

## STRATEGIC WORK-BASED LEARNING FRAMEWORK FOR ACHIEVING SUSTAINABLE DEVELOPMENT GOALS (SDGs) THROUGH GLOBAL PARTNERSHIP IN TVET

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### Abstract

*The study determined strategic work-based learning framework for achieving sustainable development goals (SDGs) through global partnership in technical and vocational education and training (TVET). Three research questions and two hypotheses were developed to guide the study. The population for the study was 382 Technical and Vocational Education (TVE) lecturers from four tertiary institutions offering TVE programmes in Delta State. Due to the manageable size of the population, the entire 382 TVE lecturers were involved as respondents for the study, hence, there was no sampling. The instrument for data collection for the study was a structured 54-item questionnaire. The instrument was content and face-validated by three TVE experts in Delta State University, Abraka. The reliability of the instrument was carried out by trial testing 15 copies on TVE lecturers in tertiary institutions in Edo State. Data collected from the trial testing were analysed using Cronbach Alpha method which yielded a coefficient of 0.853. Out of the 382 copies of the questionnaire administered, 358 copies were completely filled and returned representing 93.7% return rate. Data for the study were analysed using frequency, percentages and mean for answering the research questions while analysis of variance (ANOVA) was used for testing the hypothesis. The results of the study revealed low work-based learning practices engaged in TVET in Delta State. In addition, the study identified 18 challenges undermining sustainable work-based learning and 19 strategic work-based learning frameworks for sustainable TVET in Delta State. Based on the findings, the study recommended appropriate collaboration of United Nations with Nigerian TVET and Delta State for effective work-based learning practices in technical and vocational education and training.*

**Keyword:** Work-based learning, sustainable development goals, global partnership, TVET.

### Introduction

Technical and Vocational Education and Training (TVET) is all forms of education that involves, in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupation in various sectors of national economy and development. Nwosu and Micah (2017) noted that the type of education that leads to acquisition of vocational and technical skills, industrial and technological development had been a major tool for national development, economic enlightenment, self-reliance and citizenship empowerment. The goals of Technical and Vocational Education (TVE) according to Federal Government of Nigeria (2014) are to (i) provide trained man-power in applied sciences, technology and business, (ii) provide technical knowledge and vocational skill necessary for economic development and (iii) give training and impart necessary skill for self-reliance economically. From a development point of view, TVET facilitates economic growth by increasing the productivity of workers. TVET, like any other form of education also facilitates socio-economic development by enhancing the capacity of individuals to adopt practices that are socially worthwhile for personal and overall economic development. Therefore, TVET according to Fosti (2009) forms an integral part of the process of sustained human capital development as it endows people with skills, knowledge and attitudes that enhance their employability – that is, ability of people to obtain and retain a job and made a decent living among others. One of the strategic approaches of strengthening TVET is functional work-based learning framework

Work-based learning is a learning approach in which learners are full-time employees whose programme of study is embedded in the workplace and designed to meet the learning needs of the employees and the objectives of their organisation. Amadi (2013) described work-based learning as offering students the critical opportunity for experiencing how a classroom instruction connects to the

work-world and future career prospects as well as job opportunities. Okon (2011) stated that work-based learning is an instructional arrangement in which learners are concurrently exposed to instruction in both work and learning environments. Kamin, Latib, Amin, Saud and Ahmad (2018) observed that, as a workplace learning environment, the application of the Work-Based Learning (WBL) programme genuinely involves real experiences when it transforms theory into practice in the workplace context. Schrenko (2010) submitted that a work-based learning programme must include work experience opportunities, job training and work experiences coordinated with both academic and occupational learning in school-based programmes that are relevant to students' programme of study. Virginia Department of Education (2015) submitted that some of the work-based learning experiences relevant to TVE include: industrial training, field trips/excursion, job shadowing, school-based enterprises/entrepreneurial ventures, paid and unpaid internship/practicum, cooperative work, youth apprenticeship career, career days/fairs, work-study programmes, business mentorships, on-the-job training and workplace supervision. Therefore, work-based learning is an experiential learning programmes that use the work environment as an important component to foster quality teaching and reverse the observed low interest and skill acquisition of technical and vocational education students. Effective work-based learning has the capacity to guarantee Sustainable Development Goals (SDGs).

The Sustainable Development Goals (SDGs) are a collection of 17 global goals set by the United Nations General Assembly in 2015 for the year 2030. The 2030 Agenda for Sustainable Development adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future (United Nations, 2018). The achievement of SDGs is further strengthened by a pro-active global partnership in development agenda.

Global partnership is an inclusive, multi-stakeholder partnership and funding platform that aims to strengthen education systems in developing countries in order to dramatically increase learning (Global Partnership for Education, 2019). Global partnership is an effort to support the governments of developing countries to develop good quality systems for quality education and economic development. Governments take the lead in planning and are accountable for delivery; while global partnership has the capacity to strengthen technical capacity, and brings in the talent and resources of all partners.

In a global partnership, countries work as a team by pooling their resources or skills to provide better products or quality services for economic, educational and technological advancement of both development and developing nations. Other specific benefits of global partnership in education include but not limited to: exploitation of new opportunities to strengthen global market, increase in new skills and technologies, broader business and political contact base, greater knowledge of international education, and enhance image in the world marketplace. The achievement of sustainable development through work-based learning can only be realized with engagement of relevant strategies. Strategy refers to a plan of action designed to achieve a particular goal.

Strategies according to Pandey and Srivastava (2000) is an important feature that can be adopted to promote the effectiveness and attempt to bring solution to any area of difficulties and stress in organizations, groups and among family members. Strategy is the mean by which objectives of an organization or institution are consciously and systematically pursued and obtained over time. Riley (2015) noted that strategy is the direction and scope of an organisation or institution over a long-term through its configuration of resources within a challenging environment to meet the institutional needs and expectations. Strategies are plans of action designed to achieve a specific goal or series of goals within an organizational framework. According to Freedman (2013), strategy is a high level plan to achieve one or more goals under conditions of uncertainty. The ineffectiveness in Nigerian technical and vocational education and training (TVET) is worrisome and deserve urgent attention. Hence, this study was carried out to investigate strategic work-based learning framework for achieving sustainable development goals (SDGs) through global partnership in Technical and Vocational Education and Training (TVET) using Delta State Nigeria as case study.

### **Purpose of the Study**

The major purpose of the study was to investigate strategic work-based learning framework for achieving sustainable development goals (SDGs) through global partnership in Technical and Vocational Education and Training (TVET). Specifically, the study:

- i. Determined rate of engaging work-based learning practices in Technical and Vocational Education and Training (TVET) in Delta State.
- ii. Identified challenges of work-based learning in Technical and Vocational Education and Training (TVET) in Delta State.
- iii. Identified strategic work-based learning frameworks for sustainable Technical and Vocational Education and Training (TVET) in Delta State.

### **Research Questions**

The study answered the following research questions :

- i. What are the rates of engaging work-based learning practices in Technical and Vocational Education and Training (TVET) in Delta State?
- ii. What are the challenges of work-based learning in Technical and Vocational Education and Training (TVET) in Delta State?
- iii. What are the strategic work-based learning frameworks for sustainable Technical and Vocational Education and Training (TVET) in Delta State?

### **Research Hypotheses**

**HO<sub>1</sub>:** There is no significant difference in the mean ratings of Technical and Vocational Education lecturers on the challenges of work-based learning in Technical and Vocational Education and Training (TVET) in Delta State based on their educational qualification.

**HO<sub>2</sub>:** There is no significant difference in the mean ratings of Technical and Vocational Education lecturers on the strategic work-based learning frameworks for sustainable Technical and Vocational Education and Training (TVET) in Delta State based on their educational qualification.

### **METHODS**

The study was conducted in Delta State, south-south Nigeria. Delta State is made up of 25 Local Government Areas with its administrative headquarters in Asaba. Three research questions were answered while two hypotheses were tested by the study at 0.05 level of significance. The study was carried out adopting descriptive survey research design. Descriptive survey research design according to Rouse (2019) is the collection of data attained by asking individuals questions either in person, on paper, by phone or online using questionnaire through primary research which is the gathering of first-hand data from its source. In this study therefore, structured questionnaire was developed and administered to Technical and Vocational Education lecturers who constituted the respondents for the study.

The population for the study was 382 Technical and Vocational Education (TVE) lecturers from four tertiary institutions offering TVE programmes in Delta State. The four tertiary institutions include: (i) Delta State Univeristy, Abraka, (ii) Federal College of Education (Technical) Asaba, (iii) Delta State College of Education, Agbor and (iv) Delta State College of Education, Warri. Due to the manageable size of the population, the entire 382 TVE lecturers were involved as respondents for the study, hence, there was no sampling. The instrument for data collection was a well structured 54-item questionnaire developed by the researcher. The instrument was structured into three sections in line with the three specific purposes. Section I focused on determining the levels of engaging various work-based learning practices in technical and vocational education and training in the study area. Section II dealt with data collection on challenges undermining sustainable work-based learning in Technical and Vocational Education and Training while Section III was structured to generate data on strategic work-based learning frameworks for sustainable Technical and Vocational Education and Training. The response options for section I was dichotomous (Yes or No) which the response options for sections II and III were 4-point rating scale of Strongly Agreed (4), Agreed (3), Disagreed (2) and Strongly Disagreed (1).

The questionnaire was face and content-validated by three Technical and Vocational Education Lecturers from Delta State University, Abraka. Each of the experts was given a copy of the questionnaire items and was requested to indicate any ambiguous statement or item in the

instrument. All the comments raised by the experts were duly addressed to improve the final copy of the questionnaires used for data collection. The reliability of the instrument was carried out by trial-testing 15 copies of the validated questionnaire on 15 Technical and Vocational Education Lecturers in tertiary institutions in Edo State. Data collected for the reliability were analysed using Cronbach Alpha reliability method which yielded a reliability coefficient of 0.852 which indicates that the instrument was about 85% reliable for data collection for the study.

The researcher adopted personal contact approach in data collection. Four research assistants from each of the four public tertiary institutions were hired and trained to administer and retrieve the copies of the questionnaire from respondents. Out of the 382 copies of the questionnaire administered, 358 copies were completely filled and returned representing 93.7% return rate. Data for the study were analysed using frequency, percentages and mean for answering the research questions while analysis of variance (ANOVA) was used for testing the two hypotheses.

In taking decision on research question one, work-based items with percentage values greater than 50% were interpreted as work-based learning practiced in technical and vocational education and training (TVET) in the study area, but where the percentage value was less than 50%, it indicated that the work-based learning items are not practiced in TVET in the area. On research questions two and three, a criterion cut-off point value of 2.50 was used as benchmark on 4-point rating scale. Therefore, items with mean values of 2.50 or above were interpreted as 'Agreed' while a mean value below 2.50 was interpreted as 'Disagreed'. The hypothesis of no significant difference was accepted for item cluster whose p-value value was greater than 0.05 level of significance while the hypothesis of no significant difference was rejected for item cluster whose p-value value was less than 0.05 level of significance.

## RESULTS AND DISCUSSIONS

### Research Question One

What are rates of engaging work-based learning practices in Technical and Vocational Education and Training (TVET) in Delta State?

**Table 1: Frequency and Percentage Distribution of Rates of Engaging Work-based Learning Practices in Technical and Vocational Education and Training (TVET) in Delta State (n = 358)**

SN	Various work-based learning practices	Frequency	Percentage	Remarks
1	The practice of career fairs	54	15.08	Not Practiced
2	Paid employment for learners	128	35.75	Not Practiced
3	Employer presentations forum	113	31.56	Not Practiced
4	Job training programme	118	32.96	Not Practiced
5	Field trips industry	334	93.29	Practiced
6	Apprenticeships	107	29.88	Not Practiced
7	Cooperative work experience	72	20.11	Not Practiced
8	Job shadowing	66	18.43	Not Practiced
9	Student-run enterprises	82	22.90	Not Practiced
10	Workplace tours	198	55.30	Practiced
11	Internships programme	273	76.25	Practiced
12	Business mentorships	54	15.08	Not Practiced
13	Guest speakers	79	22.06	Not Practiced
14	Work-study programmes	110	30.72	Not Practiced
15	School-based enterprise	245	68.43	Practiced
16	Volunteering	39	10.89	Not Practiced
17	Service learning programme	87	24.30	Not Practiced

The result in Table 1 showed that four out of the 17 work-based items had percentage values greater than 50%. These include: field trips industry (93.29%), workplace tours (55.30%), internships programme (76.25%) and school-based enterprise (68.43%) indicating that the four identified work-based learning items are the most practiced in Technical and Vocational Education and Training (TVET) in Delta State. The result agreed with that of Ismail, Mohamad, Omar, Heong and Kiong (2015) who identified common components to include: field trips, job shadowing, youth

apprenticeship and pay employment. Similarly, Amaechi and Thomas (2016) noted that field-trip is part of the method of straightening work-based learning in technical and vocational education.

The percentage values for: practice of career fairs (15.08), paid employment for learners (35.75), employer presentations forum (31.56), job training programme (32.96), apprenticeships (29.88), cooperative work experience (20.11), job shadowing (18.43), student-run enterprises (22.90), business mentorships (15.08), guest speakers (22.06), work-study programmes (30.72), volunteering (10.89) and service learning programme (24.30) are in each case less than 50% which implied that the work-based learning items are not practiced in Technical and Vocational Education and Training (TVET) in Delta State, Nigeria. The above result generally showed that rate of practice of work-based learning is relatively low in Delta State. Mark (2016) in a study found that the rate of adoption of work-based learning practices such as paid employment for learners, cooperative work experience, student-run enterprises, service learning programme and volunteering in Nigerian vocational and technical education is still very low as most TVET teaching are classroom-based.

### Research Question Two

What are the challenges of work-based learning in Technical and Vocational Education and Training (TVET) in Delta State?

**Table 2: Mean Ratings of Technical and Vocational Education Lecturers on Challenges of Work-based Learning in Technical and Vocational Education and Training (TVET) in Delta State. (n = 358)**

SN	Challenging of work-based learning include:	$\bar{X}$	SD	Rmks
1	Lack of access to modern machines and facilities in the industries by students trainees for skill acquisition	3.50	0.54	Agreed
2	Negative orientation of general public of technical and vocational education.	3.46	0.51	"
3	Increased cases of sexual harassment and assault students' trainees by industrial supervisors.	3.37	0.52	"
4	Ineffective coordination of relevant agencies on functional work-based learning in Nigeria.	3.58	0.72	"
5	Non acceptance of students on industrial attachment by managers of industries.	3.40	0.51	"
6	Ineffective institutions-industry linkage for effective work-based learning.	3.49	0.50	"
7	Lack of in-services training policy and programme for TVE lecturers and instructors for skill update	3.56	0.48	"
8	Ineffective regulatory framework for students' posting to industries of relevance to their discipline.	3.66	0.52	"
9	Lack of strategic plan to avert frequent interruption in Nigeria school calendar	3.56	0.52	"
10	Inadequate technical and vocational-based firms in the state where learners can have quality industry-based learning experience	3.24	0.76	"
11	Lack of dedication and commitment of learning in TVE work-based learning experience.	3.68	0.43	"
12	Inadequate practical testing of students by industrial based supervisors during their Industrial Training (IT).	3.31	0.52	"
13	Short training period of technical and vocational education and training students.	3.48	0.57	"
14	Lack of proactive policies for work-based training period for TVE students.	3.52	0.54	"
15	Ineffective supervisory role by school-based supervisors of TVE students by during Work-based learning experience.	3.61	0.75	"
16	Negative attitude towards technical and vocational education thereby reducing enrolment.	3.50	0.68	"

17	Over emphasize on theory in technical and vocational training offered in Nigerian schools.	3.53	0.54	"
18	Lack of basic motivating incentives inform of stipends to students on industrial training (IT).	3.78	0.53	<b>Agreed</b>

**Note:**  $\bar{X}$  = Mean; **SD** = Standard Deviation.

The result in Table 2 showed that the mean ratings of respondents on the 18 items in the Table ranged between 3.24 – 3.78 which are all greater than the cut-off point value of 2.50 on 4-point ratings scale. This implied that the 18 identified items in the Table are regarded by Technical and Vocational Education Lecturers as challenges of work-based learning in Technical and Vocational Education and Training (TVET) in Delta State. The standard deviation values of the 18 items ranged from 0.43 to 0.76 which indicates that the responses of the respondents are close to the mean and one another. The findings of this study agreed with that of Ikenga, Afolabi and Oru (2009) who identified challenges of vocational education in Nigeria to include poor government policy, lack of equipment and workshop, lack of qualified vocational teachers, inadequate funding and poor societal attitude towards vocational education. Abassah (2011) reported that the general attitude of Nigerian society towards technical education and training is negative and TVET is regarded as education for the never do well among students. In addition, the findings of this study conformed with that of Alam, Hoque and Oloruntegbe (2010) noted that the poor linkage between vocational institutions and industries has resulted in poor learning of technical and vocational trades.

#### Hypothesis One

**H<sub>01</sub>:** There is no significant difference in the mean ratings of Technical and Vocational Education lecturers on the challenges of work-based learning in Technical and Vocational Education and Training (TVET) in Delta State based on their educational qualification.

**Table 3: Analysis of Variance (ANOVA) of Mean Ratings of Lecturers on the Challenges of Work-Based Learning in Technical and Vocational Education and Training in Delta State Based on their Educational Qualification.**

Sources of Variance	Sum of Squares	DF	Mean Square	F-Cal	P-value	Level of Sig	Remark
Between Groups	1.573	2	0.82	0.94	0.43	0.05	<b>NS</b> <b>(Accept H<sub>01</sub>)</b>
Within Groups	238.743	355	0.79				
<b>Total</b>	<b>240.316</b>	<b>357</b>					

**Note:** Level of Sig. = 0.05; **NS** = Not Significant at 0.05.

The result of analysis of variance (ANOVA) presented in Table 3 revealed that p-value of 0.43 is greater than 0.05 level of significance. This implied that there was no significant ( $p < 0.05$ ) difference in the mean ratings of Technical and Vocational Education Lecturers on the challenges of work-based learning in Technical and Vocational Education and Training (TVET) in Delta State based on their educational qualifications (B.Sc/Ed, M.Sc and Ph.D). Hence, the null hypothesis of no significant ( $p < 0.05$ ) difference in the mean responses of the lecturers on hypothesis one was accepted.

#### Research Question Three

What are the strategic work-based learning frameworks for sustainable Technical and Vocational Education and Training (TVET) in Delta State?

**Table 4: Mean Ratings of Technical and Vocational Education Lecturers on Strategic Work-based Learning Frameworks for Sustainable Technical and Vocational Education and Training (TVET) in Delta State (n = 358)**

SN	Strategic work-based learning frameworks include:	$\bar{X}$	SD	Rmks
1	Increase in technical support by government at all levels to technical and vocational education.	3.55	0.65	Agreed
2	Introduction of a central industrial training examination in the curriculum for TVE students.	3.44	0.58	"
3	Given priority to work-based learning through increased period for TVE students for effective practical training.	3.58	0.71	"
4	Creating more technical and vocational training centres for work-based learning across the state.	3.46	0.59	"
5	Develop framework to design students' research projects on solving an identified industrial problem.	3.71	0.48	"
6	Ensuring students on training have access to needed information, facilities and machines.	3.52	0.55	"
7	Sponsorship for government and institutional funding of work-based learning in Nigeria.	3.48	0.54	"
8	Regulatory institution to strictly control students posting to relevant VTE industries and firms.	3.74	0.37	"
9	Generating a data pool of list of industries of relevance for students training for possible selection.	3.57	0.57	"
10	Government payment of monthly stipends or allowance throughout the training period.	3.48	0.56	"
11	Continuous professional training to both school and industrial supervisors for skill update.	3.80	0.34	"
12	Ensuring strict 'no rejection' policy of students on training to guide operators of industries.	3.56	0.56	"
13	Stepping up the use of modern machines and facilities to stimulate students' interest in work-based learning experiences.	3.61	0.47	"
14	Redesigning TVET in Nigeria to reflect contemporary contents of modern day work place experience	3.46	0.55	"
15	Formulating robust Technical and Vocational Education work-based learning policies for effectiveness.	3.69	0.60	"
16	Increased work-based learning research at advanced level for solution to emerging challenges.	3.37	0.79	"
17	Increased awareness of work-based learning for effective Technical and Vocational Education in Nigeria.	3.42	0.62	"
18	Capacity building and training of Technical Vocational Education instructors and lecturers for effective service delivery.	3.60	0.55	"
19	Increased budget of Technical and Vocational Education by government at all levels for effective work-based learning.	3.53	0.48	Agreed

**Note:**  $\bar{X}$  = Mean; SD = Standard Deviation..

The result in Table 4 revealed that the mean ratings of respondents on the 19 items in the Table ranged between 3.37 – 3.80 which are all greater than the cut-off point value of 2.50 on 4-point ratings scale. This implied that the 19 identified items in the Table are regarded by Technical and Vocational Education Lecturers as strategic work-based learning frameworks for sustainable Technical and Vocational Education and Training (TVET) in Delta State. The standard deviation values of the 19 items ranged from 0.34 to 0.79 which indicates that the responses of the respondents are close to the mean and one another.

The findings of this study agreed with that of Okoye and Arimonu (2016) who suggested local and foreign training of technical and vocational education lecturers and instructors as a continuous exercise to ensure consistent improvement in the quality of their products. Also in conformity with the results of this study, Lugujo and Manyindo (1999) submitted that establishment of effective relations between technical institutions and industries must be strengthened and expand administrative activities to include public relations, curriculum development and industrial services and training. Similarly, the findings of this study corroborated that of Amadi and Lazarus (2017) who reported that Nigerian Government should employ more personnel where needed, good infrastructural facilities to create good learning environment, and sound administrative strategies for continuous re-orientation of technical and vocational education and training for programme update. Awo (2016) reported that a balanced approach should be emphasized in Nigerian technical and vocational education school curriculum through the integration of technical, employability, generalized, creative and innovative skills in technical and vocational programmes.

### Hypothesis Two

**H<sub>02</sub>:** There is no significant difference in the mean ratings of Technical and Vocational Education lecturers on the strategic work-based learning frameworks for sustainable Technical and Vocational Education and Training (TVET) in Delta State based on their educational qualification.

**Table 5: Analysis of Variance (ANOVA) of Mean Ratings of Lecturers on Strategic Work-based Learning Frameworks for Sustainable Technical and Vocational Education and Training (TVET) in Delta State based on their Educational Qualification.**

Sources of Variance	Sum of Squares	DF	Mean Square	F-Cal	P-value	Level of Sig	Remark
Between Groups	0.778	2	0.66	3.23	0.02	0.05	<b>S* (Reject H<sub>02</sub>)</b>
Within Groups	224.654	355	0.61				
<b>Total</b>	<b>225.432</b>	<b>357</b>					

**Note:** Level of Sig. = 0.05; **S\*** = Significant at 0.05.

The result of analysis of variance (ANOVA) presented in Table 5 showed that p-value of 0.02 is less than 0.05 level of significance. This indicated that there was significant ( $p < 0.05$ ) difference in the mean ratings of Technical and Vocational Education Lecturers on the strategic work-based learning frameworks for sustainable Technical and Vocational Education and Training (TVET) in Delta State based on their educational qualifications (B.Sc/Ed, M.Sc and Ph.D). Therefore, the null hypothesis of no significant ( $p < 0.05$ ) difference in the mean responses of the lecturers on hypothesis two was rejected.

### Conclusion

Work-based learning is a framework that deals with working experience in which learners are concurrently required to go through learning in training institution and industry for acquisition of skills and experience. Unfortunately, the present practice of work-based learning framework in Nigerian technical and vocational education programme is not matching the practice of technologically advanced countries of the world. The situation has further worsened the increasing unemployment and unemployable status of most Nigerian graduates of technical and vocational education. This situation instigated the researcher to investigate strategic work-based learning framework for achieving sustainable development goals (SDGs) through global partnership in TVET using Delta state as case study. From the data collected and analysed, the study established that the rate of work-based learning practices engaged in TVET in Delta State is still very low. The study also identified 18 challenges undermining sustainable work-based learning and 19 strategic work-based learning frameworks for sustainable TVET in Delta State.

### Recommendations



Based on the findings, the study recommended:

1. Appropriate collaboration of United Nations with Nigerian TVET and Delta State for effective work-based learning practices in technical and vocational education and training.
2. Carefully developed work-based learning framework to be overseen by the Industrial Training Unit of education sector to coordinate the synergy between training institutions and industry for improved skill acquisition of the teaming Nigerian youths.
3. Formulation of appropriate policies to strengthen work-based learning in Nigerian technical and vocational education for the production of competent graduates and technicians in Nigerian labour market.
4. Continuous and periodic skill and competence-based training and retraining of technical and vocational education lecturers for skill update and effectiveness in service delivery.

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