COMPUTER LITERACY AND TEACHER JOB EFFECTIVENESS IN KWARA STATE SECONDARY SCHOOLS

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ABSTRACT

The use of computer by teachers remains highly invaluable in over 50% secondary schools. This study investigated computer literacy and teacher job effectiveness in Kwara State secondary schools. The study was a descriptive one of the survey type. Five hundred, that is, 100 principals and 400 teachers were randomly selected as respondents. Two researcher-designed instruments entitled: 'Computer Literacy Questionnaire' (CLQ) and 'Teachers Job Effectiveness Questionnaire' (TJEQ) were used to collect relevant data. The questionnaire was validated by six experts in the areas of Educational Management and Educational Measurement and Evaluation. Test re-test method was employed to obtain reliability coefficient values 0.72 and 0.84 for CLQ and TJEQ respectively. The research questions raised were answered using descriptive statistics. Pearson product-moment correlation statistic was used to test the hypothesis formulated to guide the conduct of the study at 0.05 level of significance. The findings of the study showed that there were 2,109 computers in the selected senior secondary schools in Kwara State out of which 1,275 (60.5%) were functioning. Microsoft word was ranked as the most application package used by teachers with frequency of 414. Results showed significant relationship between computer literacy and teacher job effectiveness (calculated r-value =0.675 > critical r-value 0.062, $p \leq 0.05$, df = 499). It was recommended, among others, that the government should organize workshops and conferences for teachers on the use of modern computer application packages such as Java and Oracle which will promote effective teaching and learning in secondary schools.

Keywords: Computer Literacy, Teachers Job Effectiveness, Secondary School

INTRODUCTION

The role of computer as an electronic device that accepts data, processes data and produces the result in form of information with minimum level of human intervention cannot be underscored in every sector of Nigeria's economy. It has, therefore, become imperative for teachers to be computer literate in secondary schools in Nigeria. This can be done through in-service training and by the use of computer service bureau. There are other consultancy services which can provide computer-training services to the teachers. The educational institutions must have to provide microcomputers that will be able to serve the needs of their teachers (Abolade, 1999). If a great percentage of the teachers of secondary schools are computer literate, many of the problems they encounter in the computation of students results and preparation of lesson notes could be drastically minimized. Suffice to say that the use of computers by teachers can reduce educational problems to the barest minimum. The computer can keep adequate records of teaching assignments. Because of the unimaginable memory capacity of computers, they can store information and be able to retrieve it within a twinkle of an eye. Regarding the difficulties in retyping the same document several times, once stored in the computer, editing could be done faster and more accurately. Onasanya (2001) asserted that as the world enters the third millennium, there is a great challenge to update the process of teaching and learning and to take giant strides toward keeping abreast of technological developments and toward application of computer literacy in Nigerian educational system. Nigeria is lagging behind in technological advancements; result- oriented efforts are not made for computer literacy across all levels of educational system.

Federal Government of Nigeria (2004), in the National Policy on Education stated that no education can rise above the quality of its teachers. Therefore, in order for the students to be well exposed to effective teaching, the teachers must be well informed about the use of computer in the school administration. However, computer literacy involves the acquisition of skills in using the computer in

flow charting, programming the computer to do simple tasks such as teaching, text writing, computation, and data entry activities. According to Orifa (2003), the computer has the potential as sophisticated educational teaching aid, to enhance traditional ways of presenting information to students. This research work examined the influence of computer literacy on teacher job effectiveness in Kwara State secondary schools.

PURPOSE OF THE STUDY

The purposes of the study, therefore, are to: determine the total number of functional computer systems in secondary schools, examine computer application packages used by teachers in secondary schools and examine the relationship that existed between computer literacy and teacher job effectiveness in secondary schools.

REVIEW OF RELATED LITERATURE

Computer is an electronic device which accepts and processes data by following a set of instructions (program) to produce an accurate and efficient result (information). Yaro (2007) opined that a computer is an electronic device that accepts data through input device, processes the data and yields results through output device (information). Computer is not only a device that accepts data but also processes it and makes result available to the user. Since the ultimate purpose of computer is to produce information, the art of computing is referred to as information technology. It is an electronic device that accepts user problems as input through the input unit, processes the input in the central processing unit and brings out the output through an output unit in form of information.

According to Emetarom (2001), computer as an information gadget, equipment or facility increases efficiency and productivity. Wikipedia (2011) defined a computer as a programmable machine designed to sequentially and automatically carryout a sequence of arithmetic or logical operations. The use of computer remains invaluable in all sectors of the economy. This is based on the fact that work is done faster and results are accurately given as at when due. Using computer in day-to-day activities has tremendously reduced fatigue thereby making workers to appreciate their job. Oguta (1999) noted that the use of computer system as an electronic device has made processing of data dependable in making a decision that could positively affect an organization. Yaro (2007) classified computers into four major categories which include super computers, mainframe computers, mini computers and microcomputers.

Computer literacy is the knowledge and ability to use computers and related technology efficiently and effectively. A person that has the ability to operate a computer and understands the language used in working with a specific system is said to be computer literate. Literacy is the learning and mastering of symbols and how to interpret them. This point of view suggests that computer literacy is a very basic understanding of how computers work. Aina (2001) concluded that computer literacy could be measured in terms of ability to operate the computers system and use some of its application packages to accomplish a given task. The literacy aspect of a computer system dwells much on the practical knowledge. The globalization of computer system has made it compulsory for teacher to learn how to use the computer system in order to enhance effective teaching and learning in the school system.

Ozigi (2007) found in a study on influence of computer on teachers effectiveness in secondary schools that teachers exposed to workshops and seminars on the use of computer systems were more effective in secondary schools. Most of the teaching job could be easily done with the use of computer system. In fact, fatigue and other factors are reduced to the barest minimum. According to Goffe and Sosin (2005), application packages that could be used areMs-Excel, Lotus 123, Easy calc., Stat view, quarto pro, database management, Microsoft word, Microsoft Power Point etc.

According to Onasanya (2001), some objectives that have been identified whose achievement could lead to computer literacy include: knowledge of the history of computers: knowledge of the components of a computer and how they interact: knowledge of the issues surrounding computer technology such as privacy and artificial intelligence; skills in using the computer to program and perform simple tasks. Others include: Skills in flowcharting, recognition of the computer as a valuable tool; and skills in hardware and software maintenance. Abolade (1999) observed that if computer

education should be used for instruction, the teacher must become computer literate before they can use computer in their instruction.

Effectiveness is related to attainment of stated objectives. It is a truism to assert that teacher job effectiveness can be said to be the ability of the teacher to bring about achievement of educational objectives in our schools. Alabi (1999) described an efficient and effective teacher as a teacher with certain innate dispositions which can take the forms of talent, aptitude, ability to sympathize, to empathize and establish rapport with others, a helping spirit and imaginative decision making potential and in sum, a genial and charismatic personality. Teacher job effectiveness can be measured by the way in which the teacher competently and effectively brings about learning and positive change in behaviour in students using the indices as: method of teaching-lecture, discussion, recitation and tutorial methods; student assessment-computerized examination record allows easy access to the students record and subsequent decision making on the academic standing of each student (Maiyaki, 2002) ; lesson plan preparation-the use of computer application packages would expose the teachers to modern ways of teaching in the classroom, thereby enhancing his productivity and students' academic achievement- this involves the use of standardised results obtained from recognized examination bodies such as West African Examination Council (WAEC).

METHODOLOGY

The research design for this study was a descriptive survey. The population for the study comprised 235 senior secondary schools in Kwara State. One hundred schools were randomly selected as sample for the study. Furthermore, 500, that is, 100 principals and 400 teachers were randomly selected as respondents. Two researcher-designed instruments entitled: 'Computer Literacy Questionnaire' (CLQ) and 'Teachers Job Effectiveness Questionnaire' (TJEQ) were used to collect relevant data. The questionnaire was validated by six experts in the areas of Educational Management and Educational Measurement and Evaluation. Test re-test method was employed to obtain reliability coefficient values 0.72 and 0.84 for CLQ and TJEQ respectively. The research questions raised in the study were analysed using descriptive statistics such as frequency counts, percentage and ranking, while Pearson product-moment correlation statistic was used to test the hypothesis formulated at 0.05 level of significance

Research Questions

The following research questions were raised to guide the conduct of the study:

1.   What is the number of computer system in Kwara State secondary schools?

2.   What application packages are used by teachers in Kwara State secondary schools?

Research Hypothesis

There is no significant relationship between computer literacy and teacher job effectiveness in Kwara State secondary schools.

RESULTS AND DISCUSSION

Research Question 1: What is the number of computer system in Kwara State secondary schools?

Table 1.Number of computer system in selected senior secondary schools in Kwara State

S/No	ITEM	Frequency	Percentage (%)
1	Functioning computers	1,275	60.5%
2	Non-Functioning computers	834	39.5%
	Total	2109	100

Source: Fieldwork, 2011

Table 1 shows the total number of computers in some selected Kwara State senior secondary schools in year 2011. The table shows that there were 2,109 computers in the selected senior secondary schools out of which 66 (60.5%) were functioning, while 843 (39.5%) were not functioning. The computers that are not functioning could adversely influence teachers' productivity. Teachers' access to the use of computer system will enhance their job performance.

Research Question 2: What application packages are used by teachers in Kwara State secondary schools?

Table 2.Application packages used by teachers in selected senior secondary schools

S/N	Application packages	Frequency	Rank
1.	Database management	35	4
2.	Microsoft PowerPoint	112	3
3.	Microsoft word	414	1
4.	Spread sheet package	289	2

The responses to application packages used by teachers in selected secondary schools were ranked as indicated in Table 2. The use of Microsoft word was ranked as number one with 414 responses, while Database management was ranked the least with 35 responses. Spread sheet application and Microsoft Power Point had 289 and 112 responses respectively. Computer application packages such as Microsoft word could be used for the preparation of reports, letters and textual documents. A word processor is used for manipulating text based documents. It serves as the electronic equivalent of paper, pen, typewriter, eraser and dictionary. Word processing allows for the followings: automatic spell check, typing into the computer and storing what is typed permanently on a storage media for future use, automatic page formatting, easy correction and revision of text, previewing a page before printing, mail merge, printing of multiple copies of document, automatic importation of pictures and symbols into documents being prepared with word processing packages, use of different font style or type styles. Teachers that are proficient in the use of computer application packages performed better than their colleges in the school activities (Udoh, 2006).

Research Hypothesis

There is no significant relationship between computer literacy and teacher job effectiveness in Kwara State secondary schools.

Table 3.Computer literacy and teacher job effectiveness

Variable	N	Mean	SD	Df	Calculated r-value	Critical r-value	Decision
Computer Literacy	500	7.81	4.06	499	.675	.062	Ho Rejected
Teacher job effectiveness	500	5.94	3.55				

Table 3 indicates that the calculated r-value (.675) is greater than the critical r-value (.062) at .05 level of significance for 499 degrees of freedom. Hence the null hypothesis is rejected. This implies that a significant relationship existed between computer literacy and teacher job effectiveness. The phenomenal demand for computer education has placed heavy burden on most educational institutions. University computer science departments all over the country are hard pressed to supply faculty and facilities for the "masses" of students desiring an education in computer science. Secondary schools have experienced this same demand on the part of the teachers. Even though the problems that these demands cause are equivalent in many respects to those in universities, solutions at the secondary level are not as easy or speedy. According to James (2010), teacher computer literacy would increase productivity in the school system which would invariably enhance high students' academic performance.

CONCLUSION

It can be concluded that a significant relationship existed between teacher computer literacy and job effectiveness in Kwara State secondary schools. Computer literacy is the knowledge and ability to use computers and related technology efficiently, with a range of skills covering levels from elementary use to programming and advanced problem solving. Computer literacy can also refer to the comfort level someone has with using computer programs and other applications that are associated with computers. Another valuable component of computer literacy is the knowledge on how computers work and operate. Having basic computer skills is a significant asset in the developed countries.

RECOMMENDATIONS

Based on the findings of this study, the following recommendations are made:

The government should organize workshops and conferences for teachers on the use of modern computer application packages such as Java and Oracle which would result into effective teaching and learning.

The government should increase the number of computers available in secondary schools. When teachers have access to computers whenever the need arises, this would greatly improve their job effectiveness. The government should pay more attention to teacher computer literacy so that lesson plan preparation could meet up to standard based on secondary school curriculum.

The government should make it mandatory for teachers to make use of Microsoft power point in lesson delivery.

REFERENCES

Abolade, A. O. (2000). Computer literacy in secretarial practice in Nigeria: A dipstick paper. *Ilorin Journal of Education (IJE)*, 19, 81-93.

Aina, F. (2001).*Use of computers in schools*. Ilorin: FHJK Publications.

Alabi, A.T. (1999). Utilization of Management Information System for effective decision-making in Nigerian Universities.Unpublished Ph.D. Thesis, University of Ilorin, Ilorin.

Emetarom, V. (2001). Computer based MIS and the 21st century University Administration in Nigeria. In N. A. Nwagwu, M. A. Ogunu& M. Nwadioni (Eds*,), Current issues in educational management in Nigeria*. Benin City: Ambbik Press Ltd.

Federal Government of Nigeria (2004).*National Policy on Education.* Abuja: Government Press.

Goffe, B. and Sosin, K. (2005). Does using computer technology   improve   students' performance? Evidence from a management accounting course.*International Journal of Business and Social Science, 2(10), 1-9.*

James, W. (2010). Computer literacy: implications for teaching a college-level course. *Journal of Information System Education, 13 (2), 1-10.*

Maiyaki, K.S. (2002). Information and Communication Technology (ICT)   and Internet amongst the College and University Teachers.*International CALIBER, 2(3), 87-98.*

Oguta, E.S. (1999). *Management information system analysis*.Unpublished textual note, Offa Polytechnic, Offa.

Onasanya, E.(2010). *Introductory computer programming principles in   secondary   school*. Benin: IKMD Publishing.

Orifa, G. (2003). Effective administration in the secondary school system. Onitsha: Varsity Press.

Ozigi, S.(2007). Influence of computer on teachers effectiveness in secondary schools.Unpublished M.Ed. Project, University of Ilorin, Ilorin.

Udoh, C. K. (1994). *Computer literacy.Operation and application.* Ilorin: Integrity Publication.

Yaro, A. S. (2007). *Introduction to computer studies for colleges*. Ilorin: Integrity Publication.