

**SKILLS DEVELOPMENT NEEDS OF TECHNICAL EDUCATION LECTURERS IN  
USE OF TECHNOLOGY FACILITIES AND SOCIAL MEDIAS FOR  
INSTRUCTIONAL ACTIVITIES IN NIGERIA**

**Efuwape, Bamidele Michael,**

Vocational and Technical Education Department,

Tai Solarin University of Education,

Nigeria.

efuwapebm@tasued.edu.ng

+2348153834560

**Odumosu, Odumuyiwa**

Vocational and Technical Education Department,

Tai Solarin University of Education,

Nigeria.

odumosuoo@tasued.edu.ng

+2348055825503

**Shodeinde, Abidemi Olufemi.**

Vocational and Technical Education Department,

Tai Solarin University of Education,

Nigeria.

### **Abstract**

*The study investigated the skill development needs of technical education lecturers in use of technology facilities and social medias for instructional activities in Nigeria. The study adopted a descriptive survey design. Four research questions and two hypotheses guided the study. The population for the study comprised 75 technical education lecturers from 5 tertiary institutions offering the programme in South-Western part of Nigeria. A sample of 67 respondents was selected from the 5 higher institutions for the study. The instrument used for data collection was a structured questionnaire. The instrument was validated by three experts. A reliability coefficient of 0.74 was obtained using Crombach alpha technique for determining the reliability of the instrument. Data collected were analyzed using mean and standard deviation for research questions and Analysis of Variance for testing the hypotheses at 0.05 level of significance. The study found with average means of 1.67 and 1.71 that technology facilities are moderately available for lecturers' use and that lecturers are familiar with some social media sites respectively. The study revealed with average means of 3.22 and 3.32 that skill development in use of technology facilities and social medias respectively are highly needed by technical education lecturers for instructional activities. Based on the findings, it was recommended that more technology facilities be provided for carrying out instructional activities in Nigeria higher institutions and lecturers should be trained in the use of those facilities. Also, skill development trainings should be organized to equip technical education lecturers in use of technology facilities and reigning social medias for instructional facilitation.*

**Keywords:** Skill Development, Technical Education Lecturers, Technology Facilities, Social Medias, Instructional Activities.

## **Introduction**

Vocational and technical education is a broad field of study comprising some specialty areas in technical education, business education and home economics education. Odu (2011) described vocational and technical education as any kind of education which has the main purpose of preparing one for employment in recognized occupation while Winer (2000) described technical education as programme designed to develop skills, abilities, understanding, attitude, work habits and appreciation encompassing knowledge and information needed by workers to enter and make progress in employment on a useful and productive basis. It is a field of study which is designed to train individuals in knowledge and skill acquisitions for 21<sup>st</sup> century work place relevance and self-employment. The 21<sup>st</sup> century work place activity is largely characterized by technology applications which have changed the requirement for successful industrial operations from ordinary skills to technology skills. Hence, the importance of using technology facilities in teaching-learning process.

Pernia (2008) define ICT as technologies used to communicate in order to create, manage and distribute information. These are devices and applications used to access, manage, integrate, evaluate, create and communicate information and knowledge. It includes services and applications used for communication and information processing functions associated with these devices. Technology has resulted in significant changes in the workplace. This has altered the manner of operations across fields among which vocational and technical education is not excluded. Each of the specialty areas of technical education requires technological skills for successful operations. Technology makes it possible to telecommute, work from virtual offices and communicate with businesses and individuals across the globe. Flexible work schedules are popular because so many duties and responsibilities can be accomplished from an employee's home or while the employee is traveling. Also, many technology appliances are produced to facilitate different activities which require expertise

for operations. Some of the prominent technological inventions, improvements and applications which facilitate these include the use of computer systems, internet, Video conferencing technology, social media among others. This has reduced the number of qualified candidates and makes employment more competitive and challenging.

Technological devices have risen in popularity due to the fact that it provides connectivity almost at any location and it also changes people's life. It is also used for communication between computers and other devices, like modem is used normally for internet communication. According to Shachaf (2008), advances in technology facilitate communication and the sharing of information among team members; it may also impact team effectiveness. Information and communication technology is nothing without technological devices. Abdel-Wahab (2009) reveals that, barriers of time and distance have been overcome by the use of technology. It reduces many expenses in the government organization, industries, health organization, enterprise, home users, educational institutions, and cultural organizations. Technology devices have been helpful to this twenty-first century in implementing different types of ideas to make life easier for human. Some of these technology devices are iPad, iPod, webcam, projectors, mobile phones, computers, printers etc.

The dominance of ICT in the world of work has laid credence on the importance of technology adoption and integration into teaching and learning process of the students who are the prospective workforce. Technology facilities could be used to facilitate teaching and learning processes in a more efficient and effective way some of which include use of computers, the internet, telephone, television, radio and audio-visual equipment, projectors, animations, simulations, IPAD, IPOD and software such as Microsoft word, excel, power point, Corel Draw and Adobe among others. The use of these technologies in the classroom teaching-learning is very important for it provides opportunities for students to operate, store,

manipulate, and retrieve information, encourage independent and active learning, and self-responsibility for learning, it also motivate lecturers to continue learning outside school hours, plan and prepare lessons and design materials such as course content delivery and facilitate sharing of information. The inability of the lecturers to be versatile in the use of these technology devices would hinder higher productivity obtainable through the use of ICT. This versatile instrument has the capability not only of engaging students in instructional activities to increase their learning, but of helping them to solve complex problems to enhance their cognitive skills.

Reid (2002) indicated that technology devices offers students more time to explore beyond the mechanics of course content allowing them to better understand concepts. The use of technology devices also changes the teaching and learning relationship. Based on the findings of Reid's study, teachers reported that the relationship between teacher and learner is sometimes reversed with regards to information technology. This relationship boosts students' confidence when they are able to help teachers with technical issues in the classroom. Therefore, technological devices changes the traditional teacher centered approach, and requires teachers to be more creative in customizing and adapting their own material. One of the most recently used technologies is the social media.

Social media are [computer-mediated](#) tools that allow people to create, share or exchange information, ideas, and pictures/videos in [virtual communities](#) and [networks](#). Social media is also defined as "a group of Internet-based applications that build on the ideological and technological foundations of [Web 2.0](#), and that allow the creation and exchange of [user-generated content](#). Furthermore, social media depend on mobile and web-based technologies to create highly interactive platforms through which individuals and communities share, co-create, discuss, and modify user-generated content. They introduce substantial and pervasive

changes to communication between businesses, organizations, communities, and individuals (Wikipedia).

New developments in the technological world such as the social media have made the internet an innovative way for individuals and families to communicate. Social media networks have created a phenomenon on the internet that has gained popularity over the last decade. People use social media sites such as Facebook, Twitter, and Myspace to create and sustain relationships with others (Boyd 2007). These social media sites let those who use them create personal profiles, while connecting with other users of the sites. Users can upload photographs, post what they are doing at any given time, and send personal or public messages to whomever they choose. In this “information age,” social media sites seem to be growing in popularity rapidly, especially among young adults (Pempek 2008).

In particular, college students form a large proportion of users on social media networks. Lenhart, Purcell, Smith, and Zickuhr (2010) found that 72% of all college students have a social media profile with 45% of college students using a social media site at least once a day. Many of these young adults use social media networks to communicate with family, friends, and even strangers. Social media sites have created new and non-personal ways for people to interact with others and young adults have taken advantage of this technological trend. The purpose of this study was to examine how social media affects college student’s communication with others and how their own self-concept.

Social media technologies take on many different forms including [blogs](#), [business networks](#), [enterprise social networks](#), [forums](#), [microblogs](#), [photo sharing](#), [products/services review](#), [social bookmarking](#), [social gaming](#), [social networks](#), [video sharing](#) and [virtual worlds](#). The use of these social media and other technology devices have so many advantages on education as it open students ideas and thinking system and provide a very good awareness on how the world is growing and how they can profound solution on their own

without help from lecturers and teachers. The ICT should be used as a pedagogically powerful tool for the construction and modelling of knowledge. [Abimbade \(1998\)](#) reported the benefits of ICT to lecturers in the areas of teaching as: increase the time learners devote to learning, enhance the speed of availability of data and information, provide immediate feedback, and assist less qualified teachers, increase teacher's efficiency and effectiveness.

Even though the relationship between technology and learning is complex, research indicates that specific uses of technology can improve student outcomes. While the availability of technology in the classroom does not guarantee impact on student outcomes (Dynarski 2007), when used appropriately, it can help to improve students' performance on achievement tests (Wenglinsky, 2006). Several studies argue that the use of new technologies in the classroom is essential for providing opportunities for students to learn to operate in an information age. It is evident, as Yelland (2001), argued that traditional educational environments do not seem to be suitable for preparing learners to function or be productive in the workplaces of today's society. She claimed that organizations that do not incorporate the use of new technologies in institutions cannot seriously claim to prepare their students for life in the twenty-first century. This argument is supported by Grimus (2000), who pointed out that "by teaching ICT skills in higher educational institutions the students are prepared to face future developments based on proper understanding".

[Yusuf \(2004\)](#) identified three major ways of using ICT for teaching and learning which include Information Technology (IT) assisted learning, Technology as a tool and Computer and information science. Information technology (IT) assisted learning involves interaction between a student and computer system designed to help the students learn (drill and practice, tutorials, simulations and virtual realities), while technology as a tool involves the use of a large array of hardware and software: word processors, graphic packages; digital camera, presentation applications, database and spreadsheet, among others. These hardware and

software do not have limited educational purpose, but they are designed to help people extend their abilities to do work.

[Abimbade](#) explained further that one needs to be literate in the use of computers to effectively use them in teaching. [Agbatogun \(2006\)](#) discovered that the global technological wave is affecting every sector and every aspect of teachers' life weather male or female, experienced or inexperienced, humanities, science or vocationally oriented need to struggle zealously to be computer literate in order to face the present educational challenges. However, these advantages are hindered by the presence of several challenges that arises from the use of various technology devices and social media which include the need for expensive infrastructures, large startup cost, finding quality and well skilled lecturers or instructors which may diminish the student's interpersonal, social, and communication skills. (these actually necessitated the study on skill development needs for lecturers to be able to move forward in quality instructional delivery with every emerging technologies and the social networks).Inability of the trainers to employ technology in the training programme would lead to production of unemployable graduates in this technology-based century. The trainers in this field are the technical education lecturers.

Technical education lecturers are the classroom teachers that are delivering the content of each course in technical education to the students. In the present educational institutions in developed and developing countries of the world, it is required that teachers and lecturers must be prepared to provide technology-supported learning opportunities for their students. Schools and classrooms in elementary, secondary, and tertiary institutions requires teachers who are equipped with information and communication technology (ICT) resources and skills, and who can effectively teach the content in subject matter while incorporating technology concepts and skills. Aduwa (2009) stated in his research that there is hardly any doubt that traditional practices can no longer provide prospective teachers with all the



required skills for teaching in the classroom. Tapscott (1999) acknowledged that a whole generation of teachers needs to learn new tools, new approaches and skills. Roberts (1999) ascertained that the exponential increases in computing and telecommunication capacity and new, affordable, technology-based approaches for developing and delivering education and training are challenging the very essence of accepted practice. Topper (2004), and D’Onofrio (2006) recommended in their various studies that teachers must understand and master various modern learning technologies, as well as demonstrate their competence using extensive behaviors.

Many teachers have struggled with integration of technology into the classroom (Efaw, 2005). Sprague (1988) said that faculty members feel increasingly unprepared to integrate technology into the classroom, and Efaw (2005) reported that little has been done to prepare reluctant teachers for the networked computers found in the classrooms.

As Lowther (2008) also stated there are three important characteristics needed to develop good quality teaching and learning with technology devices: autonomy, capability, and creativity. Autonomy means that students take control of their learning through their use of technological devices. In this way, they become more capable of working by themselves and with others. Teachers can also authorize students to complete certain tasks with peers or in groups. Through collaborative learning with technology devices, the students have more opportunity to build the new knowledge onto their background knowledge, and become more confident to take risks and learn from their mistakes.

Watts-Taffe (2003) found that teachers can act as catalysts for the integration of technology through ICT. If the encouragement, equipment, and necessary technological support are available from institutes for the teachers, developing a class with the use of technology devices will be easier for them. The main responsibilities of these teachers will be

changing their course format, creating and explaining the new assignments, and arranging for the computer lab through their technology learning specialists or assistants.

Skill is the [learned](#) ability to carry out a task with pre-determined results often within a given amount of [time](#), [energy](#), or both. In other words the abilities that one possesses. Skills can often be divided into [domain](#)-general and domain-specific skills. For example, in the domain of work, some general skills would include [time management](#), [teamwork](#) and [leadership](#), self-motivation and others, whereas domain-specific skills would be useful only for a certain [job](#). “Skill” is widely regarded as a focus for analytical research and as a core object for policy interventions in the modern global high-technology era. A substantive body of evidence shows that different skill levels have large economic effects for individuals, employers, regions and whole national economies. Skill usually requires certain environmental stimuli and situations to assess the level of skill being shown and used. People need a broad range of skills in order to contribute to a modern [economy](#). A joint American Society for Training and Development (ASTD) and [U.S. Department of Labor](#) study showed that through [technology](#), the workplace is changing, and identified 16 [basic skills](#) that employees must have to be able to change with it, these skills are: labor skills, life skills, people skills, social skills, soft skills, hard skills, mastering skills, amongst others while development is simply an event constituting a new stage in a changing situation.

Skills development is high on the sustainable growth agenda of developing countries. The United Nations Development Program (UNDP) Report (2000/2001) noted that developing the capacity to integrate ICT into the national economy depends on people with practical skills, and such people are the product of massive investments in education and training. Those countries which depended on their cheap labour force and exports for economic growth, are increasingly finding that their growth is being limited by the deteriorating terms of trade and vulnerability to other countries’ troubles. This was made clear by the recent global financial

crisis and the ongoing economic recession in many advanced countries. In the wake of the global financial crisis, developing the country's economies are now adapting their development strategies and taking up the challenge of "rebalancing growth" towards greater reliance on domestic and regional demand (OECD/International Labour Office, 2011).

According to researchers, 10% of your development should come from training, including classes, seminars, webinars, podcasts, conferences, etc. while the other 90% comes from interaction with friends and on-the-job activities and action learning. This can include development experiences like managing a project, serving on a cross-functional team, taking on a new task, job shadowing, and job rotation (Effiong 2009).

Nzimande (2009), states that "For our country to achieve high levels of economic growth and address our social challenges of poverty and inequality, we must work together to invest in education and training and skills development to achieve our vision of a skilled and capable workforce to support an inclusive growth path.

Twenty-first-century teachers are required to develop the skills that will enable them to maximize the use of the computer as a teaching resource to enhance student learning and to prepare students to master high technology society, in which lifestyles, attitudes, and skills are challenged daily (Ministerial Advisory Council on the Quality of Teaching, 1995). To achieve this, there is a need for extensive preparation, adequate time, and ongoing support for teachers to ensure they have the knowledge, skills, and confidence in teaching with ICT. The need to provide teacher education programs and professional development facilities for practicing teachers and preservice teachers cannot be overemphasized. There is no doubt that the major challenges to be encountered in the integration of ICT in the classroom will be the pedagogical implications, the impact on the structure and content of curriculum, classroom organization and practice, and the changed role of the teacher (Ministerial Advisory Council on the Quality of Teaching, 1995).

[Kitschner \(2003\)](#) identified the following competencies required by lecturers in ICT application in education. These include: competence to make personal use of ICT, competence to master range of educational paradigms that make use of ICT, sufficient competence to make use of ICTs as mind tools, competence to make use of ICT as a tool for teaching, competence in mastering a range of assessment paradigms which make use of ICT, competency in understanding the policy dimensions of the use of ICT for teaching and learning.

Lecturers in tertiary institutions are involved basically in two things: teaching and research, with auxiliary administrative assignments. The ICTs have the potentials of not only ensuring effectiveness and efficiency in these two areas of teaching and learning; they have the potentials of erasing the administrative duties. According to [Organization for Economic Co-operation and Development \(2005\)](#) and [Gbenga \(2006\)](#) ICT can work in a number of general ways: It can be used to help in school administration, it can be used to train students in skills which they will need in further education and as an ongoing learning process throughout the rest of their lives and for their future jobs, e.g., word processing, e-mail communications etc. It can also provide access to information and communication outside the classroom e.g. via the Internet, It can be used to support teacher development via external networks, and it can support and potentially transform the learning and teaching process.

ICT has a number of features which it particularly suitable for tertiary education. According to research, it combines and integrates a full range of media essential for effective learning. The ICT uses sounds, vision, text and numeric data. It also provides lecturers with new opportunities and in particular distance learning and involvement in the real-world. There is an opportunity to increase the interest and involvement of students by the one to one relationship provided by the student and computer. It also helps students with opportunity with an opportunity to work and learn on their own.

When teaching and learning process is assessed critically in tertiary institutions in Nigeria, it could be observed that the challenge for lecturers in tertiary institutions is no longer in covering the course contents or in adopting appropriate teaching pedagogy, but it is in having access to ICT and using it to embrace teaching and learning ([Olaofe, 2005](#)). [Olaofe](#) argued that such a grasp of ICT should be within the capabilities of most people, regardless of age, area of discipline, gender, or educational experience.

### **Statement of the Problem**

Like many facet of our natural life, education is undergoing constant changes in the advent of information and communication technology (ICT). The arrival of new technologies has heralded a revolution of the world of learning and delivery system in education. This has led to globalization of education. However, as the educational sector is faced with series of changes and reforms; it is good to reflect on matters concerned with dissemination of technical education knowledge in a way that will enhance academic performance of students studying technical education in Nigerian institutions and their relevance to the 21<sup>st</sup> century society after graduation. Numerous teaching strategies have been developed which correspond to the accommodation of students need and diverse learning, one of such strategies involve the use of technology devices and social media.

The skills needed by academic instructors in actualizing the integration and use of these technological opportunities for effective instructional delivery is the worry of this study. Based on the fact that Nigeria like other developing countries is still in the initial stages of integrating technology devices and social media in teaching-learning process which is limited by a number of barriers among which is information technology illiteracy among teachers in the country which cuts across primary, secondary schools and tertiary institution; this study therefore investigated the skill development needs of technical education lecturers in use of

technology facilities and social medias for instructional activities in tertiary institutions in Nigeria.

### **Purpose of the Study**

The main purpose of this study was to investigate the skill development needs of technical education lecturers in use of technology facilities and social medias for instructional activities in tertiary institutions in Nigeria. Specifically, the study would:

- i. Investigate the technology facilities which technical education lecturers have access to in tertiary institutions in Nigeria.
- ii. Investigate the social medias with which technical education lecturers are familiar with.
- iii. Identify the skills needed by technical education lecturers in use of technology facilities for instructional activities.
- iv. Identify the skills needed by technical education lecturers in use of social medias for instructional activities.

### **Research Questions**

The following research questions guided the study:

- i. What are the technology facilities that are available for technical education lecturers in tertiary institutions in Nigeria?
- ii. What social medias are technical education lecturers familiar with?
- iii. What are the skills needed by technical education lecturers in the use of technology devices for instructional activities?
- iv. What are the skills needed by technical education lecturers in the use of social medias for instructional activities?

### **Hypotheses**

H<sub>01</sub>: There is no significant difference in the responses of lecturers specializing in electrical/electronics technology, building/woodwork technology and automobile/metal work

technology on skill development needs in use of technology facilities for instructional activities.

H<sub>02</sub>: There is no significant difference in the responses of lecturers in electrical/electronics technology, building/woodwork technology and automobile/metal work on skill development needs in use of social medias for instructional activities.

## **METHODOLOGY**

### **Research Design**

The study adopted a survey research design.

### **Population of the Study**

The population for this study comprised 75 technical education lecturers from 5 tertiary institutions offering the programme in South-West, Nigeria.

### **Sample and Sampling Techniques**

The sample for this study comprised of 67 technical education lecturers randomly selected from the 5 tertiary institutions offering technical education programme in South-West, Nigeria.

### **Research Instrument**

The research instrument that was used for the study was a structured questionnaire. The questionnaire consisted of two sections; Section A and Section B. Section A solicited for the demography data of the respondents while Section B consisted of items which elicited information from technical education lecturers on skill development needs in use of technology devices and social media for instructional activities in tertiary institutions in Nigeria. Items regarding availability of technology devices are developed with a scale of very highly available, highly available, moderately available and not available, while items on social network sites are developed with a scale comprising very familiar, moderately familiar, and Not familiar. The items generated on the skills needs of lecturers both on technology

facilities and social network sites are developed with a scale comprising very highly needed, highly needed, moderately needed and not needed.

### Validity of Instrument

The instrument used for the study was validated by three experts in the field.

### Method of Data Collection

The researcher with 4 research assistants administered the questionnaires to the respondents in the selected higher institutions.

### Method of Data Analysis

The data were analyzed using mean and standard deviation for research question while the hypotheses were tested using Analysis of Variance at 0.05 level of significance.

## RESULTS

### Research Question 1:

What are the technology devices that are available for technical education lecturers in tertiary institutions in Nigeria?

**Table 1: Mean Responses on Technology devices available for Technical Educational lecturers.**

S/N	Item	Mean	S. D	Remark
1	Internet facilities required for aiding research, teaching and learning in the classroom.	2.28	1.14	MA
2	Personal laptops for individual lecturer.	3.16	0.81	HA
3	Provision of Computer systems in each lecturer's office for academic purpose.	2.02	0.86	MA
4	Availability of projector in each classroom of the institution.	1.34	0.54	NA
5	Interactive white board for aiding teaching and learning.	1.25	0.50	NA
6	AutoCAD software for aiding design and drafting in the programme.	1.36	0.54	NA
7	Software such as Corel Draw and Adobe among others for lecturers use.	1.36	0.54	NA
8	Microsoft PowerPoint for presentations in each classroom of the institution.	1.29	0.46	NA
9	Word processor like Microsoft word in each classroom and lecturers offices in the institution.	1.49	0.66	NA



10	IPad and IPods for lecturers use to aid research	1.15	0.36	NA
<b>Mean Average</b>		1.67		

*Source: field work, 2015*

The table presents mean responses on technology devices available for lecturers use for instructional activities. The table revealed that items 1 and 3 are moderately available while item 2 is highly available. The table shows further that items 4 to 10 are not available. An average mean of 1.67 shows that identified technology devices for lecturers use for instructional activities is moderately available.

**Research Question 2:**

What are the social network sites that technical education lecturers are familiar with?

**Table 2: Mean Responses on Social network sites that Technical Educational lecturers are familiar with.**

S/N	Items	Mean	S.D	Remark
1	Facebook	2.79	0.41	<b>VF</b>
2	Twitter	2.42	0.61	<b>MF</b>
3	LinkedIn	1.64	0.60	<b>MF</b>
4	Netlog	1.39	0.55	<b>NF</b>
5	Myspace.	1.51	0.66	<b>MF</b>
6	Google Plus+	1.88	0.79	<b>MF</b>
7	Instagram	1.83	0.73	<b>MF</b>
8	Ask.fm	1.18	0.46	<b>NF</b>
9	MeetMe	1.36	0.51	<b>NF</b>
10	Classmates.com	1.14	0.34	<b>NF</b>
<b>Mean Average</b>		<b>1.71</b>		

*Source: field work, 2015*

The table presents mean responses on the social network sites that technical education lecturers are familiar with. The table reveals that most lecturers are very familiar with only Facebook while they are moderately familiar with twitter, LinkedIn, Myspace, Google Plus+ and Instagram. The table further shows that lecturers are not familiar with Netlog, Ask.fm, MeetMe and Classmate. An average mean of 1.71 shows that lecturers are moderately familiar with most identified social medias.

**Research Question 3:**

What are the skills needed by technical education lecturers in the use of technology facilities for for instructional activities?

**Table 3: Mean Responses on Skill development needs of technical education lecturers in the use of technology facilities for instructional activities.**

S/N	Items	Mean	S. D	Remark
1.	Identifying different technology devices required for each educational purpose	3.52	0.71	<b>VHN</b>
2.	Accessing the internet.	3.58	0.63	<b>VHN</b>
3.	Surfing the internet.	3.40	0.68	<b>HN</b>
4.	Operating an e-mail account.	3.39	0.85	<b>HN</b>
5.	Powering a computer system.	3.28	0.74	<b>HN</b>
6.	Installing different software.	2.91	0.85	<b>HN</b>
7.	Manipulating software programs for educational purposes.	3.12	0.73	<b>HN</b>
8.	Powering a projector.	2.90	0.86	<b>HN</b>
9.	Preparing power point slides.	3.63	0.67	<b>VHN</b>
10.	Using power point accessories for enriching presentation.	3.57	0.63	<b>VHN</b>
11.	Skills for effective use of Microsoft Word.	3.79	0.51	<b>VHN</b>
12.	Skills for effective use of Corel Draw	2.43	1.09	<b>MN</b>
13.	Skills for effective use of AutoCAD and other application software.	2.42	1.12	<b>MN</b>
14.	Downloading and uploading information on the internet.	3.30	0.74	<b>HN</b>
15.	Skills in use of iPod and iPads features for academic activities.	3.06	0.82	<b>HN</b>
<b>Mean Average</b>		<b>3.22</b>		

*Source: field work, 2015*

The table presents mean responses on skills needs of technical education lecturers in the use of technology facilities for instructional activities. The table revealed that items 1, 2, 9, 10 and 11 are very highly needed while item 3, 4, 5, 6, 7, 8 and 14 are highly needed. Furthermore, items 12 and 13 are moderately needed while none of the items is considered not needed. An average mean of 3.22 shows that skills development in use of technology facilities are highly needed by technical education lecturers for instructional activities.

#### **Research Question 4:**

What are the skills needed by technical education lecturers in the use of social network sites for instructional activities?

**Table 4: Mean Responses on Skill development needs of technical education lecturers in the use of social network sites for instructional activities.**

S/N	Item	Mean	S. D	Remark
1.	Identifying usable social network site for educational purposes.	3.61	0.52	VHN
2.	Registering with a social network site.	3.40	0.52	HN
3.	Supplying personal information on the site.	3.18	0.83	HN
4.	Uploading personal pictures and relevant pictures on the site.	3.24	0.80	HN
5.	Posting information on the sites.	3.34	0.67	HN
6.	Sending messages to different users on the sites.	3.25	0.70	HN
7.	Blogging with group members and other users.	3.30	0.63	HN
8.	Chatting with other social network site users.	3.21	0.77	HN
9.	Creating groups for personal/educational purposes.	3.30	0.72	HN
10.	Creating chat rooms or discussion forum on educational purposes.	3.31	0.63	HN
11.	Sending instant messages to social network users	3.24	0.74	HN
12.	Uploading videos on educational programs for other users	3.40	0.61	HN
13.	Downloading pictures and videos on educational programs from the site.	3.36	0.60	HN
14.	Receiving and responding to messages from other users from the site.	3.40	0.61	HN
15.	Accessing and using updates on the sites.	3.28	0.74	HN
<b>Average Mean</b>		<b>3.32</b>		

*Source: field work, 2015*

The table presents responses on skills needs of technical education lecturers in the use of social network sites for instructional activities. The table revealed that items 1 is very highly needed while item 2 to 10 are highly needed. An average mean of 3.32 shows that skill development in use of social medias are highly needed by technical education lecturers for instructional activities.

**Hypotheses one:**

There is no significant difference in the responses of lecturers specializing in electrical/electronics technology, building/woodwork technology and automobile/metal work on skill development needs in use of technology facilities for instructional activities.

**Table 5: Analysis of Variance showing differences in responses of lecturers specializing in electrical/electronics technology, building/woodwork technology and automobile/metal work on skill development needs in use of technology facilities for instructional activities**

**ANOVA**

<b>Programme Specialization</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>	<b>Remark</b>
<b>Between groups</b>	9.603	3	4.802	.076	.927	NS
<b>Within groups</b>	6575.294	64	63.224			
<b>Total</b>	6584.897	67				

*Source: field work, 2015*

The table presents the difference in the responses of lecturers in electrical/electronics technology, building/woodwork technology and automobile/metal work on skill development needs in use of technology facilities for instructional activities. The table revealed a non-significant difference between the groups (df = 64; F = .076; p>0.05). Thus, hypotheses one was rejected. Hence, there is no significant difference in the responses of lecturers in electrical/electronics technology, building/woodwork technology and automobile/metal work on skill development needs in use of technology facilities for instructional activities.

**Hypotheses two:**

There is no significant difference in the responses of lecturers in electrical/electronics technology, building/woodwork technology and automobile/metal work on skill development needs in use of social medias for instructional activities.

**Table 6: Analysis of Variance showing differences in responses of lecturers specializing in electrical/electronics technology, building/woodwork technology and automobile/metal work on skill development needs in use of social medias for instructional activities.**

**ANOVA**

<b>Programme Specialization</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>	<b>Remark</b>
<b>Between Groups</b>	9.603	3	4.802	.216	.382	<b>NS</b>
<b>Within Groups</b>	6575.294	64	63.224			
<b>Total</b>	6584.897	67				

*Source: field work, 2015*

The table presents the difference in the responses of lecturers in electrical/electronics technology, building/woodwork technology and automobile/metal work on skill development needs in use of social medias for instructional activities. The table revealed a non-significant differences between the groups ( $df = 64$ ;  $F = .216$ ;  $p > 0.05$ ). Thus, hypothesis two was rejected. Hence, there is no significant difference in the responses of lecturers in electrical/electronics technology, building/woodwork technology and automobile/metal work on skill development needs in use of social medias for instructional activities.

**DISCUSSION OF FINDINGS**

The results obtained from statistical analysis on technology facilities available for technical education lecturer's use indicated with an average mean of 1.67 that new technologies that can help in instructional delivery and learning of the students are not adequately provided. This is in concordance with the view of Pernia (2008) who assert that ICT are technologies used to communicate in order to create, manage and distribute information, they are devices and applications used to access, manage, integrate, evaluate, create and communicate information and knowledge and should be provided for effectiveness of work delivery. Also, Shachaf (2008) asserted that advances in technology facilitate communication and the sharing of information among team members; it may also impact team effectiveness and are therefore required in the 21<sup>st</sup> century workplace.

The result obtained on lecturers familiarity with the top ten social medias indicated with an average mean of 1.71 that technical education lecturers are fairly familiar with some but are more familiar with Facebook. This is in line with the opinion of Boyd (2007) who discovered that these social media sites let those who use them create personal profiles, while connecting with other users of the sites and can upload photographs, post what they are doing at any given time, and send personal or public messages to whomever they choose which makes more people to use it.

The result obtained on skill development of technical education lecturers in the use of technology devices for instructional activities with an average mean of 3.22 indicated a highly needed skill development with a non-significant difference in the responses of lecturers from different fields of the programme on the skill development needs. Also, the result obtained on the skill development needs of technical education lecturers in the use of social network sites for instructional activities with an average mean of 3.32 indicated a highly needed skill development with a non-significant difference in the responses of lecturers from different fields of the programme on the skill development needs. This agrees with the findings of [Kitschner \(2003\)](#) who identified the following competencies required by lecturers in ICT application in education. These include: competence to make personal use of ICT, competence to master range of educational paradigms that make use of ICT, sufficient competence to make use of ICTs as mind tools, competence to make use of ICT as a tool for teaching, competence in mastering a range of assessment paradigms which make use of ICT, competency in understanding the policy dimensions of the use of ICT for teaching and learning. Also, Lowther (2008) identified three important characteristics needed to develop good quality teaching and learning with technology devices: autonomy, capability, and creativity.

## **CONCLUSION AND RECOMMENDATIONS**

The study identified that technology facilities which are required to facilitate effective instructional activities are not available in good proportion and that most social medias are not effectively explored by lecturers. It can be deduced that most lecturers are not competent in the use of most technology facilities as they are not available for use and are not vast in the use of most social media sites as they are not familiar with them. Thus, skill development is therefore needed in use of these technologies and social medias for effective instructional delivery in this 21<sup>st</sup> century classrooms which determines the quality of education acquirable in schools.

Based on the findings, it is therefore recommended that:

1. more technology facilities should be provided for carrying out instructional activities most especially in technical education programmes in Nigeria higher institutions.
2. skills development training programmes should be organized to train lecturers in the use of technology facilities and reigning social medias for instructional facilitation.
3. lecturers should take advantage of students' involvement in use of social medias to package their instruction in that direction.
4. classrooms and offices should be furnished with appropriate technology facilities for effective instructional activities.
5. provision of required software needed in carrying out various academic activities should be provided without delay to aid improved education delivery in the country.
6. lecturers should be trained on each new technology developed which can be used in facilitating teaching and learning.
7. skills development programmes should constantly be organized on use of latest technologies for academic activities.



## References

- Yusuf, M. O. (2004). *An investigation into teachers' self-efficiency in implementing computer education in Nigerian secondary schools*. Retrieved September 20, 2007, from [http://www4.ncsu.edu/unity/lockers/project/meridian/////sum2005/computer\\_nigeria\\_school/index.html](http://www4.ncsu.edu/unity/lockers/project/meridian/////sum2005/computer_nigeria_school/index.html)
- Winer, R. K. (2000). Rung by up the health career ladder. *American vocational journal*, 48(7): 18-27
- Odu, K. O. and Blose, C. A. (2003). Technical college education and the challenge of new millenuim. *Nigeria J. research and production*, 2(1): 63-69.
- Pernia, E. E. (2008). Strategy framework for promoting ICT literacy
- Abdel-Wahab, A. G., Omer, R. O. A. and Attalla, S. M. (2009). Factors affecting doctor's intention to adopt electronic medicine: A case from Egypt. *The Internet Journal of Medical Informatics*.
- Boyd, D. M. (2007). Affiliations of attitudes and experience with need for learning computer skills. *Journal of research on computing in education*, 35(2), 180-193.
- Kirschner, P. A. and Wopereis, I. G. J., (2003). Information and communication technology for teachers training: *Pedagogic benchmarks for teachers education*. Utrecht : Netherlands. inspectic van het onderwijs
- Pempek, T. A. (2008). A study of teacher perceptions of instructional technology integration in the classroom". *Delta Pi Epsilon Journal*, vol. 50, no. 2, pp. 63-76, 2008
- Lenhart, A., Purcell, L., Smith, A., and Zickuhr, K. (2010). Social media and young adults. *Pew internet and American life project*. Retrieved June 20, 2011, from <http://www.pewinternet.org/reports/2010/social-media-and-young-adults.aspx>
- Aduwa-Ogiegbaen, S. E., and Iyamu, E. O. S. (2009). Using information and communication technology in secondary schools in Nigeria: Problems and prospects. *Educational Technology & Society*, 8(1), 104-112.
- Tapscott, D. (1999). Educating the net generation. *Educational leadership*, 56(5), 7–19.
- Roberts, J. M. (1999). Integration of information and communication technologies (ICT) through teacher professional development: issues and trends in Canada. *Vancouver, British Columbia: Judith Roberts and Associates Inc.*
- Efaw, J. (2005). No teacher left behind: how to teach with technology. *Educause quarterly*, 4, 26–32.