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February 2013

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An Assessment of Computer and ICT Skills Among Secondary School Teachers in Ota Ogun State

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ABSTRACT

This paper focuses on the computer and ICT skills of secondary school teachers in Ota, Ogun state of Nigeria. The purpose was to find out if the teachers were computer and ICT literate and to examine if they employ computers and ICT in their teaching activities. Eighty copies of a self designed questionnaire were administered to teachers in four secondary schools, out of which sixty eight was completed, returned and found usable. The study shows that the respondents are aware of the fact that being computer and ICT literate is very important in their profession. The paper concludes that the Government in conjunction with the Ministry of Education inculcates computer and ICT training into the curriculum of teacher training schools. It also admonishes the Nigerian Library Association (NLA) to rise to the occasion of reviving and establishing school libraries in secondary schools.

INTRODUCTION

Organizations of all types and sizes, including schools, have recognized that the usage of computers in the work environment is important as it presents with unprecedented challenges that helps individuals to acquire an inquiring, critical and creative mind to capitalize on the opportunities driven by the explosive growth of information, knowledge and technology. (Kumar, Rose and D'Silva, 2008).

Today, improved communication technology has made time and space less complex. It could be observed that this modern age is the age of information explosion in which an average individual wants to explore the information system. Thus, the ability for timely acquisition, utilization, communication and retrieval of relevant and accurate information has become an important attribute for better teaching-learning process (Adebayo, 2008)

Abolade and Yusuf (2005) described Information and communication technologies as essential tools in any educational system. They have the potentials of being used to meet the learning needs of individual students, promote equality of educational opportunities; offer high quality learning materials, increase self-efficacy and independence of learning among students, and improve teachers' professional development. Apanpa and

Lawal(2009) opined that the use of technology, and knowing how technology can support student learning have become essential skills for professional teachers in today's world.

Adebayo(2008) asserted that the functions of teaching in education process is considered paramount especially when we consider teaching and learning process as the acquisition of knowledge and skills by individuals to enable him become useful member of the society.

Teachers are the primary agents of educational innovation therefore; ICT skills among secondary school teachers should be seen as an invaluable prerequisite that would help facilitate the teaching and learning procedure in this modern age of information explosion.

The main objective of information technology for teaching and learning according to Idowu (2001) is to facilitate a faster and better comprehension and appreciation of the subject matter in such a way as to obtain the maximum possible output from the teaching and learning process. Nwachukwu (2005) opined that with the changes in the forms, formats, and expressions of information, the process of access, storage, transmission and reproduction have witnessed new media technology, it is therefore of paramount importance for teachers to adapt themselves to new roles and skills in order to cope with the impending changes. Satharasinghe(2003) posited that use of computers can revolutionize teaching and learning and could bring advances that would improve education dramatically;

Jegede (2008) opined that ICT is now recognized as an essential ingredient for creating 21st century learning environment but Lau and Sim (2008) reported that despite the apparent benefits of the use of ICT for educational purpose, studies showed that in many cases, the learning potential of ICT is deprived as many teachers are still not fully ICT literate.

Mutula and Mutula(2007) asserted that there is a digital divide which refers to the widening imbalance of access to ICT's between communities and countries which creates an imbalance for equitable access to quality education in an electronic age. They further opined that schools are being seen as very important institutions for bridging the digital divide in society because they represent focal points where many children from different communities converge for learning purposes. Though Servon (2002) argued that the technology gap should not be defined narrowly as a problem of access. Training and content, should be included as other dimensions of the digital divide so that policy makers and programs to narrow the digital divide would not lose their focus. It is therefore of paramount importance for teacher preparatory institutions to aim at developing in teachers ICT pedagogical competencies that will ensure that these teachers help the country to cross over to the positive side of the digital divide and keep pace on the information superhighway (Akudolu, 2002).

Facilities and resources such as computers and internet are very important tools in the hands of teachers if ICT learning is to be embraced in earnest. But the question is, are the facilities at the disposal of the teachers in secondary schools? If they are, are they of international standard and are the teachers utilizing the resources? This paper has the purpose of finding out if Secondary school teachers are computer and ICT literate and to examine if they employ the use of computers and ICT in their teaching activities.

Research Methodology

The survey research method was used in investigating the computer and ICT skills of the secondary school teachers. Specifically, a questionnaire was designed and distributed to targeted audience who are teachers in senior secondary schools. Eighty copies of the questionnaire were distributed among the teachers. Sixty eight copies of the questionnaire were completed, returned and found usable.

Data Presentation, Analysis, and Discusion

Out of the 80 copies of the questionnaire distributed to the respondents, 68 (85%) were completed, returned and found useable for the purpose of this analysis. The age bracket of the respondents was, 19-24 (1.47%) and then 25-30 (41.17%) while 31-35 (19.12%), 36-40 (19.12%) and 41-45 (19.12%).A higher number of female 36 (52.94%) as against 32 (47.06%) males, constitute the study's respondents.

Table 1: Distribution of Respondents by Year of teaching experience

	Respondents	Frequency
1 – 5 years	33	48.52%
6 – 10 years	18	26.47%
11 – 15 years	12	17.65%
Above20 years	5	7.36%

From the table above, the teachers from 1 – 5 years had the highest number of respondents (48.52%) while teachers between 6 – 10years (26.47%), 11 – 15 years (17.65) and 20 years above (7.36%) respectively.

Table 2: Distribution of Respondents by Qualification

	Respondents	Frequency
NCE	11	16.18%
Bsc (ed)	33	48.53%
B.A(ed)	11	16.18%
M(ed)	1	1.47%
Msc/M.A(ed)	4	5.88%
Others	8	11.76%

The table shows the level of education of the respondents NCE (16.18%), Bsc (ed) had the highest (48.53%) while B.A (ed) had (16.18%) while M (ed) (5.88%) and other qualifications such as PGDE had 8 respondents (11.76%), respectively.

Research Questions

Table 3:

	Frequency	Percentage
As a teacher, have you ever received any computer training?		
Yes	56	82.36
No	12	17.64

The table above reveals that (82.35%) respondents have received computer training while (17.64) have not received any computer training. It is very important for teachers to continuously retrain themselves and acquire new skills so as to maintain relevance in their job. Modern developments of innovative technologies have provided new possibilities to teaching professions, but at the same time have placed more demands on teachers to learn how to use these new technologies in their teaching (Robinson & Latchem, 2003). Roberts (2000) opined that even if all the technology in the world is made available, and there is no investments in teachers that will help to them acquire the comfort and know-how, it will be wasted. There is a need to find ways to help teachers be competent, confident and creative users of technology because teachers tend to integrate ICT in their teaching if they experience ICT skills as a learner (Collis & Jung, 2003)

Table 4: Certification in Computer programs

Computer Programs	Respondents	Percentage
Certification in Computer Appreciation	19	27.94
Diploma in Computer Appreciation	13	19.12
Certificate in Microsoft Office Suit (MSC word, MS Excel, MS power point, MS access)	18	26.47
Internet Explorer	1	1.47
Others	17	25

The table above clearly indicates that respondents who had certification in computer appreciation are 19 representing 27.94%, Diploma in Computer Appreciation 13 representing 19.12%, Certificate in Microsoft Office Suit (MSC word, MS Excel, MS power point, MS access) 18 representing 26.47%, Internet Explorer 1 representing 1.47% and other programs such as CCNA, MCSE, MCP and Diploma in Computer Engineering had 17 respondents representing 25% respectively. This is an excellent development because it shows that the teachers have built capacity in the area of training on various computer packages though the teachers scored so low in the parameter of internet explorer. This is in line with the suggestion of Idowu (2001) that teachers should be given attention in terms of seminars, workshops, conferences on latest developments on information technology. He further reiterated that teachers should not only be computer literate but should be empowered to have access to computers and other devices so as to keep abreast of current findings and research activities.

Table 5: interest in developing computer and ICT skills

	Respondents	Frequency
Yes	64	94.11%
No	1	1.47%
Undecided	3	4.42 %

This table clearly indicates that sixty four (64) respondents representing 94.11% were ready and willing to develop their computer and ICT skills. This is an excellent indication that if given the necessary support by either the government or the parent body of their schools, they will acquire necessary computer and ICT skills that is required to take their profession to a new level.

Table 6: Respondents frequent use of computer

ITEMS	RESPONDENTS	PERCENTAGE
Once a week	3	4.42%
Twice a week	9	13.24%
Once a month	15	22.06%
Not at all	7	10.29%
Daily	31	45.58%
Undecided	3	4.41%

According to the results, (4.42%) of respondents uses computer once a week, (13.24%) of respondents twice a week, (22.06%) respondents once a month, 10.29% not at all, daily (45.58%) and undecided (4.41%). This may be due to the fact that the schools in which these teachers find themselves do not have computers needless to talk about having internet connectivity. Their interaction with computers seems to be at a personal level; that is either using personal PCs or going to cyber cafes to make use of the internet. Hennessy, Ruthven and Brindley (2005) stated that despite a great deal of recent progress and optimism that many more learners can benefit from access to ICT, the infrastructures necessary for deploying technological resources are lacking in low-income countries. Furthermore, many teachers are working in conditions that are not conducive to supporting ICT use.

Table 7: Respondents surf of the internet when preparing lesson note

	Responded	Percentage
Yes	35	51.47%
No	29	42.65%
Undecided	4	5.88%

According to the results, 51.47 % of respondents surf the internet when preparing for lesson note while 42.65% don't surf internet and 5.88% undecided respectively. A fairly large population of the respondents do not surf the internet while preparing lesson notes. The implication of this is that they will not be in touch with what their counterparts all over the world and they may also not have first hand information on current trends and best practices in their profession and method of teaching. Overall, the results are consistent with the findings of Slaouti & Barton (2007) who concluded that ICT most commonly used by teachers was word-processing, PowerPoint then WWW.

Table 8: Respondents use of spreadsheet package in preparing student results

	Responded	Frequency
Yes	34	50%
No	29	42.65%
Undecided	5	7.35%

The table above indicates that 50% respondents uses spreadsheet package in preparing student results, 42.65% don't use, this lack of usage may be due to the fact that spreadsheets are normally used by teachers to manage student grades and results and not for everyday use, therefore, 7.35 respondents were undecided. Sixty five percent of teachers have ever used both spreadsheets this shows that the respondents are competing almost on the same footing

with their counterparts in other parts of the world. Spreadsheets are normally used by teachers to manage student grades and results.

Table 9: Respondents Opinions of respondents about ICT

S/N	Items Description	Strongly Agree	Agree	Disagree	Strongly Disagree	Undecided	Total
1	Training in computers and ICTs skills is useful	61 (89.70%)	5 (7.36%)	0 (0%)	1 (1.47%)	1 (1.47%)	68 (100%)
2	Computer and ICT skills are not needed in my Profession	2 (2.94%)	2 (2.94%)	13 (19.12%)	50 (73.53%)	1 (1.47%)	68 (100%)
3	I really want to know about computer and ICT but don't have the time	5 (7.36%)	18 (26.47%)	22 (32.35%)	22 (32.35%)	1 (1.47)	68 (100%)
4	Programs don't exist for such training in my school	10 (14.71%)	14 (20.60%)	11 (16.17%)	31 (45.58%)	2 (2.94%)	68 (100%)

From the table above, it can be deduced that respondents have positive attitudes towards computer and ICT skills; 61 respondents representing 89.70% strongly agree that computer and ICT training is very important and useful, 73.53% strongly disagree that computer and ICT skills are not needed in their profession, 32.35% strongly disagrees with not having time to acquire necessary skills on computer and ICT while 45.58% also strongly disagrees with their schools not having programs for training teachers relevant skills on computer and ICT. It is clear from the table above that teachers recognize the fact that computer and ICT skills is very relevant to their profession most especially this 21st century where millions of information exist on the web. It will be a serious setback if they cannot access or utilize information that is at their disposal. (Akudolu, 2006).

Conclusion

The study reveals that majority of the teachers in the secondary schools sampled were computer and ICT literate. Although this is a very good indication, so much still needs to be done. The government in conjunction with the ministry of education should ensure that computer and ICT trainings is inculcated into the curriculum of teacher training schools. A viable school library with computer and ICT gadgets in working conditions should be put in place in each school. This place an onus on the Nigerian Library Association (NLA) to rise up to the occasion and make sure libraries are set up in secondary schools and professional librarians are employed to man the affairs of such libraries. Regular visits for inspection should be made to schools at intervals by NLA officials to make sure the libraries are achieving the purpose for which they were set up. These libraries will help in augmenting the training teachers receive on computer and ICT skills as they will provide services such as in house trainings and will also have cybercafés /media centres where teachers can make use of computers at low or no cost. It is high time to stop idolizing computers if indeed we are to get on the information super highway.

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