

Impact of Information Technology in Some Selected Secondary Schools in Kebbi State

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Abstract

This paper examines the impact of Information technology in public secondary schools in Kebbi State and how information's technology has affected every aspect of human activity and have a potential role to play in the field of education and training, specially, in distance education to transform it into an innovative form of experience. The need of new technologies in teaching learning process grows stronger and faster. The information age becomes an era of knowledge providing sound and unmatched feasibility for discovery, exchange of information, communication and exploration to strengthen the teaching learning process. Information technologies help in promoting opportunities of knowledge sharing throughout the world. These can help the teachers and students having up-to-date information and knowledge. Accurate and right information is necessary for effective teaching and learning; this paper was purely conceptual in nature and the researcher had employed secondary methods of data collections through the application of test books, journals, magazines, interment and other secondary valid information. The researcher had fundamentally stated it findings and recommendations.

Keywords:

Role, Information,
Primary, Secondary,
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Background to the Study

Education is one of the fundamental tools that could enhance socio-economic and political development of the entire world. It has been observed that number of countries across the globe have experiences one forms or the other in the development of their country, example, in the developed nations like (USA) United State of America, has put more emphases in the area of education and through the application of computer teaching.

One of the basic functions of education is preparation of students for life. This function in 21st century may be participation in an information rich society, where knowledge is regarded as the main source for socio-cultural and politico-economic development of countries and/or nations. Information rich societies are developed and dominating and they are controlling the information throughout the world. Information encompasses and relies on the use of different channels of communication, presently called information and communication technologies (Hussain, 2005) and would be incorporating better pedagogical methods to cope with such emerging situations.

These have changed the scenario of education particularly, in Kebbi State and instruction making teaching learning process more productive creating collaborative, learner centered and interactive global learning environments. Therefore, information technologies are assumed to play a constructive role in education to make the teaching and learning process more productive through collaboration in an information rich society. (Hussain, 2005)

Information rich society promotes new practices and paradigms for education where the teacher has to play new role of mentoring, coaching and helping students in their studies rather to play the conventional role of spoon feeding in the classrooms. Students can learn independently having a wide choice of programme selection and access to information. Students can be involved in skill oriented activities in group learning environments for accumulated knowledge. They can interact and share learning experiences with their teachers and fellow learners in knowledge construction and dissemination process. They can receive and use information of all kinds in more constructive and productive profession rather depending upon the teacher. (Hussain, 2005)

Branson (1991) stated that, students learn not only by the teachers but they also learn along with the teachers and by interacting with one another. Indeed, now students can learn much more than that the teacher teaches in conventional learning environments. For example, in Nagari College Birnin Kebbi students engaged in computer operating due to changes in the information technology. In the productive teaching learning process teachers and students have to use information technologies according to their requirements and availability.

Statement of the Problem

Problems of information technology particularly, in the developing nations have hindered series of socio-economic and political development. However, Nigeria has been classified as one of the richest nations in Africa with low practical aspect in information technology. Many secondary and primary schools in Nigeria suffered number of practical aspect in teaching information technology; similarly, number of factors could be associated with low or no information technology in many public secondary schools in Nigeria, particularly, in some selected secondary schools in Kebbi state. (Julie, 2013). Those factors are lack of genuine software, which is one of the fundamental problems facing many secondary schools in Kebbi state. Their library where not equipped with modern technology and absent of software, insufficient computers in the class rooms and library, poor speed of interments, lack of motivation from both teachers and students, lack of qualified teachers and experts staffs for training, poor administrative support, poor curriculum, lack of good maintenance. However, all of them were the engines that supported problems facing effective distribution of information technology in three selected secondary schools in Kebbi state.

Virtually, numbers of organizations, such as governmental organizations, non-governmental organizations, spiritual organizations, and shareholders, individual have contributed in the supply and encouragement of information technology in those schools. It has been suggested those organizations could not be enough yet additional agencies need to interfere in the affairs of information technology in all secondary schools in Kebbi state.

Objectives of the Study

1. To examine the factors that hinders low teaching of information technology in Kebbi state
2. To highlight the supports of other agencies in supporting information technology in secondary schools
3. To look at suggestion on how to improve information technology in secondary schools

Literature Review

The Concepts of Information Technologies

The history of information storage and dissemination indicates that human being used different things for information storage, its display and transmission. In different ages people used different materials and methods for communication such as rocks and stones, papyrus, palm leaves, animal leather and handcrafted manuscripts for storing and transmitting the information from one place to another and to the next generation. These means of information were limited and confined to the elites but “the advent of printing enabled information to be truly widespread throughout the world to move to a more equitable level in terms of access to knowledge” (Menon, 2000).

Similarly, the positions of the researcher, noted the fundamental background of information technology from primitive to more modern methods, however, yet number of countries could not improved in the area of information technology, example of my country Nigeria were many secondary schools depend primary on local methods of teaching despite long history of traditional methods

At present, knowledge may be regarded as power and it comes from having information. Information encompasses and relies upon the use of different communication channels or technologies –called information technologies, for its effectiveness and equal access. Information technologies may extend knowledge beyond the geographical boundaries of a state or country providing relevant information to the relevant people round the clock. (Menon, 2000).

Information Technology “is any computer-based tool that people use to work with information and support the information and information processing needs of an organization” (Haag, 1998). It includes computers and its related technologies; WWW, Internet and Videoconferencing etc. Information technology can be used to promote the opportunities of knowledge dissemination. It can help the teachers and students having up-to-date information and knowledge.

Accurate and right information is necessary for effective teaching and learning; and information technology (Haag, 1998) is a “set of tools that can help provide the right people with the right information at the right time.” In this sense, information technologies may the result of knowledge explosion, where according to Marriam, and Cafarella, (1997,) “computer technology (software) extends the mental ability.” Therefore, information technologies may include computer and its related technologies of high tech and low touch nature. Charp, (1994) called them emerging technologies and stated that these are the products coming out of laboratory and into the hands of educational community. These include wireless communications, the information highway, asynchronous mode, integrated services digital networks (ISDN), multimedia applications, personal digital assistants, artificial intelligence and virtual reality. These technologies would be big of brain and small of mass, depending upon computer technology for their effectiveness and increased capabilities. Similarly, Rashid, M. (2001) discussed the interactive video, CD-ROM, compact video disc, Internet, WWW, teleconferencing, computers, satellites and e-mail as emerging information technologies, and according to him these are “current technologies incorporating into the teaching learning environment process”

However, the argument of the researcher is how ICT Revolution in the 21st century be effective and efficient in public secondary schools in Kebbi. It was understood that, despite digital ear 97% of public secondary schools engages in analog methods of teaching.

Information Technologies and methodological Process of teaching in Kebbi State

Information technology is one of the vital and contemporary tool in improving student intellectuality and allow him to be more independent, in the process of innovation and creativity. And it Making Students Independent in their Studies, Using information technologies students can decide about their studies, learning time, place and resources in a better way. Number of studies has been conducted in some selected secondary schools which are Abdullahi Fodiyo Secondary School, Government Girls Secondary School, and others. Students can work in more supportive environments, seek help from teachers and fellows, and share their learning experiences and ideas in romantic and productive fashion. Dede (1996, p.4) stated that the development of high performance computing and communication is creating new media such as the Www and virtual realities. In turn these new media enable new type of messages and experiences, such as interpersonal interactions in immersive synthetic environments lead to the formation of virtual communities. The innovative kinds of pedagogy empowered by these emerging media and experiences promoted the opportunities of distance education and at present virtual education and eliminated the barriers of distance and time. New and innovative learning experiences would be enhanced and encouraged by these technologies, as by virtual communities, which exist by interactions across the globe through global network of computers round the clock.

The writer view on information technology is over emphasis due to the fact that, number of countries has developed only because they put more emphases on information technology. Nigerian student could not have adequate and effective information technology such as library, free access to information online, access to computers, access to other information that could improve the quality of education. Yet number of student in public secondary schools in Kebbi could not have email. Even in the tertiary institutions.

The global sharing of experiences would make possible the group presentation form of instruction in distance education. Distance education encompasses and relies on the use of information technologies to make learning more productive and more individualized, to give instruction a more scientific base and make it appropriate & more effective, learning more immediate and access to resources more equal. These remarkable aspects can expand the quality and quantity of instructional resources. They can serve learners at their ease in terms of time and place. Rashid (2001), stated that: $\frac{3}{4}$ Both teachers and learners can work with others at remote sites. $\frac{3}{4}$ The community of learners can expand to include virtually anyone who wishes to obtain information and who is not excluded by policy or cost. $\frac{3}{4}$ They can provide real access to experts in universities, research laboratories, the business community, government agencies and political offices.

Impact of Information Technologies in Secondary Schools

Information technology can transform teaching and learning by offering alternatives to the teacher provided information, access to virtually unlimited resources and opportunities for real world communication, collaboration and competition. The phases

of this process as described by Marriam et al (1997) developing awareness recognizing that something is wrong or different; $\frac{3}{4}$ exploring alternative-researching for new ideas from other institutions and acknowledging that change is needed; $\frac{3}{4}$ making a transition-leaving the old approaches behind (or dramatically changed); $\frac{3}{4}$ achieving integration-putting the pieces from the transition phase back together; and $\frac{3}{4}$ taking action-putting new ideas into operation”.

The process can work at instructional programme or institutional level and one or more phases work simultaneously. Traditional lectures and demonstrations can become web-based multimedia learning experiences for distance learners. Web can enrich the learning resources and institutions refocus from teaching to learning, from teacher to learner. It can create learning environment throughout the world by networked learning communities. Networks may create educative environments embedded in democratic philosophy of instruction and helping learners learn. The characteristics of which are: $\frac{3}{4}$ “respect for personality; $\frac{3}{4}$ participation in decision-making; $\frac{3}{4}$ freedom of expression and availability of information; and $\frac{3}{4}$ mutuality of responsibility in defining goals, planning and conducting activities and evaluating [the process]” (Knowles, 1980).

The writer suggestion on the philosophical ideas of information technology not only in the area of impacting knowledge and skills but also in improve the quality of country manpower effectively and efficiency. It promotes the socio-economic and political status of individual and society in general. It also leads fasted growing economic. Similarly, technology will reduce the gabs of poverty and unemployment in the country and make learning more effective, efficient and faster.

Learning may take place more effectively and dynamically in educative environments where teacher and learners are open to each other to interact and exchange information and experiences in a friendly way. Ennis (1989), concluded in a study “Openness on the part of instructor increased their [learner's] desire to discuss problems or topics of interest... these discussions expanded their [learner's] understanding of the content and assisted them in planning the information within a relevant context in their own lives”. Educative environments can enhance and shape the teaching learning process to achieve the desired goals. There is a natural tendency for students to learn and learning can accelerate, in interactive and encouraging environments. Accelerating the encouraging environments may be psychological climates and students' interactions can create them. Interactions of students can make learning environment more effective and meaningful and 'much of learning takes place in a meaningful environment'. Learners may get immediate feedback and reinforcement through web-based learning.

Internet and WWW provide learners latest relevant information at their own pace and they can form a virtual community of learners at global level. Teaching organizations are adopting information and communication technologies specially the computers, World Wide Web, teleconferencing and educational television because of their cost effectiveness, access and flexibilities of choices.

Students Use Information Technologies for the purpose of the following

Number of factors associated with purpose of using information's technology in schools

1. Participate in a media revolution, profoundly affecting the way they think about and use information technologies. This greatly improve the standard of students in innovation and creativity
2. Improve the ways of learning in new learning fashions
3. Extend the ability and skills of applying their learning in real situation. It makes learning faster and easy, students now use technology easy access to website
3. Working in groups for cooperative and collaborative learning
4. Developing self-learning habits at their own pace and time. The issue of learning such as National Open University of Nigeria, education, agricultural technology etc. Information technologies facilitate students in their learning process through their active participation on one hand and help teachers on the other hand.

A shift from competitive to a cooperative goal structure Collaborative and cooperative learning approach provides learners the opportunities of extensive interaction. Students have access to extensive databases and share their own work through networked communications to work on collaborative projects. Teachers guide the students on how to share and interact in networked collaborative learning environments.

A shift from the primacy of verbal thinking to the integration of visual and verbal thinking, Using information technologies students would have extensive experience with video than with print, yet instruction is based primarily on print. However, visual literacy is poorly understood and poorly utilized in perceiving instruction. Teachers need to consider what capacities for visual knowledge and skills students should possess, and determine how they can ensure progress towards developing these capacities.

Information technology can help the teacher on the one hand and facilitates the learners on the other hand. Both, teachers and students get rid of their routine work, and have to play their new roles in new situations respectively. Teachers spend much of their time in assisting the students rather lecturing; and students access the information of their need.

Another important tools in information technology it engages lecturers into research and development, it improve the level of understanding and improve the quality of learning and good teaching environment.

Futures of E-Educational Technology

According to Sharma & Sharma (2006), characteristics of the educational technology are described as below

1. Educational technology applies scientific principles to the problems of education.
2. Educational technology puts emphasis on the development of the methods, procedures and techniques for the successful, useful and effective teaching learning process.

3. Educational technology lays stress on the designing and measuring instruments and tools forth reassessment and evaluation of teaching learning outcomes.
4. Educational technology makes the teaching learning process more facilitated and effective by media, methods, and techniques and by controlling classroom environment.
5. Educational technology is involved in three aspects in education e.g. input, teaching learning process and output.
6. Educational technology includes the applications of electronic media in education as well as systems approach.
7. Educational technology play crucial role as medium of communication.
8. Educational technology is a broad and comprehensive term. It includes different terms e.g., teaching technology, instructional technology, micro teaching, programmed learning and system analysis etc.
9. Educational technology is not the synonyms of the audio visual aids in education but it is broader and comprehensive.

The researcher argued that, e-education in the 21st century is one of the leading systems of learning in the entire world. Today number of country engages in e-education through the application of technology. For example, student would be in Nigeria having lectures, downloading materials from the internet, etc. all of these are done easily and faster, this is trying to demonstrate the power of information technology

ICT in 21st Century

Adebajo, 2016 Argued that, additionally, the concepts of electronic and technology have greatly impacted education around the world, but specifically, Nigeria we have incorporated ICT in educational curriculum for secondary schools, in 2004 edition on national policy on education. The use of ICT in educational industry has promote easy learning and research in Nigerian institutions, and re-manufactures online courses, which have proven to be very effective because it provides a low cost alternative to higher education. Adebajo, noted that, ICT, IN 21ST century has provide easy access to research and development, online materials.

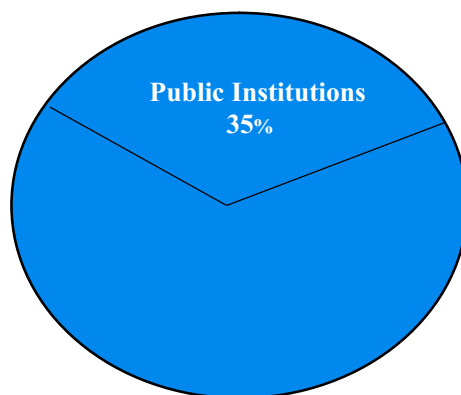


Fig. 1: Application of information and technology in secondary schools in Birnin Kebbi

The application of information and technology in secondary schools in Birnin Kebbi is very low due to the fact that number of factors were associated. The above indicates that, only 35% of schools engage in the study of (ICT)

Conclusion

Information technology is one of the fundamental instrument that bring about development in every country across the world, it has improve the standard of many countries in the globe, particularly, the developed nations such as U.S.A. England, etc. information technology in growing in Africa, particularly, Nigeria which because of some factors that it could not fully achieved the application of information technology in schools particularly, in Kebbi state.

Recommendations

1. Government and the private sector should pull in more effort and resources towards the development of education
2. Educating and re-orientation of teachers, parents and students on the need to discourage examination malpractice in schools
3. More vocational and technical education centers be establish and the few existing ones properly equipped and staffed.
4. An independent inspectorate committee should be put in place to regularly monitor activities in schools as the existing inspectorate unit has seize to function effectively v Government should take over payment of enrolment fees for both primary six examination and secondary schools external examinations.
5. Qualitative and affordable education should be made available for all
6. Schools should be properly staffed and equipped.

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