



Global Advanced Research Journal of Educational Research and Review (ISSN: 2315-5132) Vol. 4(5) pp. 072-080, May, 2015
Available online <http://garj.org/garjerr/index.htm>
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Full Length Research Paper

Challenges of Implementing Technical and Vocational Education and Training (TVET) Curriculum in Delta State Colleges of Education

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Accepted 28 May, 2015

This study is on challenges of implementing technical and vocational education and training curriculum in Delta State colleges of education. Five research questions guided the study, as well 5 hypotheses were formulated and tested at 0.05 level of significance. The survey research design was used, and the population of the study was 755 TVET students from Delta State colleges of education. However, 100 TVET students were randomly selected from college of education, Warri and Agbor respectively, making up a total of 200 respondents. Questionnaire was the instrument used for data collection which was validated by the three lecturers. Also, the reliability of the questionnaire was ascertained using Cronbach's Alpha correlation which yielded 0.89 coefficients. Data were collected by the researcher, and the mean and standard deviation were used to analysed data for the research questions, while z-test was used to test the hypotheses at 0.05 level of significance. The study revealed that the challenges to the implementation of TVET curriculum emanated from various factors such as government, school, students', and lecturers' factors. It was recommended amongst others that Delta State government should improve funding of TVET programmes in Delta State colleges of education.

Keywords: *Challenges, TVET, TVET Curriculum, College of Education and Delta State*

INTRODUCTION

Education is a general term which refers to an exercise that engages every one. It is a process of enabling individuals to live as useful and acceptable members of a society (Aigbepue, 2011). Also, Igbiniedion and Ojeaga (2012) see Education as a veritable means of progress for nations and individuals. Similarly, Okebukola (2012) opined that Education is a process of updating the knowledge and skills of the individual that will be useful to himself or herself and to the community. Education help individual's to gain ideas, knowledge and experience that will make them useful to themselves and the society. Furthermore, UNESCO (2002) stated that technical

vocational education and training (TVET) is a comprehensive term which encompasses the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge related to occupation in various sectors of economic and social life.

The objectives of technical and vocational education and training (TVET) as enshrined in the National Policy on Education (FRN, 2004) include the following:

(a) To provide trained man power in applied science, technology and commerce particularly at sub-professional levels.

(b) To provide people who can apply scientific knowledge to the improvement and solution of environmental problems for the use and convenience of man.

(c) To provide the technical knowledge and vocational skills necessary for agricultural, industrial, commercial and economic development.

(d) To give an introduction to professional studies in engineering and other technologies.

(e) To give training and impart the necessary skills leading to the production of craftsman, technicians and other skilled personnel who will be enterprising and self employed.

To enable our young men and women to have an intelligent understanding of the increasing complexity of technology.

Moja (2000), opined that the National Board for Technical Education (NTBE), established in 1985, gives recognition to three broad classifications of technical institutions and their different missions in meeting the needs of their society. The three groups of institutions are vocational schools, technical colleges and polytechnics/colleges of technology/colleges of education (technical) to provide a base for technological take off of this country. The implementation of TVET curriculum in tertiary institutions in Nigeria is faced with various challenges which have affected technical education programs in the various part of the country.

According to Ibeneme (2007), Nigeria does not seem to accord technical and vocational education (TVE) the attention it deserves. In support, Nwogu and Nwanoruo (2011), stated that the challenges of TVET are numerous, which include lack of skilled manpower; acute shortage of TVET teachers; and poor funding of TVET. Consequently, Olaitan citing Odu (2011) posited that the following challenges confronted the implementation of TVET curriculum in Nigeria which include insufficient material resources for training; dearth of qualified TVET educators; and the use of the quota system for selection of students in TVET teachers training programme.

In same vein Odu (2011) stated that, some of the challenges of Human Capital Development include inadequate funding; poor workshop organization; and inadequate instructional materials. Others challenges as posited by Okebukola (2012), include teachers inadequacies; funding inadequacies; gross inadequacies in facilities; harsh and intimidating lecture-room; poor quality preparation by TVET lecturers; resource inadequacy; unhealthy classroom; shortage of equipment; and social vices.

Ozioma (2011) posited that the Federal Government of Nigeria wants technical education to occupy a prominent position in our schools, but Nigerian schools pay little or no attention to technical and vocational education and training; teachers and students seem not to understand what it is all about and consequently develop some contempt and aversion for TVET courses and subjects

which now made teachers and students not to be interested in TVET programmes. The challenges of implementing the TVET curriculum in Nigerian colleges are synonymous with the problems of TVET in Nigeria and also that of general education in Nigeria. Ayonmike (2013) citing Egwu (2009) posited that some of the major challenges of the Nigerian university system includes;

- ❖ Institution related factor such as unstable academic calendar, inadequate collaboration between tertiary institutions and organized private sector, inadequate and obsolete infrastructure and equipment, for example poor equipped TVET workshop and libraries, dilapidated classroom blocks, and weak support structure for students Industrial Work Experience Scheme (SIWES);

- ❖ Human resource related problems such as brain drain, human capital flight, unattractive conditions of service for teachers, and staff shortages across board;

- ❖ Government related challenges such as inadequate funding of tertiary institutions;

- ❖ Student related challenges such as cultism, examination malpractice, social and academic vices (Egwu, 2009 in Ayonmike, 2013).

However, Udoka (2010), opined that the major challenge is funding. Similarly, Yusuf and Soyemi (2012), opined that inadequate funding is one of the problems of implementing TVET curriculum in TVET institutions. In support, Okoroafor (2010), noted that some of the problems of implementing TVET curriculum include; lack of sponsorship; inadequate infrastructure; inadequate timing; and lack of reward for excellence. Consequently, Nwogu and Nwanoruo (2011), Odu (2011), and Okebukola (2012), stated that the challenges of TVET are numerous, which include inadequate human and material resources in terms of quality and quantity; poor funding of TVET, inadequacies in infrastructural facilities; poor quality preparation of lesson by TVET teachers; and social vices. According to Mohammed (2005) in Ayonmike (2013), one of the problems of TVET in Nigeria is the lack of motivated teachers and the reason for this lack of motivation could easily be traced to the low esteem of the teachers.

According to Onjewu (n.d.) posited that the lack of funds on the other hand affects other essentials needed in the implementation of technical education like the provision of teaching aids, furnishing of offices, laboratories, workshops and even basic infrastructures like classroom, seats and tables, so that a common sight to find students of architecture for instance sharing a table where each ideally should have one because of the technical nature of their course. Similarly, Ayonmike (2013) citing Ekpenyong (2011) posited that, there are a number of factors, which have in various proportions impeded the smooth implementation of the goals and objectives of Technical and Vocational Education and Training (TVET). The National Board for Technical Education (NBTE, 2011), reported that the challenges of

TVET sector include; low societal recognition, which translate to low enrolment and inadequate skilled workforce, obsolete instructional facility, inadequate funding, poor staffing, poor linkages with industry and general deficiency in quality. In addition, evaluation in all sectors of education tends to be by conventional examinations, which generally does not factor in practical techniques in the industry.

There are numerous challenges facing TVET in Nigeria. According to Aigbepele (2011) these challenges include; negative public attitude towards technical and vocational education; inadequate basic infrastructure facilities, workshops and laboratory; inadequate funding of vocational education; inadequate and ill-equipped vocational education staff; and irregular review of the curriculum for vocational education. Moreso, the general problems of TVET in Nigeria include: limited resources, exclusion of technical and vocational education from the main stream curriculum, lack of guidance services, inadequate training of vocational teachers and the lack of teaching resources (Moja, 2000, Olumese, 2002; and Nwokomah; 2005) other challenges according to Yusuff and Soyemi (2012) includes, low quality training mismatch between training and labour market, skill discrimination against graduates of technical schools, low involvement at all levels of technical education, weak monitoring and evaluation and inadequate financing. Uwaifo and Uwaifo (2009) reported that the problems of training TVET teachers in Nigeria are finding problem, inadequate physical/material resources, mal-administration, insufficient and poorly qualified technical staff, gross neglect of vocational and technical education, and poor training and re-training programme.

Similarly, Lilly and Efajemue (2011) reported that there are many challenges worthy of nothing. Some of these challenges include; poor planning's obsolete curricular/infrastructure very low involvement, very poor teaching learning environment, and poor quality of academic staff, poor library facilities, poorly/ill equipped laboratories and lack of political will. Also, Okorafor and Okorafor (n.d) stated that poor implementation, low enrollment, gender disparity, quality of infrastructure and poor public perception are constrains and challenges of TVET in Nigeria.

However, the challenges of implementing TVET in Delta State Colleges of Education might not be different, thus there is need to examine the challenges of implementing TVET curriculum.

Statement of the Problem

The implementation of TVET curriculum in colleges of education in Delta State needs to be examined. Despite successive governments' efforts directed at improving TVET in every level of education which is aimed at making TVET programmes attractive and sellable. The

implementation of TVET curriculum is still faced with challenges which are as a result of poor implementation of TVET curriculum in colleges of education in Delta State in particular.

Purpose of the Study

The purpose of the study is to identify the challenges of implementing TVET curriculum in colleges of education in Delta State. Specifically the study seeks to ascertain the following;

- i. Government factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.
- ii. School factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.
- iii. Students' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.
- iv. Lecturers' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.
- v. Strategies for addressing the challenges of implementing TVET curriculum in colleges of education in Delta State.

Research Questions

The following research questions guided the study

- i. Does government factors posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State?
- ii. Does school factors posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State?
- iii. Does students' factors posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State?
- iv. Does lecturers' factors posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State?
- v. In what way can the challenges of implementing TVET curriculum in colleges of education in Delta State be addressed?

Research Hypotheses

The following Null Hypotheses were tested at .05 level of significance in this study;

- H₀₁: There is no significant difference in the mean response of students from college of education Agbor and Warri on the government factors that posed as challenge to the implementation of TVET curriculum in

colleges of education in Delta State.

H0₂: There is no significant difference in the mean response of students from college of education Agbor and Warri on the school factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

H0₃: There is no significant difference in the mean response of students from college of education Agbor and Warri on the students' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

H0₄: There is no significant difference in the mean response of students from college of education Agbor and Warri on the lecturers' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

H0₅: There is no significant difference in the mean response of students from college of education Agbor and Warri on the strategies for addressing the Challenges of implementing TVET curriculum in colleges of education in Delta State.

Significance of the Study

The findings of this study will be significant to Delta State Ministry of Higher Education, School administrators, lecturers, students, and future researchers. Delta State Ministry of Higher Education will benefit since the findings of the study will expose the challenges of implementing TVET curriculum in colleges of education in Delta State which will enable government and other stakeholders to tackle the implementation issue. Also, school administrators will also benefit from the findings because they will be aware of the impediment to the effective implementation of TVET curriculum in colleges of education in Delta State. In addition, TVET lecturers will benefit since the findings of the study will expose the challenges of implementing TVET curriculum in colleges of education in Delta State which will enable government and other stakeholders to tackle the implementation issue. Students will benefit from the findings because they will be aware of the impediment to the effective implementation of TVET curriculum in colleges of education in Delta State. As well, future researchers will benefit from the study because the findings will be used when conducting related research in TVET.

Scope of the Study

This Study will be delimited in locality to Delta State. The study will cover the four (4) colleges of education in the State. More so, the scope of the study in terms of the observational units will include all the TVET students' of college of education in Agbor and Warri of Delta State.

METHODS AND PROCEDURE

This study adopted the survey research design since no variable will be manipulated in the study. The population of the study was made up of 755 students in TVET departments (technical education, business education, agricultural science education, home economics education, and music education) in colleges of education in Delta State for 2013/2014 Academic Session. Random sampling technique was used to select 100 TVET students from Colleges of Education in Agbor and Warri respectively making up a total of 200 respondents that were used in this study. A five point Likert scale questionnaire titled "Questionnaire on Challenges of Implementing TVET curriculum in Colleges of Education in Delta State" with five sections (Section A-E) Section A is on government factors, Section B is on school factors, Section C is on Students factors, Section D is on lecturers' factors, and Section E is on the strategies to address the identified challenges. Section A, B, C, D and E has 6, 5, 6, 6 and 6 items respectively making up a total of 29 items in the questionnaire. The questionnaire was faced validated by three lecturers from Delta State University, Abraka. The questionnaires were administered to twenty (20) students from the Department of Technical and Business and Education, Delta State University, Abraka who were not part of the sample under study. The Cronbach's Alpha correlation technique was used to ascertain the reliability which yields 0.89, this implies that the instrument was reliable. The researcher went to Colleges of Education in Agbor and Warri to administer the questionnaires on TVET students selected for the study. Also the researcher collected the questionnaires on the spot which yield a hundred percent return rate. Mean and standard deviation was used to analyze the research questions. Furthermore, the hypotheses were tested using the Z-test statistics at 0.05 level of significance. According to Nworgu (2006) the Z-test is usually adopted in testing hypothesis about the difference between sample size that is large. Generally, a sample is considered to be large if its size is equal to or greater than 30.

RESULTS, DATA ANALYSIS AND DISCUSSION

The results are presented based on the order of the research questions and hypotheses.

Research Question 1: Does government factors posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State?

The results in table 1 revealed that government factors such as poor provision of; infrastructural facilities, consumable materials, and qualified TVET lecturers are challenges of implementing TVET curriculum in Delta State Colleges of Education. These findings are in line

Table 1 Shows the perception of students' on government factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

S/N	ITEM STATEMENT	COEWA STUDENTS			COEA STUDENTS		
		Mean	S.D	Remark	Mean	S.D	Remark
	Government Factors						
1.	Poor provision of infrastructural facilities such as library, classroom blocks, workshops, laboratories and recreational facilities.	2.96	1.17	Agree	3.57	0.49	Agree
2.	Poor provision of TVET consumable materials	3.24	0.75	Agree	3.26	0.73	Agree
3.	Poor provision of qualified TVET lecturers.	3.22	0.87	Agree	3.27	0.48	Agree
4.	Poor funding of the TVET programme.	3.12	0.57	Agree	2.57	0.65	Agree
5.	Poor governmental policy on TVET.	3.05	1.12	Agree	3.50	0.74	Agree
	Grand Mean and S.D	4.68	0.51		4.33	1.12	

Table 2 Shows the perception of students on school factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

S/N	ITEM STATEMENT	COEWA STUDENTS			COEA STUDENTS		
		Mean	S.D	Remark	Mean	S.D	Remark
	School Factors						
6.	Poor teaching methods employed by TVET lecturers and instructors.	3.02	0.85	Agree	2.80	1.26	Agree
7.	Dilapidated infrastructural facilities in TVET department	1.99	1.25	Disagree	2.69	0.78	Agree
8.	Poorly equipped libraries, workshops and laboratories	2.36	1.44	Disagree	2.52	0.57	Agree
9.	Poor provision of TVET instructional materials	1.63	1.22	Disagree	3.11	0.68	Agree
10.	Un conducive school environment.	1.64	0.93	Disagree	3.89	0.31	Agree
	Grand Mean and S.D	4.47	0.46		4.34	1.15	

Table 3 Shows the perception of students on students' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

S/N	ITEM STATEMENT	COEWA STUDENTS			COEA STUDENTS		
		Mean	S.D	Remark	Mean	S.D	Remark
	Students' Factors						
11.	Lack of interest to learn	3.24	0.78	Agree	3.88	0.32	Agree
12.	Lack of TVET textbooks and learning materials	3.46	0.50	Agree	3.05	0.57	Agree
13.	Nonpayment of tuition fees	2.80	1.47	Agree	3.17	0.53	Agree
14.	Cultism	3.27	0.44	Agree	2.90	0.91	Agree
15.	Examination malpractice	2.90	1.08	Agree	3.79	0.47	Agree
16.	Irregular attendance	3.42	0.49	Agree	2.89	1.23	Agree
	Grand Mean and S.D	4.33	0.49		4.31	1.22	

with scholars like Onjewu (2007), Efajemue (2011), Moja (2000), Olumese (2002), and Nwokomah (2005) when these researchers posited that the challenges to the implementation of TVET programmes are as a result of government poor provision human and material resources for teaching and learning TVET courses. Furthermore, the results in table 1 revealed poor funding

as one of the challenges of implementing TVET curriculum. This finding is in agreement with research works of Egwu (2009), Uwaifo and Uwaifo (2009), Udoka (2010), Yusuf and Soyemi (2012), Okoroafo (2010), Nwogu and Nwanoruo (2011), Olaitan (1994), Okebukola (2012), Onjewu (2007), and NBTE (2011). These researchers in their studies reported poor funding as one

Table 4 Shows the perception of students on lecturers' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State

S/N	ITEM STATEMENT	COEWA STUDENTS			COEA STUDENTS		
		Mean	S.D	Remark	Mean	S.D	Remark
17.	Lack of interest to teach	2.83	1.17	Agree	2.98	0.34	Agree
18.	Lack of skill competence in their area of specialisation	3.32	0.67	Agree	2.81	0.84	Agree
19.	Poor working condition and staff office	3.07	0.70	Agree	2.78	0.84	Agree
20.	Lack of interest to attend training workshops and seminar that will update their skills and knowledge	3.15	0.62	Agree	3.68	0.58	Agree
21.	Lack of TVET textbooks and other learning materials	3.11	1.00	Agree	2.73	1.23	Agree
22.	Poor preparation of lessons	2.94	0.81	Agree	3.04	0.58	Agree
	Grand Mean and S.D	4.38	0.73		4.31	1.18	

Table 5 Shows the perception of students on strategies for addressing the challenges of implementing TVET curriculum in colleges of education in Delta State.

S/N	ITEM STATEMENT	COEWA STUDENTS			COEA STUDENTS		
		Mean	S.D	Remark	Mean	S.D	Remark
	Strategies for Addressing the Challenges of Implementing TVET Curriculum						
23.	Improved funding of TVET programmes	3.41	0.75	Agree	2.75	0.82	Agree
24.	Employment of qualified TVET lecturers in TVET department	2.92	1.09	Agree	3.23	0.86	Agree
25.	Adequate provision of facilities and equipment for the implementation of TVET curriculum	2.43	0.81	Disagree	3.66	0.60	Agree
26.	Retraining of TVET lecturers to update their knowledge and skills	2.45	0.64	Disagree	3.15	0.95	Agree
27.	Adequate supervision of TVET programmes	3.16	0.67	Agree	2.77	0.46	Agree
28.	Establishment of partnership between TVET institutions and industries	3.65	0.47	Agree	2.79	0.86	Agree
	Grand Mean and S.D	4.38	0.73		4.31	1.18	

of the challenges of TVET in Nigeria.

Research Question 2: Does school factors posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State?

Table 2 revealed that school factors such as poor teaching methods, dilapidated infrastructural facilities, poorly equipped libraries, workshops, and laboratories, poor provision of TVET instructional materials, and un conducive school environment are challenges to the implementation of TVET curriculum. These findings are in line with Efajemue (2011), NBTE (2011), Moja (2000),

Olumese (2002), and Nwokomah (2005). These researchers opined that the challenges to the implementation of TVET curriculum are as a result of poor teaching methods employed by TVET lecturers, and poor provision of teaching materials.

Research Question 3: Does students' factors posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State?

Table 3 revealed students' factors such as lack of; interest to learn, and TVET learning materials. Also, nonpayment of tuition fees, cultism, examination

Table 6 Shows the test of significant difference on the perception of students from college of education Agbor and Warri on government factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Group	Mean	S.D	N	Df	Z-Calculated	Z - Tabulated	Decision
COEWA	3.11	0.11	100	198	-0.00	1.645	Accept
COEA	3.23	0.39	100				

Table 7 Shows the test of significant difference on the perception of students from college of education Agbor and Warri on the school factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Group	Mean	S.D	N	Df	Z-Calculated	Z - Tabulated	Decision
COEWA	2.12	0.58	100	198	-0.00	1.645	Accept
COEA	3.00	0.54	100				

Table 8 Shows the test of significant difference on the perception of students from college of education Agbor and Warri on the students' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Group	Mean	S.D	N	Df	Z-Calculated	Z - Tabulated	Decision
COEWA	3.18	0.27	100	198	-0.00	1.645	Accept
COEA	3.28	0.44	100				

Table 9 Shows the test of significant difference on the perception of students from college of education Agbor and Warri on the lecturers' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Group	Mean	S.D	N	Df	Z-Calculated	Z - Tabulated	Decision
COEWA	3.07	0.17	100	198	-0.00	1.645	Accept
COEA	3.00	0.35	100				

Table 10 Shows the test of significant difference on the perception of students from college of education Agbor and Warri on the strategies for addressing the Challenges of implementing TVET curriculum in colleges of education in Delta State.

Group	Mean	S.D	N	Df	Z-Calculated	Z - Tabulated	Decision
COEWA	3.00	0.49	100	198	0.00	1.645	Accept
COEA	3.05	0.36	100				

malpractice, and irregular attendance of lectures by students are challenges to the implementation of TVET curriculum. These findings are in agreement with Egwu (2009) when the researcher reported that students' related challenges such as cultism, examination malpractice, and social academic vices are challenges of implementing educational curriculum in Nigeria.

Research Question 4: Does lecturers' factors posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State?

Table 4 revealed lecturers' factors such as lack of; interest to teach and skill competence, poor working condition, and poor preparation of lessons are challenges of implementing TVET curriculum. These findings are in consonance with Mohammed (2005) who argued that the problem of TVET in Nigeria is the lack of motivated teachers. In support, Aigbepuele (2011) opined that inadequate and ill-equipped vocational education teachers are challenges to the implementation of TVET curriculum.

Research Question 5: In what way can the challenges

of implementing TVET curriculum in colleges of education in Delta State be addressed?

Table 5 revealed that various strategies can be used to address the challenges of implementing TVET curriculum. These strategies include: improved funding of TVET programmes, employment of qualified TVET lecturers, adequate supervision of TVET programmes, and establishment of partnership between TVET institutions and industries.

Hypothesis 1: There is no significant difference in the mean response of students from college of education Agbor and Warri on the government factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Since the z-calculated (-0.00) was less than z-tabulated (1.645), hypothesis 1 was accepted. This implies that there is no significant difference in the mean response of students from college of education Agbor and Warri on the government factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Hypothesis 2: There is no significant difference in the mean response of students from college of education Agbor and Warri on the school factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Since the z-calculated (-0.00) was less than z-tabulated (1.645), hypothesis 2 was accepted. This implies that there is no significant difference in the mean response of students from college of education Agbor and Warri on the school factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Hypothesis 3: There is no significant difference in the mean response of students from college of education Agbor and Warri on the students' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Since the z-calculated (-0.00) was less than z-tabulated (1.645), hypothesis 3 was accepted. This implies that there is no significant difference in the mean response of students from college of education Agbor and Warri on the students' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Hypothesis 4: There is no significant difference in the mean response of students from college of education Agbor and Warri on the lecturers' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Since the z-calculated (-0.00) was less than z-tabulated (1.645), hypothesis 4 was accepted. This implies that there is no significant difference in the mean response of students from college of education Agbor and Warri on the lecturers' factors that posed as challenge to the implementation of TVET curriculum in colleges of education in Delta State.

Hypothesis 5: There is no significant difference in the mean response of students from college of education Agbor and Warri on the strategies for addressing the Challenges of implementing TVET curriculum in colleges of education in Delta State.

Since the z-calculated (-0.00) was less than z-tabulated (1.645), hypothesis 5 was accepted. This implies that there is no significant difference in the mean response of students from college of education Agbor and Warri on the strategies for addressing the challenges of implementing TVET curriculum in colleges of education in Delta State.

CONCLUSION

Based on the findings of this study, it was concluded that the implementation of TVET curriculum in Delta State Colleges of Education are faced with different challenges emanated from various factors such as government, school, students', and lecturers' factors, but the major

challenges to the implementation of TVET curriculum is as a result of poor funding of TVET programmes by government which are evident in the state of infrastructural facilities, as well the numbers of qualified TVET lecturers in Delta State Colleges of Education.

RECOMMENDATIONS

Based on the findings of this study, the researcher recommends the following which is believed will address, if implemented the challenges to the implementation of TVET curriculum in Delta State Colleges of Education:

- ❖ Delta State Government should improve funding of TVET programmes in Delta State Colleges of Education.

- ❖ Delta State Government should employ qualified and experienced TVET lecturers in Delta State Colleges of Education.

- ❖ Delta State Government should provide relevant infrastructural facilities for the implementation of TVET curriculum in Delta State Colleges of Education.

- ❖ Delta State Government should training and retraining programmes for TVET lecturers in Delta State Colleges of Education.

- ❖ Delta State Government should adequately supervised TVET programmes in Delta State Colleges of Education.

- ❖ Delta State Government should establish partnership between TVET institutions and industries so as to aid the effective implementation of TVET curriculum in Delta State Colleges of Education.

REFERENCES

- Adegbile P (n.d). Technical and vocational education in Nigeria: A critical analysis. Retrieved 11th March 2013 from <http://www.google.com>
- Aigbepue S (2011). Revitalization of vocational and technical education. *JORIND* 9(1). Retrieved 11th March, 2013 from <http://www.ajol.info/journals/jorind>.
- Ayonmike CS (2013). Status of technical and vocational education in rural institutions in Delta State Nigeria. *Makerere Journal of Higher Education*, 5 (1): 81 – 90.
- Ayonmike CS (2014). Challenges of implementing technical and vocational education and training curriculum in Southern Nigeria technical colleges. *Makerere Journal of Higher Education* 6(1).
- Ayonmike CS, Okwelle PC and Okeke BC (2013). Towards quality technical vocational education and training (tvet) programmes in Nigeria: challenges and improvement strategies. International Vocational Education and Training Association (IVETA) Las Vegas 2013 Conference Proceedings on Quality Assurance. Retrieved 11th June 2014 from <http://www.iveta.org>
- Ediagbonya K, Agbaje M and Suberu AK (2012). Analysis of factors influencing business education students enrollment pattern in N.C.E. programme in Federal college of education, Okene Kogi State. *WEEIS International Journal of Arts and Combined Sciences*. 3(1).
- FRN (2004). *National policy on education* (Revised Edition). Lagos: NERDC Press.
- Ibeneme OT (2007). Vocational technical education: Nigerian's imperative for achieving the first millennium development goal initiative. *Journal of Vocational and Adult Education*. 6 (1).

- Igbinedion VI and Ojeaga II (2012). Use of career education and occupation information services in boosting enrollment into vocational and technical education programmes in Nigeria. *International Education Studies*. 5(4).
- Lilly G and Efajemue OO (2011). Problems of vocational teacher education in Rivers State of Nigeria. *Journal of Educational and Social Research*. 1(5).
- Mclean R and David NW (2009). *International handbook of education for the changing world of work: Bridging academic and vocational learning*. Retrieved from http://toolkit.ineesite.org/toolkit/INEEcms/uploads/1093/International_Handbook_of_Education_Changing.pdf
- Mimi MM, Yee MH, Tee TK and Muhammad RBR (2012). Vocational pedagogy: a dimension of vocational learning with workplace requirement. *Journal of Technical Education and Training*. 4(1).
- Moja T (2000). *Nigeria education sector analysis: an analytical synthesis of performance and main issues*. New York, University Press.
- NBTE (2011). Report of the national steering committee on the development of national vocational qualifications framework (NVQF) for Nigeria. Retrieved 11th march 2013 from <http://www.google.com>.
- Nwogu PO and Nweanomo CC (2011). Vocational technical education and training for self-reliance: towards national development. *Mediterranean Journal of Social Sciences* 5(5):55-59.
- Nwokomah JM (2005). Strategies for attainment for functional vocational and technical education in the 21st century in Nigeria. *Journal of Education in Developing Areas*. 1(4).
- Nworgu BG (2006). *Educational research: basic issues and methodology*. 2nd Edition, Nsukka – Enugu: University Trust Publishers.
- Odu OK (2011). Philosophical and sociological overview of vocational and technical education in Nigeria. *American – Eurasian Journal of Scientific Research* 6 (1).
- Okebukola P (2012). *Education, human security and entrepreneurship*. 7th Convocation Lecture of Delta State University, Abraka, University Printing Press.
- Okorafor PN and Okorafor OA (n.d). Reflections on technical and vocational education and training in Nigeria in the 21st century. *Journal of Assertiveness*. Pp.7-16. Retrieved 30th April 2014 from <http://www.google.com>
- Okoroafor EC (2011). The role of vocational and technical education in manpower development and job creation in Nigeria in the 21st century. *Journal of Assertiveness*. Retrieved 11th March, 2013 from <http://www.google.com>.
- Olumese HA (2002). Vocational and technical education in Nigeria: issues, problems and prospects. *Nigerian Journal of Curriculum Studies*. A (1).
- Onyewu MA (n.d.). An assessment of Nigeria's goals on technical education: the journey so far and the way forward. A Paper Presented at the 33rd Annual Conference of the International Association for Education Assessment at Baku, Azerbaijan. Retrieved July 24, 2012 from <http://www.google.com.ng>.
- Ozioma CA (2011). Influential factors affecting the attitude of students towards vocational and technical subjects in secondary schools in South Eastern Nigeria. *Journal of Educational and Social Research*. 1(2).
- Raheem IA (n.d). Improving the declining enrollment in technical education in the 21st Century. Retrieved 11th March 2013 from <http://www.google.com.ng>.
- Udoka SI (2010). The global economic crisis: A challenges to curriculum of implementation in technical and vocational education technology in Nigeria. Retrieved 20th August, 2013 from www.icidr.org/...2010/The%20Global%20Economic%20Crisis%20a%20.
- Umunadi KE (2013). Vocational and technical education reforms and human capital development in Nigeria. *Prime Research on Education (PRE)* 3(6): 560- 565. Retrieved 13th June 2014 from [http:// www primejournal.org/PRE](http://www.primejournal.org/PRE)
- UNESCO (2002). *Technical and vocational education and training for the twenty-first century*. Geneva, UNESCO & ILO.
- Uwaifo VO (2010). Technical education and its challenges in Nigeria in the 21st century. *International NGO Journal*. 5(2). Retrieved 11th March, 2013 from <http://www.academicjournals.org/ingol>.
- Uwaifo VO and Uwaifo IU (2009). Training teachers for the new 9-3-4. Education system in Nigerian: its Problems and Prospects. *International NGO Journal* 4(4). Retrieved 11th March, 2013 from <http://www.academicjournals.org/NGO>.
- Yusuf MA and Soyemi I (2012). Achieving sustainable economic development in Nigeria through technical and training: the missing link. *International Journal of Academic Research in Business and Social Sciences* 2(2).