Information and Communication Technology Skills Possessed by Secondary School Teachers For Effective Implementation of Social Studies Curriculum Contents in Ebonyi State

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ABSTRACT
The study focused on determining information and communication technology skills possessed by secondary school teachers for effective implementation of Social Studies curriculum contents in Ebonyi State. One research question was posed that guided the study. The design of the study was descriptive survey research design and the population of the study comprises 196 secondary school teachers who studied and teach Social Studies. The instrument used for data collection was structured questionnaire and data collected were analyzed using mean and standard deviation. The findings of the study revealed that: secondary school teachers possessed pedagogical competencies in the use of presentation of software to supplement instruction, prepare scheme of work, lesson notes, ICT-based instructional materials, developing and maintaining educational website, solving ICT problems relating to Social Studies instruction, monitoring and evaluating application of ICT in teaching and learning processes. Based on these findings, some recommendations were made such as: Government should organize workshop on ICT application for secondary school teachers and provide well equipped ICT centres in all secondary schools in the state.

INTRODUCTION
The diffusion of technologies in all the facets of the human society is the brain child of globalization. Through these technologies, the world as a global village is not only a possibility but realized through the divulgence of information and communication technologies in all the streams of human endeavour. This achievement is not without obvious challenges, which are experienced more by the developing countries. Roberto and Shahid (2003) rightly observed that one of the many challenges facing developing countries today is preparing their societies and governments for globalization and the information and communication revolution is a genuine concern.

Chiodo and Byford (2006) define information and communication technology as computer based tool used by people to work with information and communication processing needs of organization. Information and Communication Technologies (ICT) is a production-of scientific innovations and inventions that facilitates and ensures easy/quicker management of information. Management of information entails data/information gathering, storage, transmission and manipulation towards achieving specific goals or objectives. According to Isoun (2006) ICT is described as a term that is used to indicate a whole range of technologies included in information processing and electronic communications including the internet, electronic mails, and video conferencing. It encompassed the hardware and software, the network, and several other devices (video, audio, photographic and camera) that can convert information like text, images, and sound into common digital form (Yusuf, 2002). ICT components also include computers, electronic media and all other
electronic accessories such as USB, and CD/DVD used in the storage, transfer and manipulation of information.

Information and Communication Technology (ICT) refers to several kinds of technological application and equipment which are utilized for processing, transmitting or communicating data and information. Akudolu (2003) and Ayo (2002) are of the view that being competent in manipulating ICT facilities describe the acquisition, processing, storage and dissemination of vocal, textual, pictorial and numerical information by a macro electronic based on combination of computer system and telecommunication equipment in information processing. This is indispensable in the contemporary world and generation as it had led to greater innovations and inventions and transformation of socio-economic, cultural and political transformation. This informed Obilie’s (2008) assertion that one of the conditions that is very important in determining the extent to which a nation participates in the global world is her capacity to access world information through information and communication technology.

Abolade and Yusuf (2005) opine that information and communication technology relates principally to studying concept, skills processes, and application of electronic devices. They maintain that ICT is a powerful tool in the teaching and learning situation. The enormous gain of ICTs introduction in all of human endeavors especially in educational sector cannot be over emphasized. It has redefined the methods and processes in research, teaching and learning. It has equally re-shaped and in some localities, introduced new educational programmes like distant learning and on line programmes.

In the education industry, it enhances teaching and learning through its dynamic interactive and engagement in contents and provides real opportunities for individualized instruction. Davis and Tearl (1999) note that ICT has the potential to accelerate, enrich and deepen skills, motivate and engage students in learning. ICT helps to relate school experiences to work practices, strengthen teaching and provide opportunities for connection between schools and the world (Lemke and Coughlin, 1998). These roles expose the importance of ICT to Social Studies education in secondary schools. Social Studies is a subject that provides the knowledge and skills for understanding the structure, dynamics and the problems of the society with a view to finding answers or solution (Ososheim, 1996). It provides man with veritable skills and knowledge to re-shape the society (Osakwe, 2009). As designed during the inception of 6-3-3-4 systems of education in Nigeria, Social Studies is expected to provide young learners with relevant knowledge and skill to understand their physical and social environment and to have confidence in their ability to solve their social and environmental problems and that of the society.

Consequently, the inevitable synergy between ICT and Social Studies education towards empowering students to manage the society for a better life tomorrow, made the Federal Government to introduce ICT into education curriculum, (F.R.N., 2008). Specifically, computer education became one of the pre-vocational electives in secondary schools. In addition, computer and its related technologies became an evolving instrument of study. Schools buy and are given computers by both government and philanthropists to boost academic activities. In Ebonyi State particularly the state government through its Ebonyi State Integrated Development Strategy- (EBIDS) has been distributing computers and internet facilities to secondary schools to facilitate teaching and learning (Daily Sun 19th August 2011).

This huge investment of Ebonyi State government in the ICT in schools made the secondary schools in Ebonyi State the focus of this study. From the foregoing, it is observed that the numerous benefits of ICT can only be realized when teachers who still remain the key to learning have developed the necessary pedagogical skills for instructional use of ICT, According to Akudolu (2008) "there is a global awareness of the centrality of teachers' role in learning process, even in ICT-rich context teachers cannot be replaced by the best technology and no matter what educational system mandates and expects, in the end effective learning is very dependent on the will and skills of the teacher". Skills according to Katane (2006) are the set of applied knowledge, attitudes and experience necessary for future which manifest in activities. Gupta
(1999) defines skill as knowledge, competence, attitudes, values, motivations and beliefs people need in order to be successful in a job. The common understanding related to teachers' skills is divided into three main areas namely field skills, pedagogical skills and cultural skills (Bukjieava, 2003). However, for this study, the area of concern which is ICT skills of secondary schools Social Studies teachers will be discussed. Information and communication technology skills are based on using the tools and technical equipments for teaching, distribution and transferring of knowledge. They include any technology that helps to produce, manipulate, store, communication and disseminate information. ICT skills are concerned with the use of technology for the manipulation and communication of information in teaching learning process.

The inner core of teacher education curriculum pyramid comprises core teacher skills which are grouped into two major clusters: pedagogy and technology. These two clusters of teacher skills are not independent of each other in a curriculum where ICT is infused in pedagogical practice. These themes may be understood as a strategic combination of approaches that help teacher educators develop four core skills necessary for effective use of ICTs in teacher education programs. The core skills may be seen as clusters of objectives that are critical for successful use of ICTs as tool for learning. The level of ICT skills among teachers in Nigerian schools especially in Ebonyi State is determined by a number of factors including: content mastery, pedagogical skill, application, collaboration and networking.

Planning instruction along with content is the most important aspect of infusing technology in the curriculum. Infusing ICT begins with the teachers' mastery of the content of the subjects. As they begin to incorporate ICT in their teaching, they develop new ways of doing things gradually, changing the focus of classroom activities from an emphasis on teaching to an emphasis on learning. The adoption of ICT in the classroom generally proceeds in stages as described below. At first, teachers discover ICT tools such as presentation of software. They begin applying ICT tools in place of previous instructional activities such as preparing a power point presentation in place of a lecture. As teacher become more familiar with ICT in the subjects they teach, they explore new ways of using ICT and how they previously taught begins to change. In time their classroom practice becomes transformed as focus of the classroom becomes learner - centred and students use ICT to solve real-world problems that cut across traditional subject boundaries.

Pedagogy skills include much more, it includes theoretical knowledge and skills of delivering the theoretical knowledge gained from the content of a subject. The theoretical and practical components of pedagogy included in the teacher education curriculum at East China Normal University China as reported by Zhit (2003) are knowledge of learning theories and instructional process and design, assessment and evaluation strategies, planning and designing lesson plans. To these might be added selection and presentation skills. Collaboration and networking are other aspects of pedagogy. The real power of ICT comes from new ways of communicating beyond the four walls of the classroom and by locating information from the world wide sources wherever these may be located. The implication for teachers as they assist their students in collaborating with other learning groups and using networks to research assignment topics. They cease to be main source of knowledge in the classroom. Instead, teachers' roles change from being "a sage on the stage to becoming a guide on the stage" Teachers need to accommodate their philosophical shift from their approach to teaching. A planning guide asserts that the development of teachers' competencies in collaboration and networking is essential to infusing ICT in the curriculum.

Books have been written about the ICT competencies required by teachers in the classrooms of today and tomorrow. At the emerging stage when teachers discover and learn about ICT tools, they need to go through a process similar to that of their students in schools. These competencies often termed ICT literacy, included, knowledge of ICT concepts and operations, Anderson and Vanweert (2002) for example include under ICT literacy the following: basic concepts of ICT, using computer and managing files, word processing, working with spreadsheets, working with databases, composing documents and presentations, information and communication.
Besides the kinds of ICT competencies, relating to concepts and operations, there are many social, healths, legal, and ethical issues associated with the use of ICT about which teachers need to know. The facility for instance to access information easily from remote sources, down load it to a personal computer and then utilize the information in a classroom assignment bring with it a host of social, legal and ethical issues relating to copyright, evaluation of information sources, and appropriate forms of acknowledging electronic information. Health issues arising from extensive use of ICT include consideration of correct posture, placement of hands and wrists on the key boards, avoidance of eyestrain, as well as safety issues concerning power supplies and care of equipments.

At the next stage beyond emerging stage, described as the applying stage, teachers need to learn how to use ICT tools in different subject areas in which they teach. From this stage, teachers need to advance to an understanding of how and when to use ICT tools for particular purpose in teaching as well as for professional and management tasks. Teachers need to have a clear understanding of why ICT is useful to themselves and their student. Allied to the contextual factors of change and lifelong learning, further technology competencies required of teachers are the need to update constantly their skills with hardware and to familiarize themselves with new generation software. Technological skills have an attitudinal dimension also, as Cabanatan (2003) reported, among the ICT skills required of teachers are positive attitude towards ICT and a clear understanding of the education potential required for effective instructional delivery at all levels of education.

The ability of Social Studies teachers to use computer to develop, enhance and expand students understanding of Social Studies as in the context of this study is termed; ICT competency. This study is out to look at the ICT skills possessed by Social Studies teachers in Ebonyi State based on ICT standard stipulated by UNESCO for all countries.

**RESEARCH QUESTION**

One research question was posed to guide the conduct of this study. This is:

What are the ICT skills possessed by secondary school teachers for effective implementation of Social Studies curriculum contents in Ebonyi State?

**METHODOLOGY**

The design of this study was descriptive survey research design aimed at eliciting information from the respondents based on ICT skills possessed by secondary school teachers for implementation of Social Studies curriculum content in Ebonyi State and the population of the study comprised 250 secondary school teachers that studied and teach Social Studies in Ebonyi State. The instrument used for data collection was questionnaire and data were analyzed using mean and standard deviation for the research question. The items that had mean scores above 2.50 were accepted while items that had mean score below 2.50 were rejected.

**PRESENTATION AND DISCUSSION OF RESULT**

<table>
<thead>
<tr>
<th>S/N</th>
<th>Item Focus</th>
<th>X</th>
<th>SD</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The use of presentation of software/media to supplement teaching</td>
<td>3.13</td>
<td>1.40</td>
<td>Accepted</td>
</tr>
<tr>
<td>2</td>
<td>Preparing scheme of work/ lesson notes using ICT devices</td>
<td>3.01</td>
<td>1.48</td>
<td>Accepted</td>
</tr>
<tr>
<td>3</td>
<td>Developing and maintaining education website</td>
<td>2.93</td>
<td>2.05</td>
<td>Accepted</td>
</tr>
<tr>
<td>4</td>
<td>Preparing ICT-based learning materials</td>
<td>3.23</td>
<td>1.08</td>
<td>Accepted</td>
</tr>
<tr>
<td>5</td>
<td>Solving ICT problems relating to Social Studies instruction</td>
<td>3.07</td>
<td>1.15</td>
<td>Accepted</td>
</tr>
<tr>
<td>6</td>
<td>Writing Social Studies education programme</td>
<td>3.11</td>
<td>1.25</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
The results of data analysis as presented in table 1 showed that the respondents accepted that secondary school teachers possessed ICT skills use in presentation of software to supplement instruction, preparing scheme of work, lesson notes, ICT-based instructional materials, developing and maintaining educational website, solving ICT problems relating to Social Studies instruction, monitoring and evaluating application of ICT in teaching and learning processes with the mean rating of 3.13, 3.01, 2.93, 3.23, 3.07, 3.11, 3.05, 2.98, 3.25 and 3.12 with the standard deviation scores 1.40, 1.48, 2.05, 1.08, 1.15, 1.25, 1.21, 2.05, 1.40 and 1.21 respectively, 

The grand mean of all items in table 1 is 3.09 and standard deviation score 1.43 which showed that the respondents accepted that all items in the table are ICT skills possessed by secondary school teachers in teaching Social Studies in Ebonyi State. This implies that with these findings, Social Studies teachers have the ability to use computer to develop, enhance and expand students understanding of Social Studies concept. Agreeing with this, Cabanatan (2003) reports that among the ICT competencies required of teachers are positive attitude towards ICT and a clear understanding of the education potential required for effective instructional delivery at all levels of education.

More so, the finding of the study revealed that Social Studies teachers possessed the skills of solving ICT problems relating to Social Studies instruction, monitoring and evaluating application of ICT in teaching and learning processes. These competencies often termed ICT literacy, included, knowledge of ICT concepts and operations, Anderson and Vanweert (2002) for example include under ICT literacy the following: basic concepts of ICT, using computer and managing files, word processing, working with spread sheets, working with databases, composing documents and presentations, information and communication. Davis and Tearl (1999) note that ICT has the potential to accelerate, enrich and deepen skills, motivate and engage students in learning. In the education industry, it enhances teaching and learning through its dynamic interactive and engagement in contents and provides real opportunities for individualized instruction. ICT helps to relate school experiences to work practices, strengthen teaching and provide opportunities for connection between schools and the world (Lemke and Coughlin, 1998). These roles expose the importance of ICT to Social Studies education in secondary schools.

CONCLUSION

The study focused on determining information and communication technology skills possessed by secondary school teachers in Ebonyi State and the findings of the study revealed that secondary school teachers in Ebonyi State possess the ICT skills that could be used to supplement Social Studies classroom instructional activities. It is the respondents’ opinion that if government and other non-governmental agencies assist in providing ICT centres in all secondary schools in Ebonyi State and organize in-service training on ICT for teachers, the objectives of education in the state will best be actualized since ICT has the potential to accelerate, enrich and deepen skills, motivate and engage students in learning.

Recommendations

- Based on the findings of the study, the researcher made the following recommendations.
- Government should organize workshop on ICT application for secondary school teachers.
- Government should provide well equipped ICT centres in all secondary schools in the state.
- Government should collaborate with private individuals to organize ICT training to serving secondary school teachers in the state.
REFERENCES


8. Santa Monica. Milken Family Foundation


