

TEACHERS' PERCEPTION OF THE INFLUENCE OF INTERNET IN THE GLOBALIZATION OF VOCATIONAL AND TECHNICAL EDUCATION: A CASE STUDY OF A NIGERIAN UNIVERSITY

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Abstract

The study investigated the teachers' perception of the influence of internet in the globalization of vocational and technical education: A case study of a university in Nigeria. The design of the study was descriptive survey type. Twenty Vocational and Technical Education (VTE) teachers from Industrial and Technology Education Department, Federal University of Technology, Minna, were surveyed through the authors' adapted and adopted questionnaire. The instrument for data collection was Globalization and Internet Questionnaires (GIQ). The GIQ contained statements related to respondents' demographic characteristics and likert-scale questions pertaining to teachers' perceptions of globalization and Internet competences. The data collected were analyzed using means and standard deviation statistics. Findings from the investigation reveal that globalization and Internet have positively impacted on VTE teachers in universities education in Nigeria in terms of access to information, teaching, learning, collaboration and contact among VTE teachers, better and faster scholarly communication among researchers as well as students throughout the world. The implication of these revelation is that VTE teachers in Nigerian universities should try to embrace these new technologies through retraining, retooling and then adopt new strategies which would improve teaching, research and information services delivery that would meet international best practices.

Keywords: Globalization, Vocational and Technical Education, Internet resources, Universities

Introduction

Vocational and technical education is that aspect of education that gives its recipients an opportunity to acquire practical skills as well as some basic scientific knowledge (FRN, 2004). Puding (1994) defined vocational-technical education as that type of education which fits the individual for gainful employment in recognized occupation as semi-skilled workers or technicians or sub-professionals. Vocational education could be regarded as that aspect of education which provides the recipients with the basic knowledge and

practical skills needed for entry into the world of work as employees or as self-employed. Vocational education nurtures skills that are necessary for agricultural, industrial, commercial and economic development and thus builds a self-reliant nation. In effect, vocational education is the education that is focused on building a self-reliant society (Jebba, 2012).

Vocational education also called Career and Technical Education (CTE) that prepares learners for jobs that are based on manual or practical activities, traditionally

non-academic and totally related to a specific trade, occupation or vocation, hence the term, in which the learner participates. It is sometimes referred to as technical education, as the learner directly develops expertise in a particular group of techniques or technology (Popoola & Oni, 2005). VET has become a key policy issue as its importance to national economic performance has become generally recognized (Porter, 1990). In the face of rapid technological advance, economic globalization and the intensification of competition both within developed and developing countries, it is now clear that human resources are the key to continuing prosperity in the advanced economies (Oni, 2007).

Economic Commission for African (2000) remarked that globalization refers to changes occurring at global level, which in several ways have not been in the control of individual nation, states and their governments. Globalization is the integration of national economies, culture, social life, technology, education and politics. It is the movement of people, ideas and technology from place to place (Ya'u, 2005; Omekwu, 2006; Chang, 2008). Most researchers agree that globalization rests upon, or simply is, the growth in international exchange of goods, services, and capital, and the increasing levels of integration that characterize economic activity (BERA, 2004; Green, 2005). In this sense, globalization is only another word for internationalization. In a broader view, Panayotou (2000) defines globalization as an on-going process of global integration that encompasses economic integration through trade, investment and capital flows; political interaction; information and information technology; and culture. According to Okrah (2004) a general concept of globalization can be stated as the intensification of worldwide relations

linking one part of the globe with other parts in ways that what happens in one place has happened by events occurring in other distant places. Qiang (2003) observes that the internationalization of education is necessary for preparing college graduates who comprehend the globalization of societies, economies, and labor markets. He further states that these contingencies demand not only specific types of knowledge but also "multilingualism and social and intercultural skills and attitudes" (p. 248). Echezona, Ezema and Asogwa-Eze (2009) reported that globalization and information revolution have positively impacted on higher education in Nigeria in terms of access to information, collaboration and contact among faculty members, better and faster scholarly communication among researchers as well as students throughout the world.

Knowledge of computer technology and computer-based technology has become tremendously important to technical and vocational teachers in the new information age. Vocational and technical teachers have realized the value and usefulness of computer technology in their programs. However, most of them do not have the necessary skills and knowledge to use it effectively for instructional purposes (Buntat, Saud, Dahar, Arifin & Zaid, 2010). In order to ensure that technical and vocational education remain valuable to the educational system, the programme must continue to prepare students for the workplace and society. In order for teachers to do that, they must continue to value computer technology and seek ways to connect program and instructional management with appropriate computer technology, especially the Internet (Filiz, & Yasemin, 2010).

Teachers' competency in computer technology is essential if they are to be successful instructional leaders as they use

and transfer this competency to their students. Certainly, this computer technology foundation is a necessity for all teachers and students (Kotrlik, 2000). Lu (2002) noted that computer technology has a great effect on teaching and learning vocational programs. Computer technologies are developing at a rapid pace, carrying the potential to deliver vocational education to more learners in more satisfactory ways. Vocational education teachers should be encouraged to participate in professional development activities to acquaint them with the uses of ICTs for improving teaching, research and globalization of curriculum.

When comparing Nigeria with developed countries, the educational uses of ICT on vocational education and training schools in Nigeria are still in the infancy stage. Most learners are taught by the traditional approach and often times with the resultant effect of poor performance. Computer assisted learning provides the active participation and hands-on-experience that learners require to construct meaningful learning. Use of Internet has been associated with improvements in people's education, labour market prospects and everyday lives. Since the use of Internet help students gain computer literacy, user rates may indicate how well prepared the current generation of students will be, to enter a workforce where computer literacy is in demand (Silas & Oguzor, 2011).

A phenomenal change through close interaction and integration of cultures is rapidly impacting on the entire world. This change branded globalization is propelled by information and communication technology. Information and communications technologies are computer based tools used by people to work with information and communication processing needs of an organization. Its purview covers computer hardware and software, the network, and other digital devices like video, audio,

camera, and so on, which convert information (text, sound, motion, etc.) into digital form (Moursund & Bielefeldt, 1999).

In the era of globalization, information revolution is a critical factor which is reshaping the education processes. Corgburn and Adeye (1999) have noted that the driving force behind the current information revolution is the new technologies that go with information and communications technology (ICT). These technologies continue to provide enabling environment for global education process in which geographical regions are benefiting one way or the other from the vast opportunities in the global education industry (Geleijnse, 1994).

Internet provides new information environment for scholars and students. These include unlimited access to data bases scattered around the globe. According to Ite (2004), contact, collaboration and communication have provided veritable environment for linkage programmes between and among University. This has definitely added values to higher education globally. However, several challenges face Nigeria and other developing countries in the new information revolution. A nagging issue is the problem of digital divide existing between developed and developing countries. This is glaring when one considers African's web visibility. Studies have provided evidences that Africa has the lowest web presence globally (Peraton & Creed, 2000; Mutala, 2002; Omekwu, 2003; Ya'u, 2005). Mutala's study reveals that Africa's global web contribution is about 1.08%. Similarly, Peraton and Creed (2000) are worried that more than 80% of global website is from North America and Europe and more than 85% of scientific publications are also from the same area. The poor global web presence in African countries is a serious threat to the development of higher education in Nigeria since it will be difficult

for Nigeria to globalize its local educational resources.

Studies have been conducted regarding the perception of computer technology competence among vocational and technical teachers. In 1981, Engstrom identified competencies that the teacher and school staff should have to ensure they can work effectively in schools. McCaslin and Torres (1993) noted that teachers were apprehensive about the use of computer technology in school. Liao (1993) found that teachers in Taiwan who put a high value of computer training felt more comfortable working with computers, and did not have anxiety about working with computers. McCaslin and Torres found that vocational teachers' attitude toward using microcomputers in in-service training is affected by factors of their educational value, confidence in their use, and apprehension about their use. Golden (1997) supported this finding when he stated that teachers, who do not use computer technology, feel uncomfortable with the technology or they lack proper training. Therefore, this study examined the influence of globalization on vocational and technical education teacher and their level of competences towards achieving globalization and best practices.

Statement of the Problems

The world has become a global village. The knowledge of ICT has facilitated the globalization process. However, the digital divide between the developed and developing nations has been of a serious concern to educators. Therefore, paucity of studies on ICT integration in the developing nations needs to be addressed so as to ensure total globalization in the school curriculum. One of the problems facing the development of ICT in schools include the fact that there is limited infrastructural facilities, difficulties in infusing Internet use

into the curriculum and also lack of appropriate teacher development. This has serious implication on developing nations like Nigeria who desire to be one of the industrialize nation by 2020. The perception of teachers' Internet competencies becomes critically important in technical and vocational educational teaching, learning, research, collaboration and other globalized activities. Studies in this area are limited. Therefore, this study investigated the teachers' perception of the influence of internet in the globalization of vocational and technical education in a Nigeria university.

Research Questions

- (i) What is the level of influence of globalization on Vocational and Technical Education (VTE) in Nigeria higher education?
- (ii) What is the level of competence of vocational technical education teachers in the use of internet towards achieving globalization?

Methodology

Design of the Study: Survey research type was adopted for the study. According to Nworgu (2006) survey design is the study of a group of people, collecting and analyzing data from a few people considered to be representatives of the entire group. The design was therefore appropriate for the study since it was to solicit information from vocational and technological teachers through the use of questionnaire on globalization.

Area of the Study: The study was conducted at Federal University of Technology, Minna, Nigeria. The Choice was informed by the fact that this institution is one of the five universities training students on various fields in vocational and technology education at undergraduate and

postgraduate programme, with a large population of experienced VTE teachers, facilities and resource materials needed to carry out the research study.

Population of the Study: The population of the study was lecturers obtained from Federal University of Technology, Minna, Niger State, Nigeria comprising of Twenty four VTE lecturers.

Sample and Sampling Techniques: The sample was made of all 24 VTE teachers in the Industrial and Technology Education Department, Federal University of Technology, Minna, Niger State, Nigeria. Since the sample size was small the entire population was used. The lecturers were from metal work technology, woodwork technology, auto-mechanics technology, building technology, and electrical and electronics technology education options.

Instrument for Data Collection: The survey instrument used for this research was adapted from Echezona, Ezema and Asogwa-Eze, (2009) and adopted from Yusuf and Balogun (2011). The adapted and adoption of the instrument was based on established procedures in literature. The survey instrument contained four sections. Section 'A' focused on demographic information of lecturers: option and status. Section B focused on lecturers' perception on the level of globalization on Vocational and Technical Education (VTE) in Nigeria higher education. The section contained 10 items and the Likert response mode of Strongly Agree (SA coded 4), Agree (A coded 3), Undecided (UD coded 0), Disagree (D coded 2) and Strongly Disagree (SD coded 1) were used. Section C of the questionnaire which contained twelve items addressed the issue of VTE lecturers' Level of Competence on the Use of Internet Resources for Globalization. The section

contained 12 items and the response modes were: "I am fully competent with this application/operation" (FC coded 4); "I am a regular and confident user of this application" (RCU coded 3); "I have used this occasionally but need further training" (DOU coded 2); "I do not use" (DNU coded 1); and "I am not aware of this application/operation" (NA coded 0).

The instrument was face validated by four experts from the Department of Industrial Technology Education, Abubakar Tafawa Balewa University, Bauchi, Nigeria. A corrected version reflecting the experts' advice was used to draft the final copy of the questionnaire.

A pilot testing of the questionnaire was carried out with 12 VTE teachers from Modibbo Adama University of Technology, Yola, Nigeria. Reliability coefficient of 0.87 was obtained using Kuder Richardson (KR-21) formula.

Method of Data Collection: Twenty four copies of the questionnaire were distributed to all VTE lecturers in the university. All the distributed questionnaires were returned and used for data analyses. The responses for the respondents were tabulated and compared, and descriptive analysis (means and standard deviation) were used to answer the research questions.

Method of Data Analysis: Data were analyzed using descriptive data analysis of weighted means (X). The item mean (X) and the criterion means (2.50) were computed and utilized to measure the level of agreement and or disagreement. It was also used to measure the level of Internet competences among vocational and technical education teachers. The decision adopted was that if the item means (X) is greater than criterion mean (2.50), the option is positively rated (agree); if otherwise, the option is rated negatively (Disagree).

Results

Research Question One: What is the level of Influence of globalization on Vocational

and Technical Education (VTE) in Nigeria higher education?

Table 1: Level of influence of globalization on vocational and technical education (VTE) in Nigeria university education

S/N	Items on Influence of globalization	Mean	SD	Decision
1	Globalization provides educational opportunities for VTE to study aboard	3.16	1.28	Agree
2	Globalization improves teaching and learning resources among VTE lecturers in Nigeria	2.76	1.09	Agree
3	Globalization has encouraged VTE' lecturers to published in reputable journals across the globe	3.44	0.51	Agree
4	Collaboration among researchers has been improved by Globalization	3.52	0.51	Agree
5	Globalization does not promote VTE indigenious knowledge in Nigeria	2.08	1.55	Disagree
6	Globalization of vocational and technical education curriculum has improved standard of education	2.96	0.84	Agree
7	Globalization promotes foreign culture	2.28	1.06	Disagree
8	Globalization exposed VTE lecturers' to international conferences and workshops	3.28	0.84	Agree
9	Globalization has enriched the VTE teachers' knowledge and skills on latest technology	3.52	0.71	Agree
10	Globalization is a modern way of slave trade to developing nation	2.08	1.19	Disagree

The results in Table 1 revealed that respondents agreed with items 1, 2, 3, 4, 6, 8 and 9 respectively. However, for items 5, 7 and 10, the respondents disagree that globalization has negative influence to vocational and technical education in particular and Nigeria in general. This signifies that most of the respondents agreed that globalization has positive influence on vocational and technical education in

Nigeria.

Research Question Two: What is the level of competence of teachers in the use of Internet resources for globalization?

The VTE teachers' competence in the use of Internet resources for globalization is shown in table 2.

Table 2: Level of competence of VTE teachers in the use of Internet resources for globalization

S/N	Items	Mean	SD	Decision
1	I can access an Internet site via its website address.	3.72	0.61	Agree
2	I can download files from the Internet.	3.36	0.64	Agree
3	I can send and receive e-mail messages.	3.44	1.12	Agree
4	I can attach files to outgoing e-mails.	3.44	0.71	Agree
5	I can sort messages and file in created folders	3.08	1.26	Agree
6	I can save a document in various file formats including HTML.	2.80	1.41	Agree
7	I can save text and images from web pages.	3.08	1.18	Agree
8	I can communicate online with other students on homework / assignment.	2.64	1.38	Agree
9	I can use web search engines (google, alltheweb, altavista, etc) very well.	2.96	0.68	Agree
10	I can do deep web searching using appropriate meta-search engines (Surf Wax, Vivissimo, HotBot, etc.) very well.	2.28	1.49	Disagree
11	I can use web authoring tools.	1.84	0.90	Disagree
12	I can chat on the Internet using instant messaging tools (Yahoo, MSN, Skype, etc.)	2.56	1.12	Agree

The results in Table 2 are on teachers' competence in the use of Internet resources for globalization. Results showed that most of the respondents agreed with the items 1, 2, 3, 4, 5, 6, 7, 8, 9 and 12 respectively. This indicates that vocational and technical education teachers have Internet knowledge and competences. Therefore, they can use it for globalization of teaching, learning, information sharing, research publication and many others. However, majority of the respondents claims that they cannot use web authoring tools and Internet for deep web searching.

Discussion of the Findings

The results of research question one reveals that the respondents have positive perception on the influence of globalization on vocational and technical education in Nigeria university education. From table 1, the respondents agreed that that, globalization provides educational opportunities for VTE to study abroad, it improves teaching and learning resources

among VTE lecturers in Nigeria, it has encouraged VTE' lecturers to published in

reputable journals across the globe, it has improves collaboration among researchers across the world and internationalization of school curriculum. In addition, it has exposed VTE lecturers' and other lecturers in Nigeria to international conferences and workshops which invariably enriched the their knowledge and skills on latest technology. All these were rated higher by respondents with item mean (\bar{X}) of 3.52 to 2.76 as against the criterion mean of 2.50. Similar, the respondents disagree on the negative influence of globalization such as globalization is a modern way of slave trade to developing nation, and that globalization does not promote VTE indigenous knowledge in Nigeria. These findings was supported by the findings of Echezona, Ezema and Asogwa-Eze (2009) who found that globalization has opened up a wider horizon for co-researchers, not only in Nigeria, but also in other developing countries. Internationalization of resources

has permitted researchers and scholars with different culture and locations to show-case what is obtainable in their environment. They added that, scholars in Nigeria can as a result of globalization, today access simultaneously resources in other Universities without traveling to the physical locations.

The results of research question two reveals that the respondents have adequate knowledge and competences on the use of Internet towards achieving globalization practices. As shown in Table 2, most of the items were rated positive. However, only two out of twelve items were rated negative. The study showed in Table 2 that internet is an important tool for accessing information in universities in Nigeria. One of the ways the revolution has exerted much impact is in the area of access to information. Access to information in higher education in Nigeria has shifted much from traditional library bibliographic search to the globalized information. The use of Internet has gave birth to e-books, e-library, e-mail, e-journal, and many others. Generally speaking, it has improved teaching and learning in higher education in Nigeria.

This finding was corroborated by the work of Geleijnse (2004). He found that since the advent of internet service at the Tilburg University, Netherlands, teachers and students were regarding the library as workplace and database software and communication facilities were used extensively by staff and students. Today, there is more communication through the use of telecommunication technologies and the internet for research collaborations. This study has revealed that Internet has encouraged shift from traditional method of using chalk-board and other local instructional materials to facility teaching and learning and since then web viability of Nigerian scholar is becoming more prominent. This is an improvement from

studies of Corgburn and Adeya (1999), Mutala (2002) and Ya'u (2005).

Conclusion

In this study, it was discovered that VTE teachers have positive influence towards globalization. The investigation revealed that globalization and internet have positively impacted on VTE in university education in Nigeria in terms of access to information, collaboration and contact among faculty members, better and faster scholarly communication among researchers as well as students throughout the world. The implication of these revelation is that vocational and technical education teachers in university environment should try to embrace these new technologies through retraining, retooling and then adopt new strategies which would improve information services delivery that would meet international best practices.

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