



Availability and Utilization of Resources for the Implementation of Vocational Education Programmes in Technical Colleges in Rivers State

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ABSTRACT

The study examines the availability and utilization of resources for the implementation of vocational education programmes in technical colleges in Rivers State. Two research questions were answered in the study with two corresponding null hypotheses that were formulated and tested at 0.05 level of significance. The study adopted the descriptive research survey design. The population of the study comprised of all the 74 teachers and 1682 students in the four technical colleges in Rivers State. A sample size of 386 respondents (74 Teachers and 312 students) was used for the study. Proportionate stratified sampling technique was adopted to determine number of students sampled from each institution. The instrument for the data collection was a self-constructed questionnaire titled “Questionnaire on Availability and Utilization of Resources for Vocational Education Programmes Implementation in Technical Colleges” (QAUVEPITC) design in a checklist pattern. A reliability coefficient of 0.89 was established for the instrument using Pearson Product Moment Correlation (PPMC) method. Frequency was used to answer the research questions while chi-square was used to test the null hypotheses. The finding of the study revealed that teachers are available and qualified for the implementation of vocational education programmes in Technical Colleges in Rivers State. The study found that human and material resources such as ICT and recreational facilities and personal protective equipment (PPE) are available for the implementation of vocational education programmes in Technical Colleges in Rivers State. Based on the findings of the study, it was recommended among others that there should be recruitment of more teachers, technicians and administrative staff for effective implementation of vocational education programmes in Technical Colleges in Rivers State.

Keynote: Availability, Utilization, Resources, Implementation, Vocational, Education

INTRODUCTION

Teaching is a profession, and all who desire to belong to the profession should be well grounded in the art of teaching. Teachers need to be conversant with the philosophy guiding the educational enterprise of the country in which they intend to practice, and need to have mastery of the subjects in which they are trained and specialized in. A teacher is expected to plan his lesson(s) ahead of class time; it is during the planning stage that he will take care of the type of behaviours relevant to his teaching task in view of his instructional objectives. In carrying out this task, available resources that need to be utilized are determined especially in technical colleges where teaching and learning are practically done.

Education can be seen as most vital instrument needed for socio-economic development of any nation. The Federal Republic of Nigeria in its’ national policy on education (Federal Republic of Nigeria, 2004) stressed that education is fundamentally relevant, practiced and geared towards the acquisition of appropriate vocational skills and the development of competencies. It helps the individual live and contribute to the development of the society. It is important to note that one of the national educational

goals is acquisition of appropriate skill and development of mental, physical and social abilities and competencies as equipment for individual to live and contribute to the development of the society. The training of the skill oriented and competent individuals in the Nigerian educational sector has raised concerns on the inadequate availability of resources for the training of our youths as future pillars for national development. Okoye and Okwelle (2017) observed that it has become present everywhere in Nigeria to see graduates from various school of learning roaming the streets for lack of employment and the extent that the usual slogan of lack of employment has moved to “employability” Because there is deficiency in availability and utilization of resources for implementation of vocational education programs in technical colleges in Nigeria.

It is necessary to note that successful socio-economic livelihood of the people depending on the available educational resources to provide skilled and experience growing youth population. Vocational education therefore constitutes an essential tool in developing a country’s technology. Before the introduction of vocational education in secondary schools in Nigeria in 1982, vocational programmes were offered in the following institutions in Rivers State: Comprehensive Secondary School, Private Commercial Institutes (unaided), Trade Centres (now Technical Colleges), Penal Institutions (Prisons) and Craft Development Centres. In addition to these skills acquisition centres, the Skills Acquisition Authority at Port Harcourt, and Local Government Industrial Units in the Local Government Areas were established and functioning. Contrary to expectations, vocational education programmes have not been effectively and efficiently carried out over the years. The Federal Government of Nigeria established the National Board for Technical Education (NBTE). The NBTE overseas issues regarding the accreditation of Technical and Vocational Educational programmes for technical colleges, mono-technics, polytechnics, and other vocational institutions. Also, to maintain standard, the NBTE sets minimum standard for human and material resources, and these standards also known as benchmark that must be met before any TVE programmes can be run in technical colleges and other vocational institutions. However, despite these standard set by NBTE, the performance of students in National Business and Technical Examination Board (NABTEB) examination is poor. According to Aina in Oranu (2009), performance at the National Technical Certificate (NTC) /National Business Certificate (NBC) examinations taken in technical colleges in 1999 revealed very disturbing statistics attributable to complete neglect, poor funding, and inadequacy of resources. Poor management of facilities poorly implemented or not implemented at all. Government is good in making policies, but the greatest barrier is the implementation. Some of the current challenges faced by vocational education derived from the fact that Administrators and Chief Executive Officers of educational institutions are likely to be general educators not specialists in vocational or technical education (Oranu, 2009). These general educators often divert funds meant for vocational technical education equipment and facilities to other sectors more in line with their interests. Oranu (2009) thus recommends, that policies concerning vocational and technical education programmes be left to those in the field of vocational and technical education to formulate and implement thereby affording the provision of resources and facilities.

According to Ajayi (2014), facilities like classroom, workshops, laboratories, textbooks, equipment and materials are grossly inadequate in our Technical Colleges in Nigeria. The reason why the facilities are not there is partly due to high cost of vocational education equipment and also, high inflation rate in Nigerian economy. Inadequate educational facilities hinder effective training of students from acquiring skills needed for them to contribute their own quota in building the society for national development (Nwabueze, 2011). It is therefore, very necessary that both material and human resources should be made available in schools and these resources should be effectively utilized and maintained to achieve functional and effective implementation.

Materials resources provision in schools has been observed as a potential factor towards proper and adequate implementation of vocational education programs in technical colleges. The importance of teaching and learning with provision of adequate infrastructural facilities cannot be over emphasized. Facilities constitute a strategic factor in organisational functioning. This is so because they determine to a very large extent the smooth functioning of any social organisation or system including education. It was

further stated that their availability, adequate utilization and relevance influence efficiency and high productivity. The wealth of a nation or society could determine the quality of education in the land, emphasizing that a society that is wealthy will establish good schools with qualified teachers, good learning infrastructures will enable, students learn with ease thus bringing about good academic activities. Juiyeoba and Atanda (2003) posited that infrastructural facilities have things which enable a skilled teacher to achieve a level of instructional effectiveness. Availability of material resource in right quantity suitable in education provision.

Human Resources in education is the key input in the process of development. Human resource constitutes the life-wire of every organisation. It is the human agent that participates in the day, today activities and functions of the organisation. Manpower requirements in educational institute entail the needed qualifications and status of staff in the system. Human requirement for quality implementation of vocational programmes involves the acquisition of manpower resources required to sustain the effective implementation of vocational education programs in technical colleges. Adequacy of human resources, therefore, refers to adequate quality and quantity of teaching or instructional staff.

The development of human and material resources has been the focus of concern of recent, towards the development of a nation. This is due to the fact that the growth of tangible capital stock of a nation depends on human capital development. Nonetheless, Nigeria government ability to invest in human capital, is deep rooted in extreme corruption that has engulfed the nation, a case that has been described as the paradox of plenty (Library Congress, Federal Research Division, 2006). This simply means that, she co- exists with vast natural resources, wealth and extreme poverty. This situation is evidenced in all aspects of the economy including education. Provision of vocational education across communities has helped to mobilize under-employed people in the areas of labour and knowledge. It hopes to offer a means towards the eradication of unemployment and poverty reduction in our body polities.

In other words, this policy process points to the whole effect towards positioning vocational development, that could better the life of the majority of under-privilege people of society. The vocational education offered behind globalization has not only opened modern channels of easy communication for the engagement of Nigerian youth, but has also revolutionized education, and by extension knowledge, through the process of global integration and communication in the past few years, access to people, job security, global solidarity and information anywhere in this century has become practically quicker, cheaper and easier, in other words, in spite of the acclaimed global benefits of the era, the distribution of global knowledge and wealth has not been fair, the remedy to this situation in our country is the implementation of the vocational education at all levels of education.

Okoye and Okwelle (2017) Observed that graduates who do not secure employment are not just employable. Most of them do not possess skills necessary for effective performance in the job arena. This is due to the non-availability of these resources which may have renders the students redundant and ineffective or non-functional. Implementation of vocational education at the technical school level will help to prepare the student for gainful employment as skilled worker in a recognized occupation. Okwelle (2013) opined that vocational education, should aimed at developing the three domain of learning which is affective, psychomotor and cognitive domain with emphasis on practical, which prepare the individual in readiness for entry into the world of work. It has become imperative that effective implementation of vocational education could help curb the menace of unemployment in society. Where skills are properly acquired, the graduates will not only seek for employment but will also become employers of labour. This will invariably make the youth attain economic or financial freedom and also pave way for national development.

Despite the import contribution of vocational development, it is plagued with problems which have brought its present low esteem. Adekunle (2014) identified many of the problems facing vocational education at technical school level as follows:

- i. Derogatory government policies
- ii. Gross inadequacy of available resources such as training materials, tools and poor equipment, poor input which will yield poor output.

- iii. Poor teacher preparation and welfare scheme.
- iv. Poor preparation and implementation of vocational educational programme.
- v. Poor funding of vocational education at technical school's level.
- vi. Low public esteem of vocational education trainees and graduates, the societal attitude towards vocational education is negative.

Vocational education may not get due attention, in a general list due to bias. It will also suffer in terms of admission, staffing, curriculum, facilities and evaluation. However, teaching of vocational subjects in Technical Colleges, in most areas is devoid of skill acquisition, because of lack of qualified teachers and equipment for practical's. This means that for students in technical Colleges to be productive and self-reliant, they have to acquire basic skills that will enable them to function effectively in the society. This method will minimize certificate forgery and examination malpractices that have become common phenomena in the society. The development of human and material resources has been the focus of concern of recent technology, toward the development of any nation.

Statement of Problem

For any nation to excel technologically there is the need for efficient provision and utilization of human and material resources in schools. Nigeria as a country, in its quest to become the giant in the technology industry, needs reposition her policy guideline to reflect the current realities in the global world. Vocational subjects offered in schools has not opened up modern channels of easy communication for the engagement of the Nigeria youth but has also revolutionized education through the process of global integration and communication in the past few years (Ahmed, 2003). Despite the benefits, the acquisition of vocational skills seems to have some inherent constraint in Technical Colleges due to poor provision, utilization and maintenance of resources as well as the effective implementation of the programme.

According to Babatope (2010), students on completion of their vocational education still go out to enrol in open apprenticeship programmes because they could not get enough practical vocational knowledge in their schools, due to inadequate equipment and improper teaching. Consequently, those deficient in the appropriate skills eventually became social and economic liabilities resulting in unemployment, poverty, corruption, smuggling and youth restiveness (Edokpolor & Dumbiri, 2019). The teaming youths are consequently compelled to be instruments of social vices including cultism and militancy. These problems could be avoided if only certain things were put in place for effective vocational teaching and learning when these youths are in schools. Common observation in the school system shows that teachers manage overcrowded classes of students. The question is that, are the resources enough to be utilized by student? Meanwhile, each time there is poor academic performance of students, the blame is usually shifted to the teachers, the teachers on their part are beset with numerous problems which affect their job such problems include high student –teacher ratio, poor working conditions, inadequate physical and manpower resources, inadequate funding among others. The researcher has also observed with dismay that inadequate instructional materials and poor utilization of physical and workshop facilities available affects the implementation of technical vocational programmes in technical colleges in Rivers State. This implies that no matter how laudable an education policy maybe, if the number of resources needed to carry out the programme is inadequate, the programme will suffer serious setbacks. This present study aims to determine the availability and utilization of resources for the implementation of vocational education programmes in technical colleges in Rivers State.

Purpose of the Study

The aim of the study was to examine the availability and utilization of resources for the implementation of vocational education programmes in technical colleges in Rivers State. Specifically, the study sought to:

1. Find out the availability of human resources for the implementation of vocational education programmes in Technical Colleges in Rivers State.
2. Find out the availability of material resources for the implementation of vocational education programmes in Technical Colleges in Rivers State.

Research Questions

The following questions guided the study.

1. How available are human resources for the implementation of vocational education programmes in Technical Colleges in Rivers State?
2. How available are material resources for the implementation of vocational education programmes in Technical Colleges in Rivers State?

Hypotheses

For the purpose of this study, the following null hypotheses were formulated and tested at 0.05 level of significance

1. There is no significant difference in the mean scores of teachers and students on how available are human resources for the implementation of vocational education programmes in Technical Colleges in Rivers State.
2. There is no significant difference in the mean scores of teachers and students on how available are material resources for the implementation of vocational education programmes in Technical Colleges in Rivers State.

METHODOLOGY

The study adopted the descriptive research survey design. The present study is a descriptive survey research because the researcher collects data from a large sample of teachers and workshop instructors in technical colleges in Rivers State and describes how availability and utilization of resources enhance the implementation of vocational education programmes in Technical Colleges in Rivers State.

The population of the study comprised of all the teachers and students in the four technical colleges in Rivers State. As at the time of this study, Rivers State technical colleges have 74 teachers and 1682 students (Source: NBTE Unit, Rivers State Ministry of Education, 2022). A sample size of 386 respondents (74 Teachers and 312 students) was used for the study. Teachers' population was sample due to its small size while Taro Yamen sample size determination was used for the students' sample. This gives a sample of 312 students. Proportionate stratified sampling technique was adopted to determine number of students sampled from each institution. Hence, a sample size of 386 respondents was obtained and used for the study.

The instrument for the data collection was a self-constructed questionnaire titled "Questionnaire on Availability and Utilization of Resources for Vocational Education Programmes Implementation in Technical Colleges" (QAURVEPITC). The instrument (QAURVEPITC) was divided into different sections based on the purpose of the study and was given to both teachers and students in technical colleges in Rivers State. The instrument was validated by experts in the faculty Education in Rivers State University, Port Harcourt. They vetted the instrument in terms of relevancy, appropriateness, and language level. Their recommendations and corrections were incorporated into the final version of the instrument before administration.

The reliability of the instrument "Questionnaire on Availability and Utilization of Resources for Vocational Education Programmes Implementation in Technical Colleges" (QAURVEPITC) was established through test-retest method for measure of stability of the instrument. Simple random sampling technique was used to draw 9 teachers from technical colleges in Akwa-Ibom State and 21 students who were part of the population but not part of the sample from technical colleges in Rivers State. Copies of the instrument was administered to these 9 teachers and 21 students. After an interval of two weeks, the same instrument was re-administered to the same group. The initial (test) and the re-test scores of the sample was correlated using Pearson Product Moment Correlation (PPMC) method. A reliability coefficient of 0.89 was established for the instrument.

In the administration of the instrument, the researcher administered copies of the instrument to the respondents (teachers and students in all the technical colleges in Rivers State) directly and with the help of two persons who were instructed by the researcher as research assistants. Completed copies of the instrument were collected and used for analysis. Out of 74 and 312 copies of the instrument that were administered for teachers

and students, only 67 and 293 copies were completely filled and retrieved which was used for analysis. This give 97% and 94% retrieval. Research questions were analysed with frequency count while the hypotheses were tested at 0.05 level of significance using Chi-square. If the calculated value of Chi-square (X^2) is less than the critical value of Chi-square (X^2), the hypothesis was accepted but if the calculated value of Chi-square (X^2) is greater than or equal to the critical value of Chi-square (X^2), the hypothesis was rejected.

RESULTS

Research Question 1: *How available are human resources for the implementation of vocational education programmes in Technical Colleges in Rivers State?*

Table 1: Frequency Response of the Respondents on Availability of Human Resources for Implementation of Vocational Education Programmes in Technical Colleges.

S/N	Human Resources Available for Implementation Are:		Avail	Not Avail	Total
1	Teachers	Teachers	58	9	67
		Students	273	20	293
		Total	331	29	360
2	Qualified computer analyst	Teachers	49	18	67
		Students	238	55	293
		Total	287	73	360
3	Qualified number of instructors	Teachers	52	15	67
		Students	253	40	293
		Total	305	55	360
4	Knowledgeable teachers in content area	Teachers	57	10	67
		Students	237	56	293
		Total	294	66	360
5	Teachers are professionally registered	Teachers	60	7	67
		Students	247	46	293
		Total	307	53	360
6	Competent administrative staff	Teachers	53	14	67
		Students	236	57	293
		Total	289	71	360
7	Teachers with relevant teaching qualifications	Teachers	59	8	67
		Students	261	32	293
		Total	320	40	360
8	Teachers with teaching experience	Teachers	49	18	67
		Students	231	62	293
		Total	280	80	360
9	Competent workshop attendant	Teachers	63	4	67
		Students	276	17	293
		Total	339	21	360
10	Qualified and certified departmental librarian	Teachers	46	21	67
		Students	264	29	293
		Total	310	50	360
11	Mail runners are available	Teachers	46	21	67
		Students	260	33	293
		Total	306	54	360
12	Clerks and messengers are available	Teachers	57	10	67
		Students	276	17	293
		Total	333	27	360
Grand Total (Column/Row)			Avail	Not Avail	Total
		Teachers	649	155	804
		Students	3052	464	3516
		Total	3701	619	4320

Source: *Researcher's Field Result, 2022*

The result in Table 1 shows the response of the respondent's group (teachers and students) and their level of decision on a particular item. Items 1 to 12 with frequency count above half the number of respondents which implies that it was agreed by teachers and students as how available human resources are for the implementation of vocational education programmes in Technical Colleges in Rivers State. Result further shows that items 2 and 3 were disagree by respondents.

Research Question 2: *How available are material resources for the implementation of vocational education programmes in Technical Colleges in Rivers State?*

Data gathered to provide answer to this research question are analysed and presented in Table 4.2.

Table 2: Frequency Response of the Respondents on Availability of Material Resources for Implementation of Vocational Education Programmes in Technical Colleges

S/N	Material Resources Available for Implementation Are:		Avail	Not Avail	Total
13	Availability of computers and other ICT facilities.	Teachers	23	44	67
		Students	63	230	293
		Total	86	274	360
14	Availability of recreational facilities	Teachers	14	53	67
		Students	68	225	293
		Total	82	278	360
15	Tools and equipment are available	Teachers	62	5	67
		Students	273	20	293
		Total	335	25	360
16	Availability of personal protective equipment (PPE).	Teachers	56	11	67
		Students	276	17	293
		Total	332	28	360
17	classroom blocks are adequate in the schools	Teachers	57	10	67
		Students	246	47	293
		Total	303	57	360
18	Availability of subject's workshops and laboratory training equipment.	Teachers	60	7	67
		Students	268	25	293
		Total	328	32	360
19	Availability of Libraries with well-equipped with current texts/materials and e-library section.	Teachers	23	44	67
		Students	218	75	293
		Total	241	119	360
20	Internet service is available	Teachers	14	53	67
		Students	69	224	293
		Total	83	277	360
21	Availability of conducive model staff offices	Teachers	14	53	67
		Students	93	200	293
		Total	107	253	360
22	Consumable materials such as biro, papers, eraser, maker and pencil are available	Teachers	63	4	67
		Students	284	9	293
		Total	347	13	360
Grand Total (Column/Row)			Avail	Not Avail	Total
		Teachers	386	284	670
		Students	1858	1072	2930
		Total	2244	1356	3600

Source: *Researcher's Field Result, 2022*

The result in Table 2 shows the response of the respondent's group (teachers and students) and their level of decision on a particular item. Items 15, 16, 17, 18 and 22 with a frequency higher 50% were agreed by teachers and students as how available material resources are for the implementation of vocational education programmes in Technical Colleges in Rivers State. Result further shows that items 13, 14, 19, 20 and 21 were disagree by respondents.

Statistical Test of Hypotheses

Hypothesis 1

There is no significant difference in the mean scores of teachers and students on how available are human resources for the implementation of vocational education programmes in Technical Colleges in Rivers State.

Table 3: 2x2 Contingency Table Analysis on Availability of Human Resources for Implementation of Vocational Programmes in Technical Colleges in Rivers State

Categories	Available	Not-Available	Total
Teachers	649	155	804
Students	3052	464	3516
Total	3701	619	4320

Source: *Researcher's Field Result, 2022* Accept Ho if $X^2_{cal} \leq X^2_{crit}$; otherwise reject Ho

Since the calculated value of X^2 ($X^2_{cal} = 19.66$) is greater than the critical value of X^2 ($X^2_{crit} = 3.41$), the null hypothesis was rejected. This implies that there is a significant difference in the response scores of teachers and students on how available are human resources for the implementation of vocational education programmes in Technical Colleges in Rivers State.

Hypothesis 2

There is no significant difference in the mean scores of teachers and students on how available are material resources for the implementation of vocational education programmes in Technical Colleges in Rivers State.

Table 4: 2x2 Contingency Table Analysis on Availability of Material Resources for Implementation of Vocational Programmes in Technical Colleges in Rivers State

Categories	Available	Not-Available	Total
Teachers	386	284	670
Students	1858	1072	2930
Total	2244	1356	3600

Source: *Researcher's Field Result, 2022* Accept Ho if $X^2_{cal} \leq X^2_{crit}$; otherwise reject Ho

Since the calculated value of X^2 ($X^2_{cal} = 2.82$) is less than the critical value of X^2 ($X^2_{crit} = 3.41$), the null hypothesis was accepted. This implies that there is no significant difference in the response scores of teachers and students on how available are material resources for the implementation of vocational education programmes in Technical Colleges in Rivers State.

DISCUSSION OF FINDINGS

To achieve the purpose of this study, the researcher outlined six research questions and six hypotheses. The findings of the study are discussed below.

Availability of Human Resources for the Implementation of Vocational Education Programmes in Technical Colleges in Rivers State

Result from Table 4.1 revealed the availability of human resources for the implementation of vocational education programmes in Technical Colleges in Rivers State. Result from the study shows that vocational teachers are available for implementation of programmes, vocational education programmes have qualified number of computer analyst in each area of specialization, vocational programmes have qualified number of instructors in their area of specialization, Teachers of vocational education are

knowledgeable in their course contents, and teachers of vocational education are professional registered members among others. This finding of this study agrees with Akinfolarin, Ajayi, and Oloruntegbe (2012) and Okwori (2012) as reported that most of the required resources (teachers, instructors, technician and other staff) in vocational technical education were available. On the contrary, the findings of this study on availability of human resources in technical colleges is in discrepancy with those of Okorie (2000) as asserted that qualified technical instructors are becoming scarce in training institutions (technical colleges inclusive).

Availability of Material Resources for the Implementation of Vocational Education Programmes in Technical Colleges in Rivers State.

Result from Table 4.2 revealed the availability of material resources for the implementation of vocational education programmes in Technical Colleges in Rivers State. Result from the study revealed that vocational units have computers and other ICT facilities, recreational facilities are available in technical college, vocational unit have tools and equipment, vocational unit in technical college have personal protective equipment (PPE), libraries are well-equipped with current texts/materials and e-library section and vocational subject's workshops/laboratory have training equipment and materials such as wires, pliers, cables, ammeter among others. This result agrees with Osam (2013) and Okebukola (2012) that hand tools for the teaching and learning of trades in technical colleges in Rivers State is available.

CONCLUSION

Conclusively, the availability and utilization of resources are determinant for the implementation of vocational education programmes in technical colleges in Rivers State. It was revealed in the study that human resources such as qualified teachers are available and utilized their knowledge for course content delivery for the implementation of vocational education programmes in Technical Colleges in Rivers State. It was also found from the study that material resources like ICT and recreational facilities are available and are utilized for the implementation of vocational education programmes in Technical Colleges in Rivers State..

RECOMMENDATIONS

Base on the findings of this study, the following recommendations were made:

1. There should be recruitment of more teachers, technicians and administrative staff for effective implementation of vocational education programmes in technical colleges in Rivers State.
2. Modern material resources in area of ICT and safety facilities needs to be available for utilization in teaching and learning to enhance implementation of vocational education programmes in technical colleges in Rivers State.

REFERENCES

- Ahmed, T. M. (2003). Education and national development in Nigeria. *Journal of Studies in Education*, 10(2); 35 - 46.
- Ajayi, I. A. (2014). Motivation as correlate of teachers' job performance in Ogun State Secondary Schools. *UNAD Journal of Education*.2(3):155 - 162.
- Akinfolarin, C. A., Ajayi, I. A. & Oloruntegbe, K. O. (2012). An appraisal of resource utilization in vocational and technical education in selected colleges of education in South West Nigeria. *Journal of Standard Education*, 2(1), 41-45.
- Edokpolor, J. E. (2019). Resource Adequacy and Utilization for Teaching and Learning Effectiveness in Vocational Education Programmes in South-South Nigerian Universities. *Journal of Vocational Education Studies (JOVES)*, 2(1); 1 – 12.
- Federal Government of Nigeria (2004). *National Policy in Education*. Lagos: NERDC Press.
- Nwabueze, A. I. (2011). Management of Educational Resources for the Implementation of Vocational Subjects in Technical Colleges in South East, Nigeria. *International Journal of Scientific & Engineering Research*, 10(2); 831 – 855.

- Okebukola, P. (2012). *Education, human security and entrepreneurship*. 7th Convocation lecture of Delta State University, Abraka. University Printing Press.
- Okoye, K. R. E. & Okwelle, P. C. (2017). New Perspectives on Technical and Vocational Education and Training in Nigeria. *Journal of Education, Society and Behavioural Science*, 23(4); 1 – 9.
- Okwelle, P. C. (2013). Appraisal of Theoretical Models of Psychomotor Skills and Applications to Technical Vocational Education and Training (TVET) System in Nigeria. *Journal of Research and Development*, 1(6), 25 – 35.
- Okwori, R.O. (2012). An assessment of facilities used for teaching woodwork technology at federal college of education, Pankshin, Plateau State, Nigeria. *Universal Journal of Education and General Studies*, 1(5), 113-118.
- Oranu, R.N (2009). Vocational and technical education in Nigeria. In R.P.S. Pillai (Ed) *Strategies for producing new curriculum in West African*. Geneva: UNESCO International Bureau of Education. Retrieved 22nd June, 2018 from <http://www.ibe.unesco.org/curriculum/Africa.pdf>.
- Osam, I. (2013). Quantitative analysis of human and material resources in the implementation of vocational and technical education in Rivers State, Nigeria. *International Journal of Scientific Research in Education*, 6(1), 76-87.
- Wordu, H. (2007). Acquisition and utilization of information and communication technology in the administration of secondary schools in Rivers State, Nigeria. *International Journal of Advanced Education and Research*, 5(1); 13 – 18.