Computer application skills possessed by Electrical/ Electronic Technology Teachers of Technical Colleges in Anambra State

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Abstract

The major purpose of the study was to determine the computer application skills possessed by Electrical/Electronic Technology teachers of Technical Colleges in Anambra State. The study adopted a survey design. The population for the study consisted of 80 teachers of Electrical/Electronic Technology at Technical Colleges in Anambra State. A questionnaire made up of 50 items was used for data collection. The instrument was validated by three experts, one expert from the department of technology and vocational education, one expert from Measurement and Evaluation, and one expert from Curriculum, all from Enugu State University of Science and Technology (ESUT) Enugu. The calculated reliability index was 0.88 using Cronbach alpha. Four research questions were answered using mean and standard deviation and three null hypotheses were tested at 0.05 level of significance using t- test. It was found that the electrical/electronic technology teachers in Anambra State Possessed all the networking skills, communication skills, computer operation skills and media skills but could not impart the knowledge to their students because of unavailability of computer and its accessories in Technical Colleges. It was concluded that computer and its accessories should be provided in Technical Colleges in Anambra State.

Keywords: Computer Application, Curriculum, Electrical/Electronics, Skills, Technology.

Introduction

Computer application plays a paramount role towards the development of any nation in the world. In the western world, the use of computer technology in educational system has grown tremendously. This is why the inclusion of Computer Education in the curriculum of teacher education in Nigeria will make a significant impart to national development. According to Umendu

(2004), it has been experimentally confirmed that the use of computer to complement the effort of teachers has brought about improved performance on the part of the learner. Computers have become parts of the work force in developed countries and they have embraced computer technology for development. Some organizations in Nigeria have embraced the use of computer, the banking sector and the oil sector for example, the educational sector should not be left out.

The world is fast becoming a global village because of interconnectivity that exists between countries, organizations, schools, governments and other bodies as a result of computer application (World Bank, 2002). Rao (1990) defines computer as any electronic machine that can accept data as input, process and bring out the result as output. Computer studies have been introduced in the Nigeria Educational system at Secondary Schools Level since 1988 by the former Minister of Education, Professor Jubril Aminu. Since then, computer studies have been growing stronger and stronger leading to the development of curriculum of computer studies in primary schools and in tertiary level. It is a course of study and as a machine for conducting data analysis and carrying out research work. Today, computers are not only used in schools for teaching and learning purposes, they are also used for doing different things like graphic designs, typesetting of documents, receiving and sending electronic mail through an international network (Internet). Computer application is the use of computer program designed to help people perform certain types of works. For educational users, all that is required for the use of computer is to buy necessary educational software already made to teach electrical/electronics, physics, chemistry, mathematics, electricity, woodwork and English language. Most of these educational programs contain data files with list of questions and answer on the subject being taught. There are many computer application skills which the Electrical/Electronics Technology educator must possess. These include the networking, communication, computer operation and media skills. One of the most spectacular manifestations of interconnectivity in the world is the internet, which is the network of computers.

Futhermore, Eyitayo (2002), described internet as the global information pool as it links hundreds of nations, thousands of companies and millions of computers. In many parts of the world, the internet is an important tool for business, education, research, commerce, communication and technological development. This is because it allows worldwide community to communicate over any distance to access any information from anywhere in the world, thereby turning the world into a global village. One of the objectives of computer technology, according to the Nigeria National Policy on Computer Technology (NNPCT) (2001), is to promote the acquisition and development of transferable skills. In Nigeria, most of the companies, organizations and schools have their websites from which one can access information about them and this is as a result of computer technology.

Furthermore, Oboegbulem (2005) noted that since schools thrive on information, teachers can acquire better skills, when there is improved teaching and learning through the use of computer. It can be seen that the use of computer transforms the way teaching and learning take place. Computer application is very important in Technical Colleges, because it will actively encourage students to learn and acquire experience in preparation for future career. It will also enable the

students and teachers to possess the unique skills for challenges of modern era in Technical education.

Technical education involves the acquisition of skills and knowledge by an individual in specific occupation for employment. In developed countries, it is used to assist individuals to develop skills in various fields. The National Policy on Education (2004) stated that Technical education is that aspect of education which leads to acquisition of skills as well as basic scientific knowledge. In a nutshell, Technical education is a form of vocational education designed to prepare the learner to enter an occupation requiring Technical information and understanding of the laws of Science and Technology as applied (Aghenta, 1985). Technical education stresses the engineering aspect of vocational education such as electrical, electronics, mechanical and building trades. Aghenta also pointed out that Technical education involves the understanding and practical application of the basic principles of mathematics and science. He also pointed out that the central purpose of Technical education is to prepare persons or individuals especially students for employment in the occupation or career in their chosen field. Computer education encompasses the teaching of computer as part of the curriculum implementation (Rao, 1990). He also stressed that computer education involves the use of computer software in teaching and learning, in conducting data analysis and carrying out research work. Computer education today has been developed to provide interactive techniques, communicative and manipulative skills on which effective Technical education is based. Without computer literacy, functional Technical education can hardly be imparted to the youths. Scardamedia (1989) stated that the use of computer in skill acquisition in Electrical/Electronic fosters best practices in Technical education. He also noted that computer education fosters excellence and improved students' achievement through the promotion of lifelong learning skills and competencies. It therefore, follows that for an Electrical/Electronic educator in a Technical college to effectively perform his roles, he should possess adequate computer application skills for effective teaching. Such skills include networking, communication, computer operation and media skills.

Moreover, Electrical/Electronic Technology teacher possess networking skill should be able to teach the students how to use file saver, connect log on, retrieve a program or document, save a document and share files with others. The communication skills involve the ability to use the ability to use language in a proper way. It is these set of skills that enables the teacher to convey information so that it is received and understood by the students. More so, Electrical/Electronic Technology educator (which could be male and female in terms of gender and sex) must possess the basic computer operations skills and media skills to enable him impart the skills to the students. On this note, gender and sex are two words that are often used interchangeably as if they mean exactly the same. Sex, according to Oxford Advanced Learners Dictionary (2001) is either of two main categories (Male and Female) into which humans and most other living things are divided on the basis of their reproductive functions. Sex refers to biologically characteristics determined at conception, which is fixed for person's life and exists in all countries of the world without change whereas gender is a cultural construct that distinguishes the roles, behaviour, mental and emotional characteristics between females and males developed by a society (Keller, 2002).

However, all the subjects that make up Electrical/Electronic such as electrical installation, radio and television services, instrumentation, air condition services etc. in the Technical Colleges can be taught with computer. Since males and females are involved in teaching electrical/electronic subjects, so computer application skills must be acquired by the teachers. This will enable them impart the knowledge or acquired skills to the students.

Computer is a desirable instructional medium which gives the learner the opportunity to learn at his pace. It contains a lot of information and exposes students to lots of instruction that help them in learning and lighten the burden of the teacher as an instructor. It is observed by the researcher that the students from government Technical Colleges in Anambra State do not have good knowledge of Computer Skills. This created a gap in technological development of the State and the nation at large. It also created the gap of students not utilizing the use of Computer technology in learning Electrical/Electronic subjects. Despite all these, it is amazing that Electrical/Electronic Technology teachers may not possess the necessary computer skills required of them. In addition, some Electrical/Electronic Technology teachers may not know how to operate computer. Does it mean there are some factors militating against the use of computer in teaching Electrical/Electronics? Based on the above revelations, the need arose to determine computer application skills possessed by the Electrical/Electronic Technology teacher in government Technical Colleges in Anambra State.

One of the objectives of computer technology as stated in the Nigerian National Policy on Computer Technology (2001) is to promote the acquisition and development of transferable skills. This will help to actively encourage students to gain work experience in reparation for career. The computer motivates the learner and helps him advance in a course of study with little or no assistance from the teacher. Electrical/Electronics is a Technical subject that aims at knowledge and skill acquisition which when taught with computer will make for effective practical teaching and learning. The researcher observed that the students cannot go to the cybercafé to source for information and also they cannot operate computer. This is because they have not been taught how to use it, coupled with the problem of unavailability of computer and its accessories.

It is not certain that students in Technical Colleges and the ones graduated are able to use computer effectively. It is not obvious that the teachers possess the skills to impart them to the students. Does it mean that these teachers do not possess the computer application skills or are there inhibiting factors to the use of computer in teaching by teachers that are yet to be ascertained?

The researcher is worried that is if the Electrical/Electronic Technology teachers in Anambra state do not possess the computer skills, they will not be able to impart the knowledge to their students. Thus, the students will lack computer skills and it will affect the technological development in the state and the country. The problem of the study therefore is what are the computer application skills possessed by teachers of Electrical/Electronic Technology in government Technical Colleges in Anambra state.

The general purpose of the study is to determine the computer application skills possessed by the teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State. Specifically, the study intended to:

- 1. Determine the networking skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra state.
- 2. Determine the communication skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra state.
- 3. Find out the computer operations skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra state.
- 4. Determine the media skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State.

Research Questions

The following research questions guided the study: -

- 1. What are the networking skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State?
- 2. What are the communication skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State?
- 3. What are the computer operation skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State?
- 4. What are the media skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra state?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance.

HO_I: There is no significance difference between the mean responses of male and female teachers on the networking skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State.

HO₂: There is no significant difference between the mean response of male and female teachers on the communication skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State.

HO₃: There is no significant difference between the mean response of male and female teachers on the computer operations skills, possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State.

Methodology

The researcher adopted a survey design. Survey is a design in which the results of data analyzed on samples of population are generalized over the entire population. Nworgu (1991) stated that the design of a study can be classified as survey if it involves the study of samples drawn from chosen population which are considered to be representative of the entire population. The reason for using a survey research design, is that questionnaire was distributed to find out the responses

of teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State on the computer application skills possessed by them. The area of the study was six educational zones in Anambra State, Awka Zone, Aguata Zone, Ogidi Zone, Nnewi Zone, Onitsha Zone and Otuocha Zone. There are 10 Technical Colleges in these 6 Zones (PPSMB) 2009.

The population for the study consisted of 80 teachers of Electrical/Electronic Technology in 10 Government Technical Colleges in Anambra State, made up of 50 male teachers and 30 female teachers. (Department of planning, research and statistics PPSMB Awka, 2009) See appendix C for the distribution. Due to the manageable size of the population, all the 80 teachers of Electrical/Electronic Technology were used. There was no sampling. The instrument that was used for data collection was a structured questionnaire. The questionnaire was developed by the researcher for teachers of Electrical/Electronic Technology in Anambra State. The questionnaire consists of five Sections (A-E); Section A is designed to elicit information on the background of the respondent that is the personal data of the respondent. Section B-E is designed to elicit information on the skills possessed by the Government Technical Colleges. Sections B to E consist of 8, 12, 20 and 10 items respectively. The 4-point scale of Very High Extent, High Extent, Low Extent and Very Low Extent was used. The instrument was validated by three experts, one from the Department of Technology and Vocational Education (TVE), one from Measurement and Evaluation and one from Curriculum, all from Enugu State University of Science and Technology (ESUT) Enugu. They validated the instrument to ensure that it is in accordance with the purpose of the study. Their corrections and comments helped to produce the final instrument. (See appendix L for Validators' Comment). The instrument was trial-tested to determine the reliability using 20 teachers in Government Technical College Enugu. Enugu State is chosen because, it is nearer to Anambra State and they share same ideology and administrative pattern in Technical Colleges. They also have the same educational policy.

Responses obtained from the administered instrument were correlated and Cronbach alpha was used to determine the reliability index. The calculated reliability index was 0.88 denoted that the instrument is reliable (see Appendix D). The reason for using cronbach alpha is that, it is applied for poly-chotomous items. It is administered once and it measures the internal consistency of the instrument item by item and questions by questions. The researcher administered the questionnaire with the help of trained research assistants (one teacher of Electrical/Electronic Technology in each of the Government Technical Colleges in Anambra State). The respondents completed the questionnaire and returned them to the research assistants. All the 80 copies of the questionnaire were administered and all of them were returned. The percentage of the return rate was 100%. The researcher collected the completed copies of the questionnaire from the research assistants in each Technical College. Data collected were presented in tables. It was analyzed using mean statistics and standard deviation. Nominal values were assigned to scaling items as follows: Very High Extent (VHE) 3.50 - 4.49 High Extent (LE) 1.50 - 2.49

Very Low Extent (VLE) 0.50 - 1.49

In presenting the data, tables are presented in accordance with the four research questions and three hypotheses formulated for the study. For clarity in table 1-4, this key applies VHE - Very High Extent, HE - High Extent, LE - Low Extent and VLE - Very Low Extent.

Research Question One

What are the networking skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State?

Table 1: Mean Ratings of Respondents on the Networking skills Possessed by teachers	s of
Electrical/Electronic Technology in Technical Colleges in Anambra State.	

Items	Questionnaire items	$\overline{\mathbf{v}}$	SD	Decision
		X		
1.	The use of file server.	3.67	0.47	VHE
2	Knowledge of area networking including local area network	3.61	0.49	VHE
	and wide area network			
3	Ability to connect to internet.	3.57	0.57	VHE
4	Ability to use electronic mail	3.52	0.60	VHE
5	Knowledge of telecommunication terms such as direct access,			
	internet, world wide web etc.	3.65	0.49	VHE
6	Install and configure telecommunication software.	3.65	0.49	VHE
7	Knowledge of use of group address for e-mail.	3.66	0.55	VHE
8	Knowledge of use of on-line conference relevant to			
	professional information needs.	3.58	0.64	VHE
	Grand Mean	3.58	0.17	VHE

The responses presented in Table 1 revealed that the teachers of Electrical/Electronic Technology possessed all the networking skills listed in table 1 to Very High Extent. All the items have their mean ratings of not less than 2.50 and standard deviation. The mean could be considered high as they range from 3.52 (ability to use electronic mail) to 3.67 (the use of server). This signifies that teacher of Electrical/Electronic Technology possessed all the networking skills listed in Table 1 for effective teaching in Technical Colleges in Anambra State.

The standard deviation of the items ranges from 0.47 to 0.64 which implies that the respondents were not too far apart from their opinions but were very close in their perceptions. The grand mean for teachers of Electrical/Electronic Technology is 3.58 and the overall standard deviation is 0.17.

Research Question Two

What are the communication skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State?

Table 2: Mean Ratings of Respondents on the Communication Skills Possessed by teach	hers
of Electrical/Electronic Technology in Technical Colleges in Anambra State.	

Items	Questionnaire items	\overline{X}	SD	Decision
9	Demonstrate knowledge of good grammar.	3.56	0.51	VHE
10	Punctuate correctly.	3.46	0.52	HE

11	Capitalize correctly.	3.49	0.53	HE
12	Proofread correctly	3.51	0.49	VHE
13	Demonstrate good oral communication.	3.62	0.46	VHE
14	Lead by example.	3.59	0.56	VHE
15	Build a report.	3.52	0.54	VHE
16	Work with difficult people.	3.30	0.64	HE
17	Repeat key messages	3.42	0.51	HE
18	Use simple correct sentence.	3.43	0.52	HE
19	List and be listened to.	3.42	0.62	HE
20	Use many different forums to speed the work	3.33	0.61	HE
	Grand mean	3.47	0.12	HE

The responses presented in Table 2 revealed that teachers of Electrical/Electronic Technology possessed all the communication skills listed in table 2. All the items have their mean rating of not less than 2.50 and standard deviation. The means could be considered high as they range from 3.42 (list and be listen to) to 3.62 (Demonstrate good oral communication). This signifies that teacher of Electrical/Electronic Technology possessed all the communication skills listed in table 2 for effective teaching in Technical Colleges in Anambra State.

The standard deviation of the items ranged from 0.46 to 0.62 which implies that the respondents were not too far apart from their opinion but was very close in their perceptions. The grand mean for teachers of Electrical/Electronic Technology is 3.47 and the overall standard deviation is 0.12.

Research Question Three

What are the computer operation skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State?

Table 3: Mean Ratings of Respondents on the Computer Open	ation	Skills F	Possessed k	Эy
Electrical/electronic Technology Teachers in Technical Colleg	es in A	Anambi	ra State.	

Items	Questionnaire items		SD	Decision
		X		
21	Create a document.	3.43	0.56	HE
22	Create sub-directories.	3.44	0.56	HE
23	Save a document.	3.41	0.71	HE
24	Retrieve a document.	3.46	0.58	HE
25	Edit document.	3.40	0.57	HE
26	Print a document.	3.47	0.60	HE
27	Install software.	3.40	0.62	HE
28	Update software	3.26	0.82	HE
29	Exchange disk.	3.54	0.51	VHE
30	Exchange file	3.62	0.97	VHE

31	Format a document.	3.54	0.51	VHE
32	View a document in the computer.	3.47	0.52	HE
33	Knowledge of magnetic ink character recognition (MICR)	3.28	0.64	HE
34	Scan a text/drawing into computer.	3.44	0.61	HE
35	Delete a document.	3.41	0.56	HE
36	Use computer to print.	3.45	0.56	HE
37	Copy a document	3.42	0.54	HE
38	Squeeze or stretch a document.	3.22	0.74	HE
39	Page text	3.28	0.63	HE
40	Work with electrical/electronic software.	3.19	0.66	HE
	Grand Mean	3.41	0.15	HE

The responses presented in Table 3 revealed that teachers of Electrical/Electronic Technology possessed all the computer operation skills listed in Table 3. All the items have their mean rating of not less than 2.50 and standard deviation. The mean could be considered high as they range from 3.19 (Work with Electrical/Electronic software) to 3.62 (Exchange file). This signifies that teacher of Electrical/Electronic Technology possessed all the computer operation skills listed in Table 3 for effective teaching in Technical Colleges in Anambra State.

The standard deviation of the items ranges from 0.51 to 0.97 which implies that the respondents were not too far apart from their opinion but were very close in their perceptions. The grand mean for teachers of Electrical/Electronic Technology is 3.41 and overall standard deviation is 0.15.

Research Question Four

What are the media skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State?

Items	Ouestionnaire items		SD	Decision
	C	X	~-	
41	Produce print based products such as newsletters,			
	brochures, posters etc.	3.35	0.54	HE
42	Produce electronic slides and overheads for electric			
	teaching.	3.14	0.60	HE
43	Use painting and drawing tools to produce images.	3.05	0.65	HE
44	Use digital camera and scanner.	2.85	0.63	HE
45	Edit a video text.	2.87	0.66	HE
46	Produce a video	2.73	0.80	HE
47	Knowledge of characteristic of different media,			
	strengths and weakness of different media.	2.76	0.70	HE
48	Identify media communication resources.	2.71	0.70	HE
49	Make use of the Video Tape Reader (VTR)	2.67	0.73	HE
50	Make use of closed circuit, TV, Via microwave, cable			
	satellite tv.	2.71	0.77	HE
	Grand Mean	2.88	0.26	HE

 Table 4: Mean Ratings of Respondents on the Media Skills Possessed by

 Electrical/Electronic Technology Teachers in Technical Colleges in Anambra State.

The responses presented in Table 4 reveal that teachers of Electrical/Electronic Technology possessed the media skills listed in Table 4 to a high extent. All the items have their mean ratings of not less than 2.50. The means could be considered high as they range from 2.67 (Make use of the Video Tape Reader.) to 3.35 (Produce print-based products such as newsletters, brochures, posters etc). This signifies that teacher of Electrical/Electronic Technology possessed most of the media skills listed in Table 4 for effective teaching in Technical Colleges in Anambra State.

The standard deviation of the items ranged from 0.54 to 0.80. This implies that the respondents were not too far apart from their perceptions. The grand mean for teachers of Electrical/Electronic Technology is 2.88 the overall standard deviation is 0.26.

Hypothesis 1

Ho₁: There is no significant difference between the mean responses of male and female teachers on the networking skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State.

 Table 5: The T-Test Analysis of Mean Responses of Male and Female Teachers on the

 Networking Skills Possessed by teachers of Electrical/Electronic Technology

Gender	X	SD	N	DF	Standard Error	t-cal	t-table	Decision	
Male	3.49	0.20	50	70	0.12	1 417	1.09	NS	
Female	3.66	0.13	30	/0	0.12	1.41/	1.90	113	

The t-test analysis of data in Table 5 reveals that all the 8 items in the networking skills possessed by teachers of Electrical/Electronic Technology had their t-cal lower than the t-table of 1.98 at 0.05 level of significance and 78 degrees of freedom. This indicated that for the 8 questionnaire items, there was no significant difference in the mean responses of the two groups of the respondents i.e., male and female in the networking skills possessed by teachers of Electrical/Electronic Technology. With the above result, the null hypothesis of no significance different between the two group of respondents was upheld for the eight items.

Hypothesis 2

There is no significant difference between the mean responses of male and female teachers on the communication skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State.

Table 6: The T-Test Analysis of Mean Responses of Male and Female Teacher	on o	the
Communication Skills Possessed by teachers of Electrical/Electronic Technology		

Gender	X	SD	Ν	DF	Standard Error	t-cal	t-table	Decision
Male	3.37	0.10	50	78	0.23	1.15	1.98	NS
Female	3.57	0.14	30					

The t-test analysis of data in Table 6 reveals that all the 12 items in communication skills possessed by teachers of Electrical/Electronic Technology had their t-cal lower than the t-table of 1.98 at 0.05 level of significance and 78 degrees of freedom. This indicate that for the 12

questionnaire items, there was no significant difference in the mean responses of the two groups of the respondents i.e., male and female in the communication skills possessed by teachers of Electrical/Electronic Technology. With the above result, the Null hypothesis of no significance different between the two group of respondents was upheld for the twelve items.

Hypothesis 3:

There is no significant difference between the mean responses of male and female teachers on the computer operation skills possessed by teachers of Electrical/Electronic Technology in Technical Colleges in Anambra State

Table 7: T	The T -Te	st Analy	sis of N	/lean Ro	esponses of M	Iale and F	emale Teacl	ners on Compu	uter		
Operation Skills Possessed by teachers of Electrical/Electronic Technology.											
Gender	X	SD	Ν	DF	Standard	t-cal	t-table	Decision			

Gender	X	SD	Ν	DF	Standard Error	t-cal	t-table	Decision	
Male	3.36	0.17	50	78	0.31	0.32	1.98	NS	
Female	3.66	0.13	30						

Table 7 reveals that all the 20 items in the 20 items in the computer operation skills possessed by teachers of Electrical/Electronic Technology had their t-cal lower than the t-table of 1.98 at 0.05 level of significance and 7.8 degree of freedom.

This indicates that for the 20 questionnaire items, there was no significant difference between the mean response of male and female in the computer operation skills possessed by teachers of Electrical/Electronic Technology for effective teaching of Electrical/Electronic subjects in government Technical Colleges in Anambra State.

The result showed that null hypothesis of no significant difference between the two groups of respondents in the computer operation skills possessed by teachers of Electrical/Electronic Technology for effective teaching of Electrical/Electronic was upheld for all the 20 items.

Discussion of Findings

The data presented in table one provided answers to the research question one which by its illustrative analysis, showed that the teachers of Electrical/Electronic Technology possessed all the networking skills. The female teachers possessed the ability to install and configure telecommunication software to a very high extent. The male teachers to a very high extent possessed the ability to use electronic mail. This is in line with the findings of a study by Chukwumezie (2005). The study found that senior secondary school business education graduates required some of these skills. If the result of this study revealed that senior secondary business education graduates require some of these skills, then it is necessary that the teachers should possess them because teachers acquire certain skills in order to impart the skills to the students.

The result of this study, in the second research question, revealed that the teachers of Electrical/Electronic Technology possessed all the communication skills. The finding agrees with the study carried by Okeke and Obi (2001) which revealed that the Electrical/Electronic workers in Benue State requires all the communication skills such as the abilities to demonstrate good

grammar, punctuate correctly, proofread documents correctly and demonstrate good oral communication.

Njumogu and Njumogu (2001) stated that effective and efficient communication is very essential in any organization. There is need for transmission of information between the teachers and students. These results are not surprising because teachers through their educational qualification have come to realize that effective and efficient communication during lesson arouse the students interest during teaching and also gives room for proper classroom management. A teacher who showed the ability to demonstrate knowledge of good grammar commends respect from the students.

The result of research question three in table 3 revealed that teachers of Electrical/Electronic Technology to a high extent possessed all the computer operation skills. The highest computer operation skills possessed by the teachers of Electrical/Electronic Technology are as follows: copy a document, print a document, exchange file, format a document, save a document and retrieve a document. This showed that teachers of Electrical/Electronic Technology in Anambra State were prepared to encounter the challenges of computer technology. This result is not surprising based on the situations on ground today. It has become essential for everyone to be relevant in the globalization process through the exploration and exploitation of the computer technology sub-sectors.

This result is in line with the work of Ndu (2004) who found that competency of business education graduates in today's business office, is largely measured by their level of computer literacy. This may have influenced most business education graduates to aspire to acquire such basic knowledge and skills especially those of them that use teaching as a stepping stone for better employment.

However, the result of my study revealed that the teachers of Electrical/Electronic Technology possessed the computer operations skills to a high extent. The answer to the fourth research question shows that teachers of Electrical/Electronic Technology possessed most of the media skills.

This result agreed with the work of Chukwumezie (2005) who found that senior secondary business graduates in Owerri Imo State required the following media skills, abilities to produce print-based products, producing electronic slides, use of digital camera and scanner, produce and edit video, knowledge of characteristics of different media and identify media communication resources. The result of the present study revealed that teachers of Electrical/Electronic Technology possessed the media skills to a high extent.

Furthermore, t-test of significance was also used to test the first hypothesis. At 0.05 percent level of significance and degree of freedom (df) of 78; the t-cal of all the networking skills possessed by teachers of Electrical/Electronic Technology had their t-cal lower than the t-table of 1.980.

On this basis, the researcher has no evidence to reject the null hypothesis. This finding implies that the networking skills possessed by teachers of Electrical/Electronic Technology

(male) are also possessed by female teachers of Electrical/Electronic Technology in Government Technical Colleges.

The t-test of significance was also adopted to test for the second hypothesis. Finding revealed that at 0.05 level of significance and at 78df, the t-cal for all the communications skills had their t-cal lower than the t-table.

This finding shows that the opinion of the male teachers of Electrical/Electronic Technology in the communication skills possessed by them do not differ significantly from female teachers of Electrical/Electronic Technology in Government Technical Colleges. This could be as a result of general awareness of the emergence of computer.

The t-test of significance was also used to test the third hypothesis. Finding reveals that at 0.05 level of significance and at 78df, the t-cal for all the computer operations skills had their t-cal lower than the t-table.

On this basis, the researcher has no evidence to reject the null hypothesis. This finding implies that the computer operation skills possessed by teachers of Electrical/Electronic Technology (male) are also possessed by female teachers of Electrical/Electronic Technology in Government Technical Colleges. This could be as a result of general awareness of the emergence of computers.

Implications of the Study

The findings of this study have a far-reaching implications for teachers of Electrical/Electronic Technology and also the curriculum planners in Government Technical Colleges. Teaching and learning particularly in the area of computer technology would be enhanced if computer equipment are provided for Government Technical Colleges in Anambra State. The finding of this study also has a positive implication to the curriculum planners of electrical/electronic technology subjects in Government Technical Colleges. They will know exactly the skills that should be included in the Technical Colleges programmes.

Conclusions

Based on the findings of this study, the following conclusions were drawn: that the male and female teachers of Electrical/Electronic Technology in Government Technical Colleges possessed all the networking skills, communication skills, computer operation skills, and media skills. It can now be concluded that teachers of Electrical/Electronic Technology in Government Technical Colleges in Anambra State possessed all the skills but they cannot effectively impart these skills to the students because of some problems. Such problems among others include absence of computer in Technical Colleges in Anambra state, absence of syllabus and textbooks.

Recommendations

Based on the findings made and conclusions drawn from the study, the following recommendations were made:

- 1. The national curriculum for Government Technical Colleges should make computer technology an integral part of the curriculum.
- 2. Government should help by providing fund for equipment or purchase the equipment needed for the training and teaching of the students especially on computer technology.
- 3. Government should also organize seminars and workshops on computer technology for teachers of Electrical/Electronic Technology.
- 4. Textbooks and workbooks on computer technology should be made available for teachers of Electrical/Electronic Technology.
- 5. Internet service facilities should be provided in Government Technical College

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