

Enhancing Vocational Skills Acquisition among Technical Education Students in Tertiary Institutions in Akwa Ibom State, Nigeria.**Udoudo, Namkere John, Ph.D**Department of Industrial Technology Education,
University of Uyo,
Akwa Ibom State, Nigeria**&****Udoetuk, Udemé Stephen, Ph.D**Department of Technical Education,
College of Education,
Afaha Nsit, Akwa Ibom State, Nigeria.**Abstract**

The study sought to determine strategies for enhancing vocational skills acquisition among Technical Education Students in Tertiary Institutions in Akwa Ibom State, Nigeria. The descriptive survey research design was used with two specific purposes and their corresponding research questions and hypotheses. The population of the study comprised 167 persons made up of 101 full time undergraduate Technical Education students in the Department of Industrial Technology Education, University of Uyo as well as 66 NCE undergraduate students in the Department of Technical Education, College of Education, Afaha Nsit in the 2019/2020 academic session. The sample comprised 114 respondents made up of 69 students from the University of Uyo and 45 students from College of Education, Afaha Nsit. The sample was selected using proportionate sampling technique. A questionnaire titled "Strategies for Enhancing Vocational Skills Acquisition among Technical Education Students in Akwa Ibom State Tertiary Institutions Questionnaire" was used for data collection. The instrument contained 11 items which were structured on 5-points Likert scale and has an internal consistency reliability index of 0.87 obtained using Cronbach Alpha reliability analysis. One hundred and twelve (112) out of 114 copies of the questionnaire administered were correctly completed and returned, representing 98.25% return rate. The Mean was used for answering the research questions while the null hypotheses were tested with the independent t-test statistic at 0.05 probability level. The study found four curriculum-related strategies as well as five Teaching/Evaluation strategies for enhancing vocational skills acquisition among Technical Education Students in Akwa Ibom State Tertiary Institutions. There was no significant difference between the mean responses of Technical Education students from University of Uyo and those from College of Education, Afaha Nsit on the issues at stake. The researchers recommended, among others, that the curriculum content of the NCE and degree programmes in Technical Education should be reviewed to include more technical courses and lesser number of general/education courses in order to enhance vocational skills acquisition among the students.

Key Words: Vocational skills acquisition, Technical Education, Tertiary Institutions**Introduction**

Technical Education also known Industrial Technology Education, is one of the Vocational Education courses offered in Nigerian tertiary institutions such as Polytechnics, Colleges of Education and Universities. Technical Education is that aspect of education which leads to the acquisition of practical and applied skills, as well as basic scientific knowledge (Ogwo and Oranu, 2006). It is concerned with that body of knowledge organized in a planned sequence of classroom and laboratory experiences, usually at the post-secondary level to prepare students for a cluster of job opportunities in a specialized field of technology. Akaninwor (2010) stated that the programmes of instruction in Technical Education normally include the study of the underlying sciences and supporting mathematics inherent in technology, as well as the methods, skills, materials, processes and services commonly performed in that field of technology.

Technical Education is offered in several types of educational institutions in Nigeria. These are the junior and senior secondary schools, vocational schools and technical colleges at post-primary education level, the Polytechnics, Monotechnics, Colleges of Education (conventional and technical) as well as the Universities at the Tertiary Education level. This paper is concerned with Technical Education Programmes at the Tertiary Education level. Tertiary Education is the education given after Post Basic Education in institutions such as Universities and Inter-University Centres, Innovation Enterprise Institutions (IEIs), Colleges of Education, Polytechnics, Monotechnics, and other specialized institutions such as Colleges of Agriculture, Schools of Health and Technology and the National Teachers' Institute (Federal Republic of Nigeria, FRN, 2013). The goals of Tertiary Education include to contribute to national development through high level manpower training; provide accessible and affordable quality learning opportunities in formal and informal education in response to the needs and interests of all Nigerians; provide high quality career counseling and lifelong learning programmes that prepare students with the knowledge and skills for self-reliance and the world of work as well as reduce skill shortages through the production of skilled manpower relevant to the needs of the labour market. The government spelt out that tertiary educational institutions shall pursue these goals through quality teaching and learning; research and development; high standards in the quality of facilities, services and resources; provision of a more practical based curriculum relevant to the needs of the labour market as well as generation and dissemination of knowledge, skills and competencies that contribute to national and local economic goals which enable students to succeed in a knowledge-based economy.

Universities and Colleges of Education are part of the tertiary educational system in Nigeria and they play significant roles in the socio-economic and technological development of the country. Akpan (2014) stated that university education in Nigeria is expected to contribute to national development by intensifying and diversifying its programmes for the development of high manpower needs for the various sectors of the country's economy. The author pointed out that these laudable objectives could only be achieved through effective teaching, research and development in the various courses offered in the universities, including Technical Education or Industrial Technology Education.

According to the Federal Republic of Nigeria (FRN, 2013), the specific goals of Technology Education at the tertiary education level in Nigeria, include, among others, to: (i) Provide courses of instruction and training in engineering, other technologies, applied science, business and management, leading to the production of trained manpower; (ii) provide the technical knowledge and skills necessary for agricultural, industrial, commercial, and economic development of Nigeria; (iii) give training that impart the necessary skills for the production of technicians, technologists and other skilled personnel who shall be enterprising and self-reliant; (iv) train people who can apply scientific knowledge to solve environmental problems for the convenience of man; and (v) give exposure on professional studies in the technologies. Similarly, the National Universities Commission (NUC, 2014) stated that the objectives of Technical Education and Industrial Technology Education programmes are to: (1). enable students to acquire the various concepts, principles, theories laws and conceptional schemes of their relevant subjects; (2). enable students to acquire necessary teaching and practical skills and other aspects of methodology of teaching their subjects; (3). help students to become effective classroom teachers; (4). expose students to industrial applications of their subjects; (5). develop necessary laboratory skills.

In a nutshell, Technical Education is primarily aimed at skill acquisition. Okorie (2001) defined skill as the manual dexterity through repetitive performance of an operation. It is expertness, practiced ability, dexterity of tact. It is a well established habit of doing things by the people. Skill acquisition therefore is the process by which individuals are expected to learn and continuously practice in particular task till the learner becomes proficient in the operation and can perform them when required (Ogbuzuru, 2011). The author added that skill acquisition can also be seen as the ability to do or perform an activity that is related to some meaningful exercise, work or job. Okorie (2001) noted that vocational skills are acquired when procedural instructions are matched with performance activities.

There are several factors that could affect vocational skills acquisition by students. According to Ogbuzuru (2011), Achieng (2012) and Idoko (2014), these include the curriculum, personnel, facilities as well as the teaching and evaluation strategies used. This study is concerned with identifying strategies for enhancing vocational skill acquisition by students in two broad areas namely curriculum-related strategies and teaching and evaluation strategies.

A curriculum simply refers to all the experiences provided by the school which are desired to foster students' learning. It is a systematic group of courses or sequence of subjects required for graduation or certification in a major field of study. The curriculum can further be seen as the sum total of all the experiences students undergo both within and outside the school to develop their tastes and a balanced sense of values. According to Akaninwor (2001), it is the means by which the school attempts to prepare people who will, hopefully, make progress in the process of nation building. The author noted that the level of development in a country is an offshoot of the nature of the educational programmes prevailing there. This implies that the technological objectives of a nation are usually rooted in the type of curriculum used in educational programmes of the country. Auta (2017) stated that the content of the Technical Education curriculum is expected to provide deep coverage of important areas

of knowledge that stress skill development as well as knowledge acquisition. However, if the curriculum content is deficient of key skill areas, it may not be possible for students to acquire sufficient practical skills for the much desired self reliance.

It is worthy to note that the curriculum of the NCE and degree programmes in Technical Education in Nigerian universities and Colleges of Education is structured in such a way that all students are made to offer all the courses listed in the first and second years. In the third year, there are at least three options from which students may choose any one to specialize in. These include Automobile/Metalwork Technology (or Mechanical Technology), Electrical/Electronics Technology and Woodwork/Building Technology. The curriculum of Technical Education programmes at the tertiary education level consists of four main components, viz: general studies courses, education courses, technical courses, and Supervised Industrial Work Experience Scheme (SIWES) /teaching practice. The SIWES and teaching practice exercises are meant to provide the students with ample opportunities to develop skills necessary for the world of work and to enable them perform effectively as professional teachers in their areas of specialisation.

The teaching method and evaluation strategies used might also influence vocational skills acquisition in Technical Education. Udofia, Ekpo, Nsa and Akpan (2012) posited that the acquisition of a life-long or employable skills calls for effective and efficient teaching methods and the utilization of improved and standard instructional facilities, equipment, machines, tools and infrastructure, to ensure the production of desired quality of Vocational Technical graduates with enterprising skills. In agreement with Udofia *et al*, Audu, Kamin, Musta'amal and Bin-Saud (2014) stated that the curriculum of Technical education and other vocational education courses is very practical in nature and should be taught through methods that make best use of the active participation of the learners.

It has been established that acquisition of vocational skills by students can be influenced by several factors such as the curriculum, personnel, facilities as well as the teaching and evaluation strategies used. Many scholars have identified these factors as challenges influencing acquisition of vocational skills by Technical Education students. However, no studies have identified the specific strategies for enhancing the acquisition of vocational skills among Technical Education students in the tertiary institutions in Akwa Ibom State. In consideration of the increasing demand for skilled Technical/ Industrial Technology Education graduates for facilitating the technological and industrial development of Nigeria, there is need to identify specific strategies for enhancing vocational skills acquisition among Technical Education students in tertiary institutions in Akwa Ibom State, Nigeria. It is against this background that this study becomes imperative.

Statement of the Problem

Technical/ Industrial Technology Education is one of the skill oriented courses offered in Nigerian tertiary institutions whose graduates are expected to acquire vocational skills in order to become self-reliant economically by being self employed or set up their own businesses after graduation. It has however been observed that the objectives of Technical Education/ Industrial Technology Education programmes in many Nigerian tertiary

institutions, including those in Akwa Ibom state seem not to have been achieved over the years. Instead of being employed in the public or private sector or becoming self reliant economically by setting up their own businesses in the various occupational areas they were trained, many graduates of Technical Education have turned out to what is popularly known today as “KEKE” operators while others become hawkers in cities. This might be an indication that they did not acquire sufficient vocational skills during their training in the tertiary institutions.

Many scholars have blamed the perceived non acquisition of vocational skills by Technical Education students in Nigerian tertiary institutions on several factors such as inadequate curriculum content, inadequate facilities, more general/education courses and lesser number of technical courses, poor quality of teachers as well as the use of poor teaching methods and evaluation strategies. However, no studies have sought to identify the specific strategies for enhancing the acquisition of vocational skills among Technical Education students in tertiary institutions in Akwa Ibom State. This is the problem to which this study is addressed.

Purpose of the Study: The major purpose of this study was to determine the strategies for enhancing vocational skills acquisition among Technical Education students in tertiary institutions in Akwa Ibom State, Nigeria. Specifically; the study sought to determine;

1. Curriculum-related strategies for enhancing vocational skills acquisition among Technical Education students in the tertiary institutions in Akwa Ibom State
2. Teaching and evaluation strategies for enhancing vocational skills acquisition among Technical Education students in the tertiary institutions in Akwa Ibom State

Research Questions: The following research questions guided the study:

1. What are the curriculum-related strategies for enhancing vocational skills acquisition among Technical Education students in tertiary institutions in Akwa Ibom State?
2. What are the teaching and evaluation strategies for enhancing vocational skills acquisition among Technical Education students in the tertiary institutions in Akwa Ibom State?

Null Hypotheses: The following null hypotheses were formulated and tested at 0.05 level of significance:

- Ho₁: There is no significant difference between the mean responses of Technical Education students from University of Uyo and those from College of Education, Afaha Nsit on the curriculum-related strategies for enhancing their vocational skills acquisition.
- Ho₂: There is no significant difference between the mean responses of Technical Education students from University of Uyo and those from College of Education, Afaha Nsit on the teaching and evaluation strategies for enhancing their vocational skills acquisition.

Methodology

The study used descriptive survey research design. This research design was considered appropriate for this study because, according to Cohen, Manion and Morrison (2011), survey research design enable the researcher to study a sample of the population and later generalize the findings to the entire population. The study was conducted in Akwa Ibom State, Nigeria. There are two tertiary institutions in Akwa Ibom State that offer Technical Education programmes. These are the University of Uyo and College of Education, Afaha Nsit. The choice of this study area is based on the fact that there are several graduates of Technical Education from these tertiary institutions who appear to be lacking in practical skills in their various areas of specialization. This situation has compelled the researcher to conduct this study in order to identify the strategies for enhancing vocational skill acquisition among the Technical Education students.

The population of the study comprised of 167 persons made up of all the 101 registered full time undergraduate Technical Education students (year 1-4) in the Department of Industrial Technology Education, Faculty of Education, University of Uyo in the 2019/2020 academic session (University of Uyo Portal, March, 2020) as well as all the 66 registered full time NCE and undergraduate students (year 1-3) in the Department of Technical Education, College of Education, Afaha Nsit in the 2019/2020 academic session (Field Survey, 2020). The sample for this study comprised 114 respondents made up of 69 students from the University of Uyo and 45 students from College of Education, Afaha Nsit. The sample size was determined using Krejcie and Morgan's (1970) sampling model while the sample was selected using proportionate sampling technique.

An instrument titled "Strategies for Enhancing Vocational Skills Acquisition Among Technical Education Students in Akwa Ibom State Tertiary Institutions Questionnaire" was developed and used for data collection in the study. The instrument contained 11 items which were structured on the Likert scale as follows: Strongly agreed = 5 points, agreed = 4 points, undecided = 3 points, disagreed = 2 and strongly disagreed = 1 point. The instrument which was validated by three lecturers from the Department of Industrial Technology Education, University of Uyo has an internal consistency reliability index of 0.87 obtained using Cronbach Alpha reliability analysis. One hundred and twelve out of 114 copies of the questionnaire administered were correctly completed and returned, representing 98.25% return rate. The Mean with standard deviation was used for answering the research questions while the null hypotheses were tested with the independent t-test statistic at 0.05 probability level.

Results

Research Question 1: What are the curriculum-related strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State Tertiary Institutions?

Table 1: Mean Responses on Curriculum-related strategies for enhancing Vocational skills acquisition among Technical Education students ($n = 112$)

S/N	Curriculum Related Strategies	\bar{X}	SD	Remarks
1	Integrating more skill oriented topics into each course content	3.31	0.50	Agreed
2.	Allowing students to undergo one full year industrial attachment for practical skill acquisition	2.96	0.61	Agreed
3	Separating the time for SIWES from teaching practice	3.25	0.53	Agreed
4	Reducing the number of education courses and including more technical courses	3.21	0.47	Agreed
5	Increasing the duration of degree course in Technical Education to five years	2.23	0.78	Disagreed
Cluster Mean		2.99		Agreed

The result in Table 1 shows that the mean responses of four out of the five items exceed the cut off point of 3.00 while one item have mean response less than 3.00. With a cluster mean of 2.99, this result indicates that majority of the respondents used in the study agreed that the four listed items are curriculum-related strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State Tertiary Institutions while they disagreed on one item (item 5).

Research Question 2: What are the Teaching / Evaluation strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State Tertiary Institutions?

Table 2: Mean Responses of Students on Teaching / Evaluation strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State Tertiary Institutions ($n = 112$)

S/n	Items	\bar{X}	SD	Remarks
1	Organising field trips to related industries every month for better understanding of some concepts	2.86	0.51	Agreed
2	Inviting experienced resource persons from industries to deliver practical lessons on new innovations to students	3.08	0.61	Agreed
3	Providing practical manuals to guide students during practical training	2.79	0.57	Agreed
4	Allocating more time for practical training than for theory	3.50	0.68	Agreed
5	Assigning more marks to practical work than theory	3.59	0.84	Agreed
Cluster Mean		3.16		Agreed

The result in Table 2 shows that the mean responses of students on all the five items as well as the cluster mean (3.16) exceed the cutoff point of 3.00. This result indicates that majority of the respondents used in the study agreed that all the listed items are Teaching / Evaluation strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State Tertiary Institutions.

Null Hypothesis 1: There is no significant difference between the mean responses of Technical Education students from University of Uyo and those from College of Education, Afaha Nsit on the curriculum-related strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State Tertiary Institutions

Table 3: t-test analysis of the Mean Responses of students from University of Uyo and College of Education, Afaha Nsit on Curriculum-related strategies for enhancing vocational skills acquisition among Technical Education students ($n_1=67$; $n_2=45$)

S/N	A: Curriculum Related Strategies	\bar{X}_1	\bar{X}_2	t	p	Decision
1	Including more skill oriented topics in each course content	3.30	3.31	-0.26	0.78	NS
2	Allowing students to undergo one year industrial attachment for practical skill acquisition	2.96	2.98	-0.36	0.74	NS
3	Separating the time for SIWES from teaching practice	3.28	3.22	1.71	0.19	NS
4	Reducing the number of education courses and including more technical courses	3.20	3.22	-0.65	0.32	NS
5	Increasing the duration of Technical Education courses to five years	2.24	2.20	1.05	0.33	NS
Cluster Mean		3.00	2.99	1.05	0.76	NS

* NS = Not Significant at 0.05 level of significance; Df = 110

The summary of the t-test analysis presented in Table 3 shows that the observed level of significance for all the five items are greater than the stipulated probability level of 0.05. Based on the cluster mean, the observed level of significance is 0.76 which is also greater than 0.05. On this basis, the null hypothesis is retained signifying that there is no significant difference between the mean responses of Technical Education students from University of Uyo and those from College of Education, Afaha Nsit on the curriculum-related strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State tertiary institutions.

Null Hypothesis 2: There is no significant difference between the mean responses of Technical Education students from University of Uyo and those from College of

Education, Afaha Nsit on the teaching/ evaluation strategies for enhancing vocational skills acquisition among

Technical Education students in Akwa Ibom State tertiary institutions

Table 4: t-test analysis of the Mean Responses of Students of University of Uyo and College of Education, Afaha Nsit on Teaching/ Evaluation strategies for enhancing vocational skills acquisition among Technical Education students ($n_1=67$; $n_2 =45$)

S/n	Items	\bar{X}_1	\bar{X}_2	T	p	Decision
1	Organising field trips to related industries every month for better understanding of some concepts	2.86	2.87	-0.47	0.34	NS
2	Inviting experienced resource persons from industries to deliver practical lessons on new innovations to students	3.06	3.11	-1.23	0.25	NS
3	Providing practical manuals to guide students during practical training	2.80	2.80	1.55	0.36	NS
4	Allocating more time for practical training than for theory	3.50	3.48	0.26	0.77	NS
5	Assigning more marks to practical work than theory	3.61	3.58	0.37	0.65	NS
	Cluster Mean	3.17	3.15	0.47	0.72	NS

* NS = Not Significant at 0.05 level of significance; $Df = 110$

The result of the t-test analysis presented in Table 4 shows that the observed level of significance for all the five items are greater than the stipulated probability level of 0.05. Based on the cluster mean, the observed level of significance is 0.47 which is greater than 0.05. On this basis, the null hypothesis is retained signifying that there is no significant difference between the mean responses of Technical Education students from University of Uyo and College of Education, Afaha Nsit on the Teaching/ evaluation strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State Tertiary Institutions

Discussion of the Findings

The study found four curriculum-related strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State tertiary institutions. These were: including more skill oriented topics in each course content; allowing students to undergo one full year industrial attachment for practical skill acquisition; separating the time for SIWES from teaching practice and reducing the number of education courses and including more technical courses. Testing of the corresponding null hypothesis confirmed that there was no significant difference between the mean responses of Technical Education students from University of Uyo and those from College of Education, Afaha Nsit on the curriculum-related

strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State tertiary institutions. This finding is very obvious as it clearly underscore the fact that without a skill oriented curriculum, students cannot be taught well enough to acquire a reasonable level of vocational skills.

This finding supports the views of Auta (2017) who noted that the curriculum of the Technical Education programme should provide an in-depth knowledge, competency, and attitudes to be acquired by the students. The finding also lend credence to the assertion by Tubsree and Bunsong (2013) that the curriculum of Vocational and Technical Education need to be designed in such a manner as to facilitate the development of the individuals' full potentialities and abilities. They added that the curriculum must directly help students to develop a broad range of knowledge, skills, attitudes and values that are clearly contribute to the graduate's employability.

The study also found five teaching /evaluation strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State tertiary institutions. These include: organising field trips to related industries every month for better understanding of some concepts; inviting experienced resource persons from industries to deliver practical lessons on new innovations to students; providing practical manuals to guide students during practical training; allocating more time for practical training than for theory and assigning more marks to practical work than theory. Testing of the corresponding null hypothesis confirmed that there was no significant difference between the mean responses of Technical Education students from University of Uyo and those from College of Education, Afaha Nsit on the teaching/ evaluation strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State tertiary institutions.

The finding of this study supports the views of Darling-Hammond and Brandsford (2005) who maintained that the effectiveness of Technical and Vocational Education and Training (TVET) depends largely on the quality of the teacher and the instructional techniques used in lesson delivery. The finding also supports the assertion by Audu, Kamin, Aede and Saud (2014) that all technical courses, irrespective of their levels are aimed at acquisition of practical skills by the learners hence its teaching methods must be structured and made to stress practical activities. The authors stressed that science and technology curriculum, including vocational education, is very practical in nature and should be taught through methods that make best use of the active participation of the learners. The authors further noted that the process of learning will be more effective when the students are being exposed to the actual working condition by practically applying their knowledge as well as the skills that they had learned.

Conclusion: Based on the findings of this study, it is concluded that there is urgent need for implementing strategies for enhancing vocational skills acquisition among Technical Education students in Akwa Ibom State tertiary institutions. This could be achieved through the adoption of curriculum-related strategies as well as teaching /evaluation strategies found in this study.

Recommendations: The following recommendations are made by the researchers:

1. The curriculum content of the NCE and degree programmes in Technical Education should be reviewed to include more technical courses and lesser number of general/education courses in order to enhance vocational skills acquisition among the students
2. Technical Education lecturers in the University of Uyo and College of Education, Afaha Nsit should henceforth adopt teaching methods and evaluation strategies that would promote students acquisition of vocational skill in their various areas.

References

- Achieng, N. R. (2012). Factors affecting acquisition of vocational skills among youth learners in Maranda Division Siaya County, Kenya. A master of Education project, University of Nairobi, Kenya
- Akaninwor, G. I. K. (2001). Towards effective curriculum development in Vocational/technical education for sustainable poverty Alleviation in Nigeria. *Journal of National Association of Teachers of Technology (JONATT)*, 1 (3), 14-24
- Akaninwor, G. I. K. (2010). *Industrial Education And Technology In Nigeria: Development and Current Trends*. Port Harcourt: Odessa Educational Books (Nig) publishers
- Akpan, C. P. (2014). ICT Competence and Lecturers' Job Efficacy in Universities in Cross River State, Nigeria. *International Journal of Humanities and Social Science* 4 (2), 259-267
- Audu, R. Kamin, Y. B.; Musta'amal, H. B and Bin-Saud, M. S. (2014). Assessment of the Teaching Methods that Influence the Acquisition of Practical Skills. *Asian Social Science*, 10 (21), 35-42
- Auta, M. A. (2017). Adequacy of Technology Education Programme in Nigerian Universities in Compliance with the Benchmark for Academic Standards (BMAS). *Journal of Educational System*, 1(1), 1-5
- Cohen, L, Manion, L. and Morrison, K. (2011). *Research Methods in Education, 7th Ed*. New York: Routledge
- Darling-Hammond, L., and Brandford, J. (Eds) (2005). *Preparing teachers for a changing world: What teachers should learn to be able to do*. San Francisco: Jossey-Bass Ltd.
- Federal Government of Nigeria (2013). *National Policy on Education, 6th Ed* Lagos: NERDC press
- Idoko, C. U. (2014). Skill acquisition and youth empowerment in Nigeria. *Global*



- National Universities Commission (NUC) (2014). Benchmark minimum academic standards for undergraduate programmes in Nigerian universities (Revised). Retrieved on 10/2/19 from www.nuc.edu.ng
- Ogwo, B. A. and Oranu, R. N. (2006). *Methodology in formal and non-formal technical/vocational education*. Enugu: Ijejas Printers and Publishers Company
- Okorie, J. U. (2001). *Vocational industrial Education*. Bauchi: League of Researchers in Nigeria
- Ogbuzuru, R. E. (2011). Strategies for improving skill acquisition of Building technology students in Technical colleges in Ebonyi State. M. Ed project, University of Nigeria, Nsukka
- Tubsree, C. and Bunsong, S. (2013). Curriculum Development of vocational teacher education within the context of ASEAN integration process. Retrieved on 14/6/18 from www.tvet-online.asia
- Udofia, A. E.; Ekpo, A. B.; Nsa, E. O. and Akpan, E. O. (2012). Instructional variables and students' acquisition of employable skills in vocational education in Nigerian technical colleges. *Scholarly Journal of Education*, 1 (2), 13-19