

## **SKILLS NEEDED BY COMPUTER EDUCATION GRADUATES FOR SUSTAINABLE EMPLOYMENT IN ENUGU STATE: AN IMPLICATION FOR COUNSELLING.**

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*Skills, Computer Education, Graduate, Sustainable Employment, and Counselling.*

**Abstract:** *The main purpose of the study was to ascertain the skills needed by Computer Education graduates for sustainable employment in Enugu State. Five research questions were formulated and guided the study, while five hypotheses were tested. Survey research design was used for the study. The population for the study was 100 which comprised 20 lecturers and 80 final year students in Department of Computer Education in the Federal and State universities in Enugu State. No sampling was made. A 50-item Questionnaire was used as the instrument for data collection. The instrument was face-validated by two experts in Science and Computer Education and an expert in Measurement and Evaluation, in the Department of Science and Computer Education, Enugu State University of Science and Technology (ESUT). The reliability of the instrument was ascertained using Cronbach Alpha and an overall reliability index of 0.97 was obtained. The researcher administered the instrument by hand. The research questions were answered with mean and standard deviation while the hypotheses were tested with t-test at 0.05 level of significance. The Statistical Package for Social Sciences (SPSS) was used for all the analyses. The results of the analyses revealed among others, that all the items under modern communication skills, database management skills, adaptability skills, internet skills and creative skills were highly required by computer education graduates for sustainable employment in Enugu State. The null hypotheses tested showed no significant difference in the mean ratings of lecturers and students of computer education in the entire variable. Based on the findings, some implications were deducted and it was recommended among others, that the identified skills for sustainable employment should be integrated into the curriculum planners, lecturers should adopt the identified skills in teaching the students for easy transition and acquisition of the skills amongst the students and government and school administrator should promote the teaching of the identified skills to the students.*

## **Introduction**

The increase in global market competition has given rise to the need to produce graduates that could meet the need of business organizations. In today's labour market, employers of labour attach much importance to graduate employability skills which show work readiness of the graduate, possession of the skills, knowledge, attitudes and commercial understanding. This will enable graduate to make productive contributions to organizational objectives soon after commencing employment. The Nigerian educational system over the years laid emphasis on production of school leavers with employable skills. Among the objectives of the National Policy on Education, (Federal Republic of Nigeria, 2013) as contained in section 7(d) (philosophy and goals of education in Nigeria), is the acquisition of appropriate skills, abilities and competencies both mental and physical, as equipment for the individual to line in and contribute to the development of the society. For this, to be obtainable one must acquire basic and appropriate skills.

Skill is the ability to perform a task to a predetermined level of competence. Oluoyomi and Adedeji (2012) defined skills as; ability to perform a task to a predefined level of competence. They identified two categories of skills; transferable or generic skills which can be used across large numbers of different occupations, and vocational skills which are specific occupational or technical skills needed to work within an occupation or occupational group. They identified analytical, critical thinking, communication, entrepreneurial, decision making, interpersonal, problem solving, self-directed and numeracy skills as generic. On the other hand, vocational skills depend on the occupation or vocation concerned. There are so many opportunities for lecturers to learn and acquire new skills over the internet, keep up with credentials and in turn help them improve their teaching abilities in computer education.

Computer education can be looked at, as a process of educating the people on how to use a computer to run programs of diverse application including business, industry and commerce (Okorie, 2001) in Odoh (2015). Computer education is a system of skills acquisition in the use of computer to solve problems (Skinner, 1980) in Odoh (2015). Here computer is seen as a subject organized to enable people to understand the functions, uses and limitations of computer and to provide an opportunity for the study of modern methods of information processing. It is an academic subject because it encourages an understanding of the studies implications. Computer education is one of the programmes offered in tertiary institutions in Nigeria, to train students in skills to be self-reliant. Computer Education graduates need skills to make them competent in the world of sustainable employment as well as increase productivity. To be occupationally competent in the labour market, graduates must acquire proficiency in some basic skills for sustainable employment.

Sustainable employment is a way of building resilience to cope with future shocks and enable future transitions and advancement at work. An employee's level of job sustenance shows how relevant the person has been on the job. The ability to sustain an employment depends on the currency and quality of the competency skills set possessed by the employee. Sustainable employment depends on an employee's ability to meet the hard, business and soft competences of the employer. Sustainable employment addresses incompetency and low skills, facilitates career transitions, achievement of inclusive growth, and helps overcome poverty and unemployment to be sustained for an indefinite period of time. It is a focal point to correlate the office with sustainable employment.

In early sixties, competition for employment was not as stiff as is today. Young graduates in most fields did not face this type

of competition. This is because the demand for labour was higher than the supply. Consequently, companies visited universities with great offers for graduates willing to take up appointment in their companies. However, with increasing population of school leavers specifically graduates of higher institutions without corresponding increase in job opportunities, the reverse became the situation. Supply of labour both skilled and unskilled is now more than the demand. A lot of factors came into play under the new situation.

Employers are no longer willing to pay high wages, hiring and firing, less worker motivation etc. became the order of the day in most organizations. Oluseyi and Elegbede (2012) pointed out that most private and public institutions tend to see the NYSC as a means of securing cheap labour that they utilize the services of corps members each year but tend not to absorb a substantial number at the end of the service year.

The problem of education in Nigeria include among others, the lack of qualified personnel, poor and or inadequate infrastructure, inappropriate school curriculum for skills development and poor personnel motivation. These negatively affect the quality of learning outcomes and thus job prospects of graduates. One thing that baffles many authorities especially researchers in education, is that education is yet to realize its objective of equipping graduates with needed skills for gainful employment or sustainable employment. The apparent population of idle graduates tend to substantiate this assertion. It has been suggested that the quality of education that is received in schools is unable to equip students with the skills needed for sustainable employment (Addae-Mensah, 2000).

The National Directorate of Employment (NDE) Act No 24 of 1989 was established to tackle unemployment in Nigeria. Among other objectives are to: design and

implement programmes to combat mass unemployment, and to articulate policies aimed at developing work programmes with labour intensive potentials. The first two objectives thus, point out two major issues: existence of mass unemployment and need to develop skills with labour intensive potential. It thus implies that lack of the latter caused the former. In other words, mass unemployment is caused by skills without labour intensive potentials (needed skills). As a result NDE has planned, designed and developed employment programmes in the area of skills acquisition, training for rural development and labour based work programmes. It is imperative to mention that it has continued to define the learning path in employment promotion and has evolved a sustainable employment promotion strategy, which salient features include training, counseling and collaboration with relevant Nigerians.

Invariably, the modern office is already here, as technology is increasingly being introduced into many offices in Nigeria, thus introducing changes in the office operations. Technology is a total and cannot do anything without human for information to be timely, accurate, complete, available and usable in the desired format; greater attention should be focused on the people component of the system. The ability to convert business information into sound judgment distinctively requires human efforts. People, technology, procedures and space are component of a system which are inter related, interacting, and interdependent. The introduction of automated applications in modern offices has created new jobs. Trained manpower is needed since the adequate use of advanced technology is highly dependent on the general education and culture of labour, there is growing connection between the intellectual skills of the people and the development potential of a country. Through technological advancement, the distance over which humans can communicate has become greater. Modern

technology society is constantly expanding intellectual and economic capabilities for achievement of more satisfactory results. Brown, Halsey, Lauder and Wells (1997), noted that employers now emphasize the need for employees who have personal social skills, together with any technical know-how which may be required. Among the core workers, there is an expectation that they will be able to work in a rapidly changing environment, engaging in “rule making” rather than rule following behavior, work in project teams and share the same personal chemistry as others in the organization (Akinson, 1985). In an office, to acquire skills there must be some form of training. This is because modern office requires a higher degree of ability and operating skills. The emphasis on skills acquisition is due to the high rate of unemployment among graduates, high rate of crimes due to untrained youths in modern society and challenging economy. Skill development can be accomplished through work experience or through education in school, workshop or laboratories. The major objective of skills is to have a successful life in which sustainable employment has a major role to play.

Okoye and Pollard (1998) noted that employability is about work and the performance ability to be employed. It also refers to a person’s performance capability of securing and maintaining an employment. In Computer Education, employment depends not only on whether one is able to fulfill the paper requirements of specific goals. It also connotes how one practically stands relative to others within a group of job seekers. Gore (2005) noted that graduates employability depends on their performance assets in terms of the knowledge, skills and attitudes they possess, the way they can use and deploy those assets, the way they present them to employers and the context (e.g. personal circumstances and the labour market environment within which they seek for employment). Furrier and Sels (2003) also noted that employability is

perceived at individual levels as continuously fulfilling, acquiring or creating of employment through the optimal use of performance competences or basic skills.

Skills or employability skills are those general skills and knowledge needed by person to be effective in obtaining, retaining and progressing in sustainable employment. Employability skills enable an individual to acquire and keep a job. Employers of labour are forced with too many job applications for very few jobs. Therefore, apart from good educational qualifications, employers need creative, flexible and visionary workers who possess a broad range of interpersonal and management skills (Nyanabo and AhuKannah, 2008). Samson (1984) viewed employability skills as those skills needed by an individual to get a job and progress on the job such as verbal communication, willingness and ability to work with others, how to prepare resume, how to complete an application form, how to conduct interview, willingness to follow directions, initiative and ability to learn new tasks. The job for which employers are hiring workers in this modern world requires workers to have a wider range of skills than ever before. Business Dictionary (2013) defined employability skill as a group of essential abilities that involve the development of a knowledge base, expertise and mindset that is increasingly necessary for success in the modern workplace. Department of Education, Science and Training in Australia (DEST 2002) also defined employability skills as skills required not only to gain a sustainable employment, but also to progress within an enterprise so as to achieve one’s potential and contribute successfully to enterprise directions. Skills of prospective Computer Education graduates can be viewed as an important dimension, reflecting the degree to which an individual will be successful in the chosen career.

Odufuwa (1994) stated that since no nation can boast of better development without the aid of computer skills in her educational

programme, calculated effort should be made for citizens to achieve technological breakthrough through skill acquisition. Accordingly, skill is demonstrated practically and can be obtained through training and education. The modern society has discovered that it needs to accord strong priority to the skills possessed by their employees during recruitment. Brown et al (1997) further stressed the fact that academic qualification now tell employers less about what they need to know about applicants given that they convey information about the individual ability and motivation to perform well in appropriate test and examination loops rather than students' potentials to work in teams or about their social and personal skills. According to Cima (1988), skill is the ability to apply theoretical knowledge, concepts and techniques to the solution of problems. The techniques to be used and the information required should be clearly indicated always. Skills can also be defined as a learned ability to bring about the result one wants with maximum certainty and efficiency. A graduate employee's task is to exhibit a standard that will ensure effective and efficient performance of duties as contained in the job analysis. Importantly, it is pertinent to identify jobs to be handled by graduates and also determine the relevant skills for sustainable employment. The various skills that employers now demand for, in addition to academic skills are; database management skills, adaptability skills, internet skills, and creative skills.

Niznik (2004) and Abuokuren (2010) agreed that database management skills is one of the important skills students require to gain employment in contemporary business organization. Without database management system, organizing, controlling and cataloging data, an information system would be an organized conglomeration of data. The ultimate role of a database management system is to implement controls and provide maintenance to data files using data security to

ensure integrity of data. Goessl (2010) explained that utilizing a centralized DBMS increases speed, improves data management, and over the course of time, decreases costs. In addition to these three advantages, there are other tangible benefits as well. An optimally designed DBMS will eliminate redundancy, increase efficiency and decrease inconsistency. As all business owners and managers know, accuracy and consistency are essential for maintenance of company records. Database management can help a business keep track of their customers, and their customers' buying patterns and preferences. It helps them market in the right way to the right people and helps customers retention by providing a personal touch, knowing their favorite goods or which room they always book. All of these things can be monitored in a database, and the database must be updated regularly with the new trend through adaptability skill.

Adaptability skill is about having the ability to change or be changed to fit altered circumstances. There is need for adaptability because of instances such as advances in technology, remote work team, new practices, etc. the world changing which makes employers seek out graduate who can adapt to changing circumstances. Fitting into the circumstances as a result of advances in technology requires an internet based skill.

Okwuanaso and Obayi (2003) describes internet as information superhighway that enables people to communicate and share information with ease. This information superhighway entails the internet as global network of computers to contact individuals, firms and organization which envisioned to provide very high speed access to information in all forms. Internet skills are the skills that enable an individual or organization connect to other people around and afar. Internet access is expanding rapidly, bringing both challenges and opportunities to both business and society as a whole. A big advantage is the vast amount of data and information available and

accessible, just anyone and on any kind of matter, creativity is the ability to produce work that is both novel (i.e. original, unexpected) and appropriate.

Creative skill is the kind of thinking that leads to new insights, novel approaches, fresh perspectives, and whole new ways of understanding and conceiving of things. The product of creative thought include some obvious things like, music, poetry, dance, literature, inventions and technical innovations.

Most graduates are unemployed due to inability to possess these skills (i.e. they are not moving or did not move with the change in business organizations. This increases the crime rate in the country because of unemployment, but when a graduate is well knowledgeable in one or two skills, this will place him or her at an advantage over other employees by either establishing a business or getting a job with the skills. There are instances where the employees fail or perform poorly in their tasks, because they are not knowledgeable in some needed skills they ought to possess as an employee to cope in the changing office. In Nigeria, the situation is alarming. Statistics, according to National Planning Commissions Performance Monitoring Report on Government's Ministries Department and Agencies (MDA's) shows the unemployment rate in 2010 was 21% which rose to 23.9% in 2011. A National Baseline Youth Survey Report by National Bureau of Statistics (NBS, 2012) reveals that 54% of Nigerian Youths are unemployed out of a total population of 64 million comprising youths aged between 15 and 35years out of this, 51.9% are females compared to 48.1% males (National Bureau of Statistics, 2012). It is on this note that the researcher carried out this research work about the skills needed of computer Education graduates for sustainable employment in Enugu State.

### **Statement of the Problem**

Employers of labour nowadays equip their offices with new and advanced equipment to facilitate production of information. The introduction of computers, internet, facsimile, word processing equipment and other information communication facilities has greatly affected the increased succession of hardware and software. It is noted in this regard that the Nigeria education system has failed to cope with the current trend and changes in equipping her graduates with the requisite skills needed for effective job performance virtually in all fields. The Educational system has continued to send out graduates whose performance ability in employment is in heavy doubt. Experiences show that employers of labour have continued to prove this by rejecting most graduate job applicants during recruitment. Specifically, the skill needs of most Nigeria graduates are relatively very high. Most graduates do not possess the requisite skills needed for effective performance in employment setting.

In view of these, it follows then, that the employees in an organization have to move with the trend of the changing technology and be able to perform their duties and make meaningful contributions to the success of the organizational goals, as well as to stay on their job. This situation is therefore questioning the quality of training given to these students while they are in school. The researcher is worried that if this condition should be allowed to continue, the products of computer education graduate from tertiary institutions in Enugu State might not be relevant in today's employment environment that are characterized by automation. This would result to a situation where graduates of computer education programme would not perform well or meet the employers demand and therefore rendered unemployed. The problem of the study posed as a question is, what are the skills needed by computer education graduates for sustainable employment in Enugu State?.

### **Purpose of the Study**

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The major purpose of this study is to ascertain the skills needed by Computer Education graduates for sustainable employment in Enugu State. Specifically, the study sought to:

1. ascertain the database management skills needed by computer education graduates for sustainable employment.
2. explore the adaptability skills needed by computer education graduates for sustainable employment.
3. ascertain the internet skills needed by computer education graduates for sustainable employment.
4. ascertain the creative skills needed by computer education graduates for sustainable employment.

### **Research Questions**

The following research questions guided the study:

1. What are the database management skills needed by computer education graduates for sustainable employment?
2. What are the adaptability skills needed by computer education graduates for sustainable employment?
3. What are the internet skills needed by computer education graduates for sustainable employment?
4. What are the creative skills needed by computer education graduates for sustainable employment?

### **Hypotheses**

The following hypotheses were tested at 0.05 level of significance

- Ho<sub>1</sub> There is no significant difference between the mean ratings of lecturers and students of computer education on the database management skills needed by computer education graduates for sustainable employment in Enugu State.
- Ho<sub>2</sub> There is no significant difference between the mean ratings of lecturers and students of computer education on the adaptability skills needed by

computer education graduates for sustainable employment in Enugu State.

- Ho<sub>3</sub> There is no significant difference between the mean ratings of lecturers and students of computer education on the internet skills needed by computer education graduates for sustainable employment in Enugu State.

- Ho<sub>4</sub> There is no significant difference between the mean ratings of lecturers and students of computer education on the creative skills needed by computer education graduates for sustainable employment in Enugu State.

### **Method**

Census survey research design was adopted for the study. This implies that the entire respondents were involved. It was considered appropriate for the study following the description of census survey by Nworgu (2015) and Alio (2008) as the type of survey research design in which the entire population for the study is used. The population for the study is 100 Lecturers and Students, comprising 25 and 55 computer education final year students (2018/2019) session and 6 and 14 lecturers from Enugu State University of Science and Technology (ESUT) and University of Nigeria Nsukka (UNN) respectively. This is based on the data obtained from a preliminary survey conducted by the researcher in the Computer Education departments of Federal and State universities in Enugu State. The population size was manageable hence there was no sampling. A 35-item questionnaire developed by the researcher was used for data collection. The questionnaire titled; Skills needed by Computer Education Graduates for Sustainable Employment is of two parts. Part 1 which concerned the personal data of the respondents and part II that consists of the items that addressed research questions which was pertinent to the variables of the study. The 35 items of the questionnaire that guided the study were arranged in five clusters in line with the four research questions that guided the

study. Specifically, Cluster A has 10 items on the database management skills, Cluster B has 6 items on the adaptability skills, Cluster C has 12 items on the internet skills while Cluster D has 7 items on the creative skills needed by computer education graduates for sustainable employment. The items were structured on four-point rating scale with the following response options: of Highly Required (HR), Averagely Required (AR), Required (R), Not Required (NR). The Instrument Was validated by three research experts; two from Mathematics and Computer Education Department and one other expert from the field of Measurement and Evaluation, all from the Faculty of Education, Enugu State University of Science and Technology (ESUT) .

The reliability of the instrument was determined using Cronbach Alpha Reliability Coefficient, overall reliability coefficient was 0.97, indicating that the instrument was reliable for use in data collection. The questionnaire were administered and retrieved by the researchers with the help of one research assistant that was properly trained on the content of the questionnaire and its administration to ensure that the questionnaire was properly administered.100

copies of the questionnaire was administered to the total population, and was retrieved and used for analysis. Data collected with the questionnaire was analyzed using Mean(x) with Standard Deviation (SD) to answer each of the four research questions. However, each of the four hypotheses was tested using t-test statistics at 0.05 level of significance. The analysis was computer based with the use of the Statistical Package for Social Sciences (SPSS) to analyze the respondents’ ratings. The decision rule for the Mean(x) was based on the principle of Mean, **2.50**

$$\text{gotten by } \frac{4+3+2+1}{4} = 2.50$$

<2.50 rejected or ≥2.50 accepted; any item with a mean score less than **2.50** was considered not required and any item mean of **2.50** and above was considered required. The null hypotheses were rejected when the significant level was less than and were not rejected when the significant level was more than 0.05 level of significance.

**Results**

**Research Question 1:**What are the database management skills needed by computer education graduates for sustainable employment in Enugu State?

**Table 1:** Mean responses and standard deviation of the respondents on the database management skills needed by computer education graduates for sustainable employment in Enugu State

**N=100**

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S/N	The database management skills needed are:	HR	AR	R	NR	X	SD	DEC
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1.	Enter data using existing template and other techniques	53	21	13	13	3.14	1.08	Required
2.	Recognize parts of database, like: records, fields etc	56	20	12	12	3.20	1.06	Required
3.	Create database tables, queries, reports and forms	33	23	19	25	2.64	1.19	Required
4.	Sort data	45	25	19	11	3.04	1.04	Required
5.	Manage files	40	25	21	14	2.91	1.08	Required
6.	Design, preview, print, database files	69	31	0	0	3.69	.47	Required
7.	Use SQL programming language	44	26	16	14	3.00	1.08	Required
8.	Upload database forms/tables to the web	37	20	24	19	2.75	1.15	Required
9.	Merge data	38	22	22	18	2.80	1.14	Required
10.	Query data in a database	38	24	22	16	2.84	1.11	Required
<b>GRAND MEAN</b>						<b>3.00</b>	<b>1.04</b>	

The results of data analysis in Table 1 indicated that items 16 to 25 had high mean responses. The grand mean (3.00) was also high. The mean response on item 21 (3.69) was particularly higher than others. This means that items 16 to 25 were the aspects of database management

skills needed by computer education graduates for sustainable employment in Enugu State.

**Research Question 2:** What are the adaptability skills needed by computer education graduates for sustainable employment in Enugu State?

**Table 2:** Mean responses and standard deviation of the respondents on the adaptability skills needed by computer education graduates for sustainable employment in Enugu State

**N=100**

S/N	The adaptability skill needed are:	HR	AR	R	NR	X	SD	DEC
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11.	Embrace change in work and work environment even when there are some ambiguities	29	24	23	24	2.58	1.15	Required
12.	Acquire new knowledge, skill and processes	49	18	16	17	2.99	1.16	Required
13.	Maintain or shift focus on operational goals in response to changing organizational priorities	50	16	19	15	3.01	1.14	Required
14.	Respond quickly to unexpected events	54	15	15	16	3.07	1.16	Required
15.	Contribute to innovative solutions.	55	16	15	14	3.12	1.12	Required
16.	Think creatively	41	17	20	22	2.77	1.21	Required
	<b>GRAND MEAN</b>					<b>2.92</b>	<b>1.16</b>	

Table 2 above presents the results of data analyses for research question 3. All the items (26 to 31) had mean responses that were higher than the cut-off point of 2.50. The grand mean (2.92) was also high. This implies that items 26

to 31 constituted the adaptability skills needed by computer education graduates for sustainable employment in Enugu State.

**Research Question 3:** What are the internet skills needed by computer education graduates for sustainable employment in Enugu State?

**Table 3:** Mean responses and standard deviation of the respondents on the internet skills needed by computer education graduates for sustainable employment in Enugu State

**N=100**

S/N	The internet skills needed are:	HR	AR	R	NR	X	SD	DEC
17.	Use search engines	70	30	0	0	3.70	.46	Required
18.	Organize teleconferencing	69	31	0	0	3.69	.47	Required
19.	Use the save or retrieve files from the internet	74	15	5	6	3.57	.84	Required
20.	Use electronic data security	56	31	10	3	3.40	.79	Required
21.	Send pictures or graphic through the internet	55	30	9	6	3.34	.88	Required
22.	Operate the electronic mail (e-mail)	26	21	25	28	2.45	1.16	NR
23.	Attach document and files	78	11	9	2	3.65	.73	Required
24.	Order and purchase product online	79	11	8	2	3.67	.71	Required
25.	Advertise online	92	7	1	0	3.91	.32	Required
26.	Apply presentations on slide show	77	20	2	1	3.73	.55	Required
27.	Record presentation online through the server	76	16	6	2	3.66	.69	Required
28.	Create a web page	78	11	9	2	3.65	.73	Required
<b>GRAND MEAN</b>						<b>3.53</b>	<b>.69</b>	

From Table 3 above, the mean responses to the items were higher than the cut-off point of 2.50, expect item 37 which has mean response of (2.45) implying that the respondents agreed that the items

(32,33,34,35,36,38,39,40,41,42,43) are the internet skills needed by computer education graduates for sustainable employment in Enugu State.

**Research Question 4:** What are the creative skills needed by computer education graduates for sustainable employment in Enugu State?

**Table 4:** Mean responses and standard deviation of the respondents on the creative skills needed by computer education graduates for sustainable employment in Enugu State

**N=100**

S/N	The creative skills needed are:	HR	AR	R	NR	X	SD	DEC
29.	Explore new and different ways of accomplishing a task and processes involved in the tasks.	78	11	8	3	3.64	.76	Required
30.	Apply emotional intelligence to recognize, validate, harness and progress at work	59	31	6	4	3.45	.78	Required
31.	Use creative thinking skills and techniques to innovate processes, project and tasks to implement change to facilitate improvements	57	32	6	5	3.41	.82	Required
32.	Identify and implement new ideas	79	12	5	4	3.66	.76	Required
33.	Break down a subject into parts, detect multiple views, question evidence, hypothesize alternatives and come to sound conclusions	61	34	1	4	3.52	.72	Required
34.	Explore alternatives, challenges assumptions, and examines accuracy of beliefs	76	19	1	4	3.67	.61	Required
35.	Seek out ways to learn more about effectively introducing change in the workplace.	76	19	1	4	3.67	.61	Required
						<b>3.57</b>	<b>.72</b>	
GRAND MEAN								

From Table 5 above, the mean of items 44 to 50 were higher than the cut-off point of 2.50. The value of the grand mean (3.57) was also high. This implies that the respondents agreed that all the items constituted the creative skills needed by computer education graduates for sustainable employment in Enugu State.

**Hypothesis 1:**

There is no significant difference between the mean ratings of lecturers and students of computer education on the database management skills needed by computer education graduates for sustainable employment in Enugu State.

**Table 5:** t-test on the mean ratings of lecturers and students of computer education on the database management skills needed by computer education graduates for sustainable employment in Enugu State.

STATUS	N	Mean	Std. Deviation	t	df	Sig.	Dec.
LECTURERS	20	3.05	1.234	-.414	98	.250	NS
STUDENTS	80	3.16	1.049				

Table 5 shows that the t value for the difference in mean rating of lecturers and students of computer education on the database management skills needed by computer education graduates for sustainable employment in Enugu State is -.414, significant at 0.250 level of significance, which is higher than 0.05 set for the study. The null hypothesis is therefore not rejected. This means that there is no significant difference in the mean ratings

of lecturers and students of computer education on the database management skills needed by computer education graduates for sustainable employment in Enugu State.

**Hypothesis 2:** There is no significant difference between the mean ratings of lecturers and students of computer education on the adaptability skills needed by computer education graduates for sustainable employment in Enugu State.

**Table 6:** t-test on the mean ratings of lecturers and students of computer education on the adaptability skills needed by computer education graduates for sustainable employment in Enugu State.

STATUS	N	Mean	Std. Deviation	t	df	Sig.	Dec.
LECTURERS	20	2.05	1.099	-2.362	98	.762	NS
STUDENTS	80	2.71	1.127				

Table 6 shows that the t value for the difference in mean rating of lecturers and students of computer education on the adaptability skills needed by computer education graduates for sustainable employment in Enugu State is -2.362, significant at 0.762 level of significance, which is higher than 0.05 set for the study. The null hypothesis is therefore not rejected. This means that there is no significant difference in

the mean ratings of lecturers and students of computer education on the adaptability skills needed by computer education graduates for sustainable employment in Enugu State.

**Hypothesis 3:** There is no significant difference between the mean ratings of lecturers and students of computer education on the internet skills needed by computer education graduates for sustainable employment in Enugu State.

**Table 7:** t-test on the mean ratings of lecturers and students of computer education on the internet skills needed by computer education graduates for sustainable employment in Enugu State.

STATUS	N	Mean	Std. Deviation	t	df	Sig.	Dec.
LECTURERS	20	3.60	.503	-1.087	98	.085	NS
STUDENTS	80	3.73	.449				

Table 7 shows that the t value for the difference in mean rating of lecturers and students of computer education on the internet skills needed by computer education graduates for sustainable employment in Enugu State is -1.087, significant at 0.085 level of significance, which is higher than 0.05 set for the study. The null hypothesis is therefore not rejected. This means that there is no significant difference in

**Table 8:** t-test on the mean ratings of lecturers and students of computer education on the creative skills needed by computer education graduates for sustainable employment in Enugu State.

STATUS	N	Mean	Std. Deviation	t	df	Sig.	Dec.
LECTURERS	20	3.65	.875	.066	98	.742	NS
STUDENTS	80	3.64	.733				

Table 8 shows that the t value for the difference in mean rating of lecturers and students of computer education on the creative skills needed by computer education graduates for sustainable employment in Enugu State is .066, significant at 0.742 level of significance, which is higher than 0.05 set for the study. The null hypothesis is therefore not rejected. This means that there is no significant difference in the mean ratings of lecturers and students of computer education on the creative skills needed by computer education graduates for sustainable employment in Enugu State.

**Summary of Findings**

The results of data analyses for the study revealed the following:

1. The database management skills needed by computer education graduates for sustainable employment in Enugu State

the mean ratings of lecturers and students of computer education on the internet skills needed by computer education graduates for sustainable employment in Enugu State.

**Hypothesis 4:** There is no significant difference between the mean ratings of lecturers and students of computer education on the creative skills needed by computer education graduates for sustainable employment in Enugu State.

2. The adaptability skills needed by computer education graduates for sustainable employment in Enugu State was high, and include inter alia, contribute to innovative solutions, respond quickly to unexpected events among others. There is no significant difference in the mean ratings of lecturers and students of computer education on the adaptability skills needed by computer education graduates for sustainable employment in Enugu State.

was high, and include create database tables, query, reports and forms, design, preview, print database files etc. There is no significant difference in the mean ratings of lecturers and students of computer education on the database management skills needed by computer education graduates for sustainable employment in Enugu State.

3. The internet skills needed by computer education graduates for sustainable employment in Enugu State was high, and include inter alia, organize teleconferencing, attach document and file, order and purchase products online, etc. There is no significant difference in the mean ratings of lecturers and students of computer education on the internet skills needed by computer education graduates for sustainable employment in Enugu State.
4. The creative skills needed by computer education graduates for sustainable employment in Enugu State was high, and include inter alia, Explore alternatives, challenges assumptions, and examines accuracy of beliefs, Use creative thinking skills and techniques to innovate processes, project and tasks to implement change to facilitate improvements, Identify and implement new ideas, Break down a subject into parts, detect multiple views, question evidence, hypothesize alternatives and come to sound conclusions, etc. There is no significant difference in the mean ratings of lecturers and students of computer education on the creative skills needed by computer education graduates for sustainable employment in Enugu State.

### **Discussion of Findings**

The findings of this study were discussed in line with the research questions that guided the study and hypotheses tested.

### **Database Management Skills Needed by Computer Education Graduates for Sustainable Employment**

The findings of the study with respect to research question two revealed that the skills needed are; Enter data using existing template and other techniques, Recognize parts of database, like: records, fields etc, Create database tables, queries, reports and forms, Sort data, Manage files, Design, preview, print, database files, Use SQL programming language, Upload database forms/tables to the web, Merge data, Query data in a database,

were database management skills needed by computer education graduate for sustainable employment. The findings also indicated that these skills are highly required by the graduates for sustainable employment.

The result of this study was supported by Osuala (2009) that database is the collection of interrelated facts. The software can store data, update, manipulate, retrieve, report it in variety of views and print in many forms. When data processes, the result becomes useful information. The findings of the study was further supported by Onah (2004) that with specialized software, microcomputers can act as an electronic filing system or information managers, storing, retrieving, manipulating data and generating report swiftly and effectively. Commonly used database creation and management program/software includes: Access, Corel Paradox, ForBASE, Dbase 11, Dbase 11+, Dbase 1V, Oracle 8 or Sybase, SQL server etc. This showed that the itemized skills are database management skills needed by computer education graduates for sustainable employment in Enugu State.

The test of hypothesis on the database management skills needed by computer education graduates showed no significant difference in the mean ratings of lecturers and students of computer education graduates for sustainable employment in Enugu State. The implication of this finding was that the status of the respondent has no significant influence on the ratings to the items. This finding of no significant difference is similar to that of Okafor (2017) who found that gender, and status of the respondents have no influence on the mean rating concerning the database management skills required by the students for effective performance and employability in modern or automated offices.

### **Adaptability Skills Needed by Computer Education Graduates for Sustainable Employment**

The results of the study with regard to research question three depicted that the skills

needed are; embrace change in work and work environment even when there are some ambiguities, acquire new knowledge, skill and processes, maintain or shift focus on operational goals in response to changing organizational priorities, respond quickly to unexpected events, contribute to innovative solutions, and think creatively identified as the adaptability skills needed by computer education graduates for sustainable employment. The findings of the revealed that the respondents showed that the itemized adaptability skills are highly needed for sustainable employment of computer education graduates.

The findings of the study were in agreement with the findings in the mid (1990s) that the use of computer and the internet was not viewed as a necessary tool for employment but now, we are almost. People rely almost exclusively on e-mail, internet research e-marketing and web access for outgoing and incoming data. This depicted that the identified adaptability skills are highly needed by computer education graduates for sustainable employment in Enugu State.

The test of hypothesis on the adaptability skills needed by computer education graduates showed no significant difference in the mean ratings of lecturers and students of computer education graduates for sustainable employment in Enugu State. The implication of this finding was that the status of the respondent has no significant influence on the ratings to the itemized adaptability skills highly needed for computer education graduates for sustainable employment.

#### **Internet Skills Needed by Computer education Graduates for Sustainable Employment**

The results of the study with regard to research question four depicted that the skills needed are; use of search engines, organize teleconferencing, use the save or retrieve files from the internet, use electronic data security, send pictures or graphic through the internet,

operate the electronic mail (e-mail), attach document and files, order and purchase product online, advertise online, apply presentations on slide show, record presentation online through the server, create a web page, identified as internet skills needed by computer education graduates for sustainable employment. The findings of the study indicated that these internet skills are part of the skills needed by computer education graduates for sustainable employment.

The findings of the study were in agreement with Ikekeonwu (2003), that internet is a huge, loose collection of autonomous, international computer networks, interconnected by a large network of telecommunication links. The findings were also supported by Agba (2001), who quoted the oxford science dictionary stated that the internet is “the global network that links most of the world’s computer networks. This depicted that the identified internet skills are highly needed by computer education graduates for sustainable employment in Enugu State.

The test of hypothesis on the internet skills needed by computer education graduates showed no significant difference in the mean ratings of lecturers and students of computer education graduates for sustainable employment in Enugu State. The implication of this finding was that the status of the respondent has no significant influence on the ratings to the itemized internet skills highly needed for computer education graduates for sustainable employment.

#### **Creative Skills Needed by Computer education Graduates for Sustainable Employment**

The result of the data analysis in research question five depicted that skills needed are; Explore new and different ways of accomplishing a task and processes involved in the tasks, Apply emotional intelligence to recognize, validate, harness and progress at work, Use creative thinking skills and



techniques to innovate processes, project and tasks to implement change to facilitate improvements, Identify and implement new ideas, Break down a subject into parts, detect multiple views, question evidence, hypothesize alternatives and come to sound conclusions, Explore alternatives, challenges assumptions, and examine accuracy of beliefs, Seek out ways to learn more about effectively introducing change in the workplace. These were internet skills needed by computer education graduates for sustainable employment. The findings also indicated that these skills are highly required by the graduates for sustainable employment.

The result of this study was supported by Amabile et al (1996), who defined innovation as the successful implementation of creative ideas within an organization. Thus, no innovation is possible without the creative processes that mark the front end of the process: identifying important problems and opportunities, gathering information, generating new ideas, and exploring the validity of those ideas (Amabile, 2004). This showed that the itemized skills are innovative skills needed by computer education graduates for sustainable employment.

The test of hypothesis on the innovative skills needed by computer education graduates showed no significant difference in the mean ratings of lecturers and students of computer education graduates for sustainable employment in Enugu State. The implication of this finding was that the status of the respondent has no significant influence on the ratings to the items on the innovative skills needed by computer education graduates for sustainable employment in Enugu State.

### **Conclusion of the Study**

Based on the findings of the study, information has been gathered on the skills needed by computer education graduates for sustainable employment in Enugu State. At the course of this study on skills, it has created a huge gap between the skills possessed and needed for sustainable employment by computer

education graduates. Skills in this context of this study are the soft and hard skills for effective manipulation, operation and utilization to achieve a great success in an organization. The result of the study showed that the needed skills by computer education graduates for sustainable employment in Enugu state includes; database management skills, adaptability skills, internet skills and creative skills.

It was found that these skills were highly needed by computer education graduates for sustainable employment in Enugu State. Based on the empirical findings of this study, it was therefore concluded that the skills identified should be fully integrated into the curriculum used in training computer education students for sustainable employment upon graduation. The lecturers and students shared the same view that these skills were highly required by computer education graduates and cannot be neglected.

### **Counselling Implication of the Study**

The findings of the study based on the result of data analysis had far reaching implications for the government, curriculum planners, universities, computer education programmes administrators, lecturers and students of computer education in universities and general public. The findings of the study have implication for the government in that these identified skills would help in training employable and responsive members of the society. This would reduce the level of unemployment in the society and provide enough tax for the government.

The findings of the study would enable the curriculum planners in universities to integrate the much needed skills for successful and sustainable employment of the students after graduation. The result would enable them to conduct curriculum evaluation of computer education in universities. This would enhance the quality of education offered to the students which consequently would address the need of skill mismatch in the society.

Further, the findings will enable the administrators in universities to understand the needed skills by computer education graduates for sustainable employment. This would enable them to conduct effective supervision and monitoring of instructional delivery approaches to the society.

The lecturers of computer education having identified these skills would make sure that related instructional delivery approaches were used. This would help in inculcating the right skills, knowledge and perception to students during the instructional delivery approaches. The students at the receiving end of the teaching-learning process would be given the opportunity to learn new skills.

Furthermore, the findings of the study would have implication for general public. This is because it revealed needed skills by computer education graduates for sustainable employment, which would in turn reduce the level of unemployment and joblessness among the graduates. The findings of the study would enable the future researcher to have an empirical data on the skills needed by computer education graduates for sustainable employment. This would also add to the available literature in this field of study.

#### **Recommendations of the Study**

Based on the findings of the study, the researcher recommends as follows:

1. The identified skills for sustainable employment should be integrated into the curriculum of computer education programme by the curriculum planners.
2. Lecturers should adopt these skills and make it practically oriented instead of theoretical-based to enable computer education students acquire them for sustainable employment after graduation.
3. The computer equipment should be made available by the school administrator and the government in order to promote the teaching of the identified skills to the students.

4. The school administrators should supervise the teaching of the identified skills in order to promote quality in the mastery of the identified skills by the students.
5. Seminars and workshops should be organized by computer expert for students, to enlighten them on the importance of acquiring these identified skills.

#### **References**

- Adler, R., & Towne, N. (1978). *Looking out/looking in* (2<sup>nd</sup> ed.) New York; Holt. Rinehart and Winston.
- Agba, P.C. (2001). *Electronic Reporting: Heart of the new communication age* Enugu: Snap press Ltd.
- Agomuo, E.E. (2005). *Modern Office Technology: Issue procedures and practices*, University of Nigeria press Ltd.
- Akpomi M.E. (2003). *Effect of modern Office Technology as perceived by secretaries*. Bus. Edu. J. 4(1): 147-155.
- Akpomi, M. & P. Ordu, (2009). *Modern Office Technology and the secretary's productivity in private business organizations*. Afr. J. Bus. Manage., 3(8): 333-339.
- Alio, A.N. (2008). *Fundamentals of Educational Research*. Enugu. Samireen Nigeria ltd.
- Amaka, N.E. (2010). *Electronic Data Processing*. Enugu; J.T.C. Publishers.
- Amabile, T.M., Conti, R., Coon, H., Lazenby, I. & Herron, M. (1996). *Assessing the work environment for creativity* *Academy of Management Journal*, 39:1154-1184.
- Amabile, T.M. Schatzel, E., A., Moneta, G.B., & Kramer, S. J. (2004). *Leader behavior*

and the work environment for creativity: *Perceived leader support*. *Leadership Quarterly*, 15:5-32,

Amoor S.S. (2009). *An Evaluation of Challenges of Secretarial Education programme in Nigerian Universities Between 2000-2009*. *The information manager* 9 (1) 2009.

Archer, W. & Davison J. (2008) *Graduate employability: What do employers think and want?* London, the council for Industry and Higher Education. (CIHE)

Akinson, J. (1985). *Flexibility, uncertainty and manpower management (p. 124)*. Brighton, UK, Institute for Employment Studies.

Azuka, E.B. (1998). *Modern secretarial Duties: Journal of Business Education*. (2).6-7.

Azuka, E.I., (2007). *Electronic Word Processing*. Enugu Cheston Agency Ltd.

Bakpo, F.S. (2003) "Software Design Modelling with Functional Petri Nets" *Nigeria Journal of Technology* (NIJOTECH) University of Nigeria, Nsukka, (Accepted for Publication).

Britannica Concise Encyclopedia. (2010). *What is Computer Graphics*. Retrieved on May 13<sup>th</sup>, 2011 from <http://www.answers.com>

Brown, P., Halsey, A. H., Lauder, H., & Wells, A.S. (1997). *The transformation of education and society: O.U.P. UK*. An introduction (P.165).

Chukwumezie, F.U. (2002). *The Internet Competencies Required of secretaries in a Technological Environment*. *Business Education Journal* 3(6) October, pp. 24-36.

CIMA, Chartered Institute of Management Accountants (1998) "*The changing Role of the Management Accountant and its Implications for Qualification Development, Management Accounting*, (76), September, 68-69.

Dreyfus, H.L., & Dreyfus, S.E. (1986). *Mind over machine: The power of human intuition and expertise in the era of the computer*. New York: Free Press.

Edwin A. E. (2008). *Self-employment: An option for professional secretaries in Nigeria*. *J. Contemporary Bus. Ed. Res. (JOCBER)* 1(1): 25-30.

Egbokhan, E.I. (2000). *The place of shorthand as secretarial profession Moves to a New Horizon Proceeding from NAPSSON, 9<sup>th</sup> Annual National Workshop*.

Ekpenyong, L.E. (2008). *Foundations of Technical & Vocational Education: Evolution and Practice*.

Eze, F.O. (2016). *Perception of business studies teachers in the use of computer technologies in teaching. Unpublished B.Sc project report*. Department of Technology and Vocational Education Enugu State University of Science and Technology.

Federal Republic of Nigeria (2013). *Philosophy and Goals of Education in Nigeria* (3<sup>rd</sup> ed.) Lagos: NERDC Press

Furrier, A & Sels, C. (2003). *Temporary employment and employability. Training opportunities and effort of temporary and permanent employees on Belgium Journal of Work, Employment and society* 17(14) 641-666.

- Garry, P. (2012) Definition of skills. Retrieved 21 June, 2013.
- Gore, I. (2005). Extending employability or solving employers Recruitment problems? Demand-led approaches as an instrument of labour market policy. *Journal of Urban studies* 42(2) 341-353.
- Harvey, L., Locke, W. & Morey, A., (2002). *Enhancing Employability Recognizing Diversity*. London, Universities UK.
- Hew, T.S. & Leong, L.Y. (2011). An Empirical Analysis of Malaysian Pre-University Students ICT Competency Gender Difference. *International Journal of Network and Mobil Technology* 2(1), 15-29
- Hillage, J. & Pollard, E., (1998). *Employability: Developing a framework for policy analysis, Department for Education and Employment (DFEE) London, DFEE. Research report RR 85.*
- Job Outlook.. (2000). Spotlight on Career services, Recruitment and HR/Staffing, 23, 6. Bethlehem, PA: National Association of Colleges and Employers (NACE).
- Ikekeonwu, G.A.M. (2003). *Computer Application* Enugu Immaculate publications, ltd.
- Isineyi, T.N. (2006) Challenges of secretarial profession in the Era of Globalization *Journal of Professional secretarial and Administrators* (12) 13-25.
- Kim, Y. (1991). "Intercultural communication competence: A systems-theoretic view." In S. Ting-Toomey & F. Korzeny (Eds). *Cross-cultural interpersonal communication* (pp. 259-275). Newbury park: Sage publications.
- Kotler P. (2003). *Marketing management*, 11<sup>th</sup> edition, prentice-Hall, New Jerse.
- Leont'ev (1920) *Activity Theory*.
- Lehr, F. (1995). *Revision in the writing process*. ERIC Digest.
- Lewis, E.L., Stem, J.L., & Linn, M. C. (1993). *The effect of computer simulations an introductory thermodynamics understanding*. *Educational Technology* (33) 45-58.
- Margeret Akpomi & Pac Ordu (2009). Modern office technology and the secretary's productivity in private business organizations. *African Journal of Business Management* 3(8) 333-339.
- Maslow, A. (1970). *Motivation and personality* New York: Harper & Row.
- Mclarty, R. (1998). *Using Graduate skills in small and medium sized Enterprise* Ipswich: University College Suffolk press.
- Mcleod, R & Jones, J.W. (1987). *A frame Work for Office Automation-MIS Quarterly*. (11) 187-90.
- Mullins, C.S. (2002). *Administration: The complete guide to practice and procedure*. New York: Addison Wesley
- NABI, G.R. (2003). "Graduate Employment and Underemployment: Opportunity for skill use and career experience amongst recent Business Graduate, Education and Training 45 (7): 371-383.
- Njoku, C.U. (2006). *Business education and Value Orientation for National*

*Economic Empowerment.* Paper presented at the Owo 2006 Annual Conference of the Association of Business Education of Nigeria (ABEN) on the theme.

Nolan, C.A. Hayden, C.K. & Malsbary, D.R. (1967). *Principles and Problems of business education.* Chicago South Western Publishing Company.

Ntukidem, E., (2000). Technological advancement of secretarial profession challenges and implications for secretaries and business educators. *Bus. Educ. J.* 3(3): 56-69.

Nworgu, B.G. (2015). *Educational Research; Basic issues and methodology.* Nsukka; University Trust Publishers.

Nwosu, B. O. (2001). Word processing and Electronic Office Operations Competencies currently Needed by Secretaries in selected Business offices in Abia and Imo State. Paper presented at the 2001 National conference Held at the federal polytechnic Idah, Kogi State, 27<sup>th</sup> November 1<sup>st</sup> December.

Nwosu, B.O. (2002). Word Processing and Electronic office operations competencies needed by secretaries in selected business offices in Abia and Imo States. *Bus. Educ. J.* 8(5):172.

Nyanabo, I.F. & Ahukannah. L.I. (2008). *Introduction to vocational Technical Education.* Polytechnic publisher Ltd, Lagos.

Odoh, C.E. (2015). Impact of Emerging Technologies on the teaching of Computer Education in Tertiary Institutions in Enugu State. *Unpublished B.sc project report.*

Department of Science and Computer Education Enugu State University of Science and Technology.

Oduma, C.A. & Ile, C.M. (2012), Office Employability competencies Needed by Business Education Graduates for Effective Job performance in modern organizations in Nigeria: *An International Journal of Arts and Humanities* 1(2) May, 2012: 211-223.

Ohakwe, S.N. (2001). Manual skills information Technology Era. *Bus. Ed. J.* 111(4):61-66.

Ohakwe, S.N. (2003). Repackaging our poverty alleviation programme towards a Great and Dynamic economic. Paper presented at 2<sup>nd</sup> Annual Conference of the Association for Encouraging Qualitative Education in Nigeria. AAU Ekpoma, 10<sup>th</sup>-4<sup>th</sup> September.

Ojobo, J. A. (2008). Education: A Catalyst for women empowerment. *Ethiopia Journal of Education and Science* (4) 1 September.

Okafor, C.E. (2017). ICT employability skills possessed by business education graduates for sustainable economic empowerment in North West zone of Nigeria. *Unpublished Ph.D Thesis.* Department of Technical and Vocational Education. Enugu State University of Science and Technology Enugu.

Okeke, E.F. (2017). New technology skills needed by business studies teachers for quality teaching in Anambra State. *Journal of science and education* 2(3) 131-139

Okeke, F.N. (2006). The imperative of Information Communication

Technology (ICT) to the Development of the Teacher, Book of Proceeding of National Conference Faculty of Education, University of Abuja (1) 249-255.

Okorie, J.U. (2000). *Organizational Management* Ibadan L Hebn Pub.co

Okorie, J.U. (2001). *Vocational Industrial Education*. Bauchi: League of Researchers Publishers.

Okorojiofor (2018) ICT skills needed by office technology management students of colleges of education for effective performance in modern offices in Enugu State.

Okwuanaso, S & Obayi, T. (2003). *Element of office Automation*. Enugu. JTC publishers.

Onah, I.F.C. (2004) *Introduction to Management and Information System*. Enugu: SCANN Publishers.

Onoh, B.C. (2011). *Fundamentals of Entrepreneurship studies*. Enugu. Cheston Agency Limited.

Osuala E. C. (2001). *Introduction to Research Methodology*. Onitsha Africana-Fep Publishers Ltd.

Osuala, E.C. (2004). *Principles and Methods of Business and Computer Education*. Enugu Cheston Agency Ltd.

Osuala E. C. (2009). *Business and Computer Education*. Enugu; Cheston Agency Limited.

Ovibaigel, A.O. (2006). Common Uses of Information and Communication Technology in Organization. *Journal of*

*Office Management and Technology*, 1(1)33-34

Popham, E.L. Schrag, A.F., & Bloc (1971). *A teaching Learning System for Business Education*. New York: Megraus.

Purcell, K. & Elias, P. (2004) Higher education and gendered career development Research paper No.4.

Salami, L.T. (2009). *Professional secretary in an era of ICT: Challenges and Implication for job performance*. Assoc Bus. Educators Nigeria Book Reading 1(9): 196-193.

Samson, G. E. (1985). "Effects of Training in Test-Taking Skills on Achievement Test Performance: A Quantitative Synthesis *Journal of Educational Research* 78/5:261-266.

Schermerhom, R.J. (1986). *Management for Productivity*. New York: John Wiley and Son.

Seimens, G. (2004). Connectivism; a learning theory for the digital age. Retrieved from [www.http/wikipedia.com](http://www.wikipedia.com)

Spencer D.D. (1981) *Introduction to Information Processing* Columbus. Charles E. Meril Publishing Coy.

Stair, R.M. (1986). *Computer in Today's World*. USA: Irwin Homewood Publishers.

Sternberg, R.J. (Ed.) (1999a). *Handbook of creativity*. New York: Cambridge University Press.

Sternberg, R.J. (Ed.) (1999b). A propulsion model of creative contribution. *Review of general Psychology*: 3, 83-100.

TUCRER, M.L., SOJKA, S> BARONE, F. & MCCATHY, A. (2000). “Training Tomorrow’s Leaders Enhancing the Emotional Intelligence of Business Graduates *Journal of Education for Business* 75(6):331-338.

UKCES (2009a). employee Demand for skills: A Review of Evidence and Policy Executive Summary.

UNESCO, U.O. (2002). Technical and Vocational Education and Training for the Twenty-first Century, UNESCO and ILO Recommendations.

University UK/CBI (2009). Future fit- Preparing graduates for the world of work, ISBN: 978 0-85201-689-5.

Yorke, M. (2004) Employability in Higher Education What it is , what it is not, Higher Education Academy ESECT.