of the lecturers of Kaduna Polytechnic to engage ICT in the classroom in line with UNESCO, EPA and World Bank specifications worldwide, since, being prepared to adopt and use ICT and knowing how that they can support students' learning must now become integral skills in every teacher's professional repertoire (Krysa, 1998).

To this end, the investigation of this paper has exposed the situation of the level of awareness and readiness of the teachers to engage ICT in their classrooms.

Engaging the lecturers in responding to the questionnaire of this investigation ignited the flame of curiosity among many colleagues following which this researcher has robbed minds with them and a lot of ideas have been shared with the hope that the awareness and benefits for engaging ICT in the classroom continues to multiply.

The management, teachers and students of Kaduna Polytechnic and similar institutions would find the contents of this paper relevant for improvement and as a reference material for future related research.

Theoretical framework

This study was premised on the claim by Bionco (2013) that awareness of an education policy helps teachers in their classroom practices and influences their methodologies generally. This claim is tenable here because teachers may never be carried along until they are aware of what the education policy is at every point in time as well as current trends in order to know what they could be offered, what they should offer in return and the strategies to engage in what they should offer. Based on this realization, this paper addresses the awareness and readiness of the teachers of Kaduna Polytechnic to engage ICT in teaching.

Methodology

The population of the study comprised teachers of Kaduna Polytechnic drawn from the two colleges of the institution namely the College of Engineering and College of Environmental Studies. The number of departments in each of the Colleges was determined after which the number which entailed forty percent in each college was randomly selected. Forty percent of the entire number of teachers in the departments selected again randomly selected made up the sample of this paper which was served the questionnaire. The questionnaire comprised two sections, A and B. Section A contained fifteen items designed on a Likert scale format with a five point rating scale of one to five (1 – 5) representing responses from strongly agree to strongly disagree while section B contained only one item that requested the respondents to list the particular aspects of their teaching that they engage ICT. The Mean, a measure of central tendency and contents analysis were engaged as the statistical techniques for the analysis of the data generated from the questionnaire.

Presentation and analysis of data

Since the rating scale adopted for items in section A of the questionnaire was one to five (1 – 5) any derived Mean based on its mid point was considered a rejection when lower or an acceptance when higher than 2.5

Table 1: Section A of questionnaire items and the Means derived

S/N	Questionnaire item	Acquired Mean	Decision
1.	I am aware of the need to engage ICT in my teaching	2.8	Accepted
2.	I now use ICT in teaching	2.5	Rejected
3.	I learnt about engaging ICT in teaching at a workshop organized by the management of Kaduna Polytechnic	2.4	Rejected
4.	I learnt about engaging ICT at a workshop organized elsewhere	3.2	Accepted
5.	The concept of engaging ICT in teaching is well known to me.	2.4	Rejected
6.	I am aware that engaging ICT in teaching is learner centered.	2.8	Accepted
7.	I know that engaging ICT in teaching is one of the current global trends.	2.8	Accepted
8.	I am computer literate.	2.6	Accepted
9.	I am able to process my students' results sheets on computer	2.3	Rejected
10.	I use computer software in my teaching.	2.4	Rejected
11.	At times I meet with my students on line to interact intellectually.	2.2	Rejected
12.	There is adequate ICT equipment like computer and projector to use at my disposal.	2.1	Rejected
13.	The premises of Kaduna Polytechnic have free internet access.	2	Rejected
14.	Kaduna Polytechnic has a well equipped and functional electronic library.	1	Rejected
15.	Engaging ICT in teaching is to me more preferable to traditional teaching method in meeting the needs of my students generally.	3	Accepted

The interpretation of the data presented in the table above is that some of the lecturers of Kaduna Polytechnic are aware of the concept and the need to engage ICT in teaching from workshops and conferences attended both within and outside of the institution but not to an appreciable level. Also, some of them know that engaging ICT in teaching is one of the current global trends in education, which is learner - centered and that it is more beneficial and preferable to traditional teaching methods while only about half of them are computer literate on the one hand. On the other hand, the lecturers are not provided Computers, projectors, computer soft wares an electronic library and even internet access within the premises of Kaduna Polytechnic and so even those who are computer literate and are willing cannot and do not engage ICT in teaching.

Section B of the questionnaire comprising only one item requested the lecturers to list the aspects of teaching that they engage ICT. Many of them did not respond to the question and the few who did mentioned browsing for teaching materials. Non of them indicated the use of ICT in assessment other than for the tabulation of students' results for those of them who are the examination officers of their departments.

Conclusion

In the aspect of lecturers' awareness of the concept of engaging ICT in teaching and the benefits derivable thereof the situation in Kaduna Polytechnic is fair because the creation of the awareness has commenced. However, in the aspect of the actual engagement of ICT in teaching the situation is bad; a situation of theory without practice. Such a situation leaves much to be desired and must be urgently addressed before the zeal and knowledge of the lecturers who are computer literate and have the awareness as well as the zeal to engage ICT become lost and obsolete.

Suggestions

The following suggestions could help to enable the engagement of ICT in Kaduna Polytechnic:

- The management of Kaduna Polytechnic should sustain the efforts for the creation of the awareness of engaging ICT in teaching and work out the modalities to implement the practice
- The management of the Polytechnic must quickly arrange to provide free internet service within her premises to encourage staff and students to download relevant materials and free soft wares thereby making them better inclined towards engaging ICT in teaching and learning.

- Previous efforts made by the Polytechnic's academic staff association to provide laptops for lecturers to pay for instalmentally should be encouraged and sustained.
- Some departments already have a few projectors but they are inadequate to go round so management should encourage and aid them to acquire enough.
- To obtain soft wares, the Polytechnic management could liaise with some education agencies like the British Council for regular supply. By so doing they could even have some samples for free.
- The management of the Polytechnic could as well subscribe to some online journals to enable her staff and students keep abreast latest innovations and trends in education
- The website of the Polytechnic should be updated to include platforms for staff and students' interaction.
- More workshops should be organized by the Polytechnic management to demonstrate the engagement of ICT and both staff and students compelled to attend for all to be carried along.
- The management of the Polytechnic should create a platform of network between all lecturers for the dissemination of information to them, and through that too the lecturers could be sent the soft copies of their class lists for the compilation of semester exam results. Such a move would be cost effective in terms of reducing the money spent on stationery to provide the hard copies, energy saving, time saving and motivate the lecturers to improve their computer literacy.
- The Polytechnic must gradually engage ICT not only for her Post Unified Tertiary Matriculation Examination but as well for all courses beginning with the General Studies (GST) taken by all students.

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