ENTREPRENEURSHIP TRAINING STRATEGIES NEEDED BY ELECTRICAL/ELECTRONIC TECHNOLOGY EDUCATION (EETE) LECTURERS FOR SUSTAINABLE SKILLS DEVELOPMENT OF STUDENT OF COLLEGES OF EDUCATION (TECHNICAL) AND JOB CREATION IN SOUTH-EAST NIGERIA

Oluka, Sussan (PhD) & Ideh, Nonso. F.
Department of Technology and Vocational Education, Enugu State, University of Science and Technology, (ESUT) Enugu, Nigeria. realchukwunonso@gmail.com

Abstract
The study determined the Entrepreneurship Training Strategies needed by Electrical/Electronic Technology Education EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in South-East Nigeria. It was guided by two purposes of studies, two research questions and two null hypotheses. The study adopted a census survey research design. The population was 45 EETE lecturers in the three colleges of education (technical) offering EETE programme in Anambra, Abia, and Enugu States. There was no sampling due to the manageable size of the population. The instrument for data collection was 21 items structured questionnaire based on the two research questions that guided the study. The instrument was validated, and the reliability of the instrument was determined using Cronbach Alpha which yielded 0.85. Mean, standard deviation and ANOVA were used to analyze the data. Specifically, the study identified activity-based method required by EETE lecturers towards sustainable skills development colleges of education (technical) students for job creation in the southeast of Nigeria. The findings of the study revealed that giving tasks to students based on what was taught in the class, giving a peer project work to the students, engaging the students through a co-operative work training, exposing the student to the work study of the industry are among the entrepreneurship training strategies needed by EETE lecturers. Based on the findings, the study recommended that there should be establishments of training programmes by the government to expose the EETE lecturers to the activity learning based training strategy and there should be collaboration between the institutes and industries to enable them create a working atmosphere for the students to compliment what they have learnt. However, the study concluded that sustainable skill development and job creation among the students of colleges of education (Technical) can be achievable through adoption of entrepreneurship training strategy by EETE lecturers. Thus, acquisition and sustainable development of skill is a key element in creation of job and self-employment.

Keyword: Skills Development, Job Creation, Electrical/Electronic Technology Education, Entrepreneurial Training Strategies

Introduction

Education is a key factor in the development of human and material resources which provide the needed manpower required for taping and utilizing the resources of the society. It determines the state of prosperity, sustenance of welfare and security of the people. Here in Nigeria, the quality of education has so fallen that those who pass through it, found it very difficult to obtain saleable employment in the formal sector and, cannot create jobs for themselves in the informal sector either. Meanwhile the attempt to combat these ugly trends in the society as well as improving the economic performance of the nation has got the attention of the government at all level, which had triggered their interest to tap dive into technical and vocational education.

Technical and Vocational Education (TVE) is a type of education designed to equip the learner with necessary competency for gainful employment (Obidile, 2018). One can say that Technical and Vocational Education (TVE) is a type of education programme whose objectives is to equip its recipients with theoretical knowledge and skills required in a particular occupation. However, the main purpose of introducing Technical and Vocational Education (TVE) into the education sector in Nigeria was to produce craftsmen, master craftsmen and professionals, (Education Policy, Federal Republic of Nigeria, 2012). In the tertiary level, Technical and Vocational Education (TVE) is an umbrella which covers so many areas which includes; Agricultural Education, Home Economics, Business Education which comprises Office Technology and Management (OTM), Accounting Education, Commerce and Cooperative Education, Computer Education, Distributive/Marketing Education, Industrial and

Technology Education which comprises Mechanical Technology Education, Building Technology Education, Woodwork Technology Education and Electrical Electronics Technology Education (Obidile, 2018).

Electrical/Electronic Technology Education EETE is one of the core areas of specialization in the technical education programme, which prepares learners for teaching and industrial engagements, through the provision of knowledge, skills, and attitudes desirable in the world of work (Chukwuedo & Omofonmwan, 2013; Iliya, 2011). Electrical/electronic technology is a subject area that involves the teaching of some abstract concepts such as atomic structure, flow of electrons, power generation, transmission and distribution, circuit design, electromagnetism, logic gates, circuit theory, amplifiers among others (Ogbunaya & Efuwape, 2018). Thus, Electrical/Electronic technology education undergraduate students become technologist after graduation.

Electrical/Electronic technologist frequently work as members of engineering team in the areas of installation, maintenance, manufacturing, product development and other applications of Electrical/electronic products and devices (Ohanu & Ogbuanya 2018). However, the graduates of this programme can as well be employed as professional teachers or instructors in schools offering electrical/electronic trade programmes, technicians and as well be entrepreneur/consultant which help in supplying the rightful materials needed for both domestic and industrial installation in other to minimize the occurrence of fire outbreak in the installation (Oluka and Ideh, 2021). Thus, this type of education is geared towards acquisition of skills for effective development, rendering of services, job creation, and it calls for effective entrepreneurship training strategies.

Training is the process of giving an information and knowledge, through speech, written word or other methods of demonstration in a manner that instructs the trainee (Talentlms, 2020). However, the transition of training into the multi-tasked activity might have been necessitated by the increasingly declining rate of the students` performance in Nigeria and its threat to the nation's industrial development. It then means that many factors have contributed to these trends; from the school environment to leadership style in school and teachers' teaching method. It is also observed that the displacement as a result of humanitarian crises in Nigeria and its aftermath consequences on the education system, lack of interest and zeal in students' part also contribute to the students' performance after school.

Thus, Training can take place in different locations which colleges of education (technical) are one of them. Different colleges of education (technical) have been established by the government in the southeast of Nigeria, which have qualified lecturers comprising of male and female lecturers. Thus, realizing the urgent need to adopt strategies in empowering the EETE students with knowledge and appropriate skills to improve their chances of getting employed and creating jobs after graduation, EETE lecturers is to adopt an entrepreneurship training strategy suitable for the programme.

Strategy is a high-level plan to achieve one or more goals under conditions of uncertainty (Barad, 2017). Entrepreneurship training strategy is referred as methods, procedures, techniques and processes employed by lecturers in imparting, developing relevant and appropriate skills in students to equip them to be self-reliant in the work area of their choice. This type of training is practical oriented in nature and colleges of education (technical) lecturers is to apply sustainable strategies in training the EETE students for their skills acquisition and development which will equip them for job creation and sustainable self-employment after graduation. Job creation according to Umar (2011) is the process of providing new jobs especially for people that are unemployed, providing for one own job and making job available for others. However, through the application of this training strategy the students' acquired skills can be enhanced which leads to a sustainable skill development.

Sustainable development is the organizing principle for meeting human development goals at the same time sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend (Evers, 2018). Thus, sustainable skills development of the students can be said to be the act of improving the students' skills, giving them opportunities to achieve their aspirations and potential over a period of time. However, achieving a sustainable skills development of the students is dependent on the level of human capital development and availability of a functional education programmes. Hence, to achieve a sustainable skill development of the colleges of education (technical) students, EETE lecturers is to adopt entrepreneurship training strategies. The entrepreneurship training strategies needed by EETE lecturers for sustainable skills development of colleges of education (technical) students and job creation include; activity learning

based and School-Industry partnership training strategy.

Activity Learning Based Training Strategy is a kind of training method which engages student to participate actively in the learning experience rather than sitting as passive listeners. Activity-based learning involves reading, writing, discussion, practical activities and engagement in solving problems, analysis, synthesis and evaluation (Hansraj, 2017). This method/strategy is imperative in successful learning, and has been proved that the more the students senses are stimulated, the more the student understand and retain the concept. Thus, the sensory experience and action make education better and more impactful (Shahram, 2018).

However, the use of the activity-based method in the training process can be said to boost a desirable change in students' role from active to participative learners. Hence, one can say that activity base training strategy enhances the cognitive, affective and psychomotor domains of the learner respectively through experimentation and exploration. Thus, activity learning based strategy requires problem solving by students in finding patterns in the information through their own investigation, analysis and with constant practice in the processes. However, students not only learn the content of the lesson but also develop many other skills in the process. In this strategy, teachers are actively involved in directing and guiding the students' analysis of the information. Thus, the activity-based training strategies alone may not yield the desired result if the school -Industry partnership strategies are not considered.

School Industry Partnership Strategy is a strategy where the government institutions and industries have an understanding to collaborate in area of skill training to the students. School industry partnership strategy is said to be an instructional method whereby the practical skills and knowledge acquired in the classroom, school laboratories and workshops are up-dated, beefed up and strengthened through real hands-on experience on real industrial tools, machines and equipment, (Buligina and Sloka, 2016).

Basically, the school industry partnership provides activities such as, soft skills training, innovative training, use of facilities, students directed projects, software development or mandatory research. However, the objectives of this training strategy can be achieved through conferences, workshops programmes, seminars and field trip. In this partnership, the Industry potentially provides access to resources that are beyond the financial capacity of schools. These resources include equipment that is industry standard, which is in contrast to simple options available in school laboratories and workshops as well as personnel who are experts in their respective fields (Watters and Christensen, 2013). This could equip the graduates with skills to be employed, become self-employed and creating of jobs.

In the school industry partnership, the responsibilities of schools include; planning in cooperation with industries where training should be carried out, evaluation of students to find out the extent to which they have acquired skills they are supposed to acquire, supervision of students during training in industry based environment (Watters and Christensen, 2013). According to them, the function of industries includes: assessment of training resources of institution to find out if the institutions are capable of giving the students adequate training and background on those occupations required in the industries.

Industries is to assist the teachers/instructors in carrying out research work by allowing them to use their high technology laboratories, working on industrial machinery to upgrade their knowledge and skills as well as to keep abreast with new technologies (Ogbuanya & Tongshuwal, 2020). According to them, Industries had a great influence on the school curriculum with the aim of better aligning future employees with the needs of industry. School- industry partnership-based training strategies needed by EETE lecturers in the skill development of students of colleges of education (technical) include; involving the industry personnel in evaluating the student's relevant learning experience acquired in school and exposing the students to the industry operations, use of industry work tools and mechanics.

Thus, if these training strategies are adopted by the EETE lecturers in training the students of Colleges of Education (Technical), it will aid in the sustainable skill development of the students for job creation and sustainable employment. It is against this background that the researcher sought to determine the Entrepreneurship Training Strategies needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in South-East Nigeria.

Statement of the Problem

The study addresses the need to adopt an Entrepreneurship Training Strategies by EETE lecturers for the students' skill development for self-reliant and job creation. However, it has been observed that a good number of the products of EETE Colleges of Education

Technical in the South-Eastern State of Nigeria roam round the street in search of employment after graduation and that the employers found them unemployable because they lack the necessary skills required of them to perform effectively in the fields of work. This ugly trend could be attributed to the training strategies utilized by their lecturers in training the students while they are still in school, as a result of work load on the lecturers and lack of partnership between the school and the industry. Thus, these have contributed to the ill training of EETE students in these institutes, thereby deterring the EETE student's skill development. However, this situation has led to the present unemployment crises in south-eastern state of Nigeria, which had made it difficult for EETE students to gain employment in the formal sector and create jobs in the informal sector.

Thus, if something is not done to avert this situation, the skill development of the EETE students will be grossly impeded, which will mar their interest and confidence towards the real work situations, thereby deterring the realistic learning which will lead to high increase of unemployment and lack of job creation. To adequately equip EETE students, the lecturers must as a matter of fact utilize a sustainable entrepreneurship training strategy to enhance their professional practices and instigate it in the students' skill development. Consequently, the study therefore, sought to determine the Entrepreneurship Training Strategies needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in South-East Nigeria.

Purpose of the Study

The main purpose of this study was to determine the Entrepreneurial Training Strategies needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria. Specifically, the study sought to determine the;

1. Activity Based Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the south-East Nigeria.
2. School-Industry Based Training strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the south-East Nigeria.

Research Questions

The following research questions were formulated to guide the study;

1. What are the Activity Based Training Strategies needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the south-East Nigeria?
2. What are the School-Industry Based Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance;

1: There is no significant difference in the mean ratings of EETE male and female lecturers on Activity Based Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria.

2: There is no significant difference in the mean ratings of EETE male and female lecturers on School-Industry Based Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in South-East Nigeria.

Literature Review

In the training of colleges of education (technical) students, the lecturer is to analyze the need of the learner, what he had learnt, his growth so far and the development characteristics of the learner in general. Thus, EETE lecturer having knowledge of the pattern of human development makes it possible for them to know what to expect of a learner and what the learner is to learn either physically or intellectually at a given stage. However, skill development is useful in training of EETE students because it helps the lecturers in identifying, discovering the educational objectives and assisting the students achieve mastery of educational task. In this regard, the colleges of education (technical) lecturers are to incorporate into the learning experience, which shed light on the skill development of the students. Since the relevance of what is learnt in school and its applications in the world of work have been the concern of technical and vocational education, the lecturer is to apply the entrepreneurship training strategy which will help the students to acquire the necessary knowledge, skills, development of the acquired skills, abilities both mental

and physical as necessary for the individual to live and contribute to the development of the society.

Sustainable Skill Development of Students of Colleges of Education (Technical)

Sustainable development according to Evers, (2018) is the organizing principle for meeting human development goals at the same time in sustaining the ability of natural systems to provide the natural resources and ecosystem services upon which the economy and society depend. However, one can say that the aim of sustainable development is to help in achieving social progress, environmental equilibrium and economic growth (Gossling-Goidsmiths, 2018; Zhai & Chang, 2019). Therefore, sustainable skill development of Students of Colleges of Education (Technical) is aimed at looking for a better way of handling things critically, skillfully and technologically most especially in EETE both for future and the present, which prepares the students to compete favorably with their counterparts globally. However, EETE reflect development of her recipients to face and resolve the global challenges which ultimately become proactive contributors of a more just, peaceful tolerant and a skillful product. In other to achieve a sustainable skill development amongst EETE students, colleges of education (technical) are to engage their students through a task activity learning method.

Activity- Learning Based Training Strategy Influence on the Students' Skill Development

Activity-Based training strategy is a strategy adopted by an instructor to facilitate instruction in form of task, thereby allowing the learners to participate absolutely, which bring in an efficient learning experience among the learner. Activity-based learning is mode of learning which involves reading, writing, discussion, practical activities and engagement in solving problems, analysis, synthesis and evaluation (Hansraj, 2017). One can say that Activity-Based learning is a technique in which the learner is actively engaged mentally and physically. Thus, this mode of learning is rooted on the core premise that learning should be based on doing some hands-on experiments and activities rather than just listening to lessons. However, learning by doing is the fundamental focal point in this method; and the more a person knows, longer he/she retains (Minje, 2013).

Thus, some literatures have reported to have supported the activity-based method on its significant benefits to the students' skill development. Hence, Ajayi (2017) studied the Effect of activity-based method on senior secondary students' interest in organic chemistry. The study revealed that the students taught using hands-on activity-based had significantly higher mean interest scores than those taught using the discussion method. Also, Celik (2018) studied the effect of activity-based learning on sixth-grade students` achievement and attitude. The study revealed that activity-based method improves the students' academic achievements and attitudes towards activities.

Thus, this strategy is said to be grounded in constructivism and behaviorism theory. Constructivism theory has roots in physiology and psychology (Driscoll 1994). The constructivist thoughts confirm that, social interaction play crucial role in cognitive development (Piaget 1970; Vygotsky 1978). Hence, a very significant assumption under the constructivist school highlighted the role of the experience assuring that individuals better their learning through a tasks (Dewey,1997). This assumption has it that when the learner is involved in an activity, he/she will learn gradually the meaning of the concept and he/she can do his/her own role that ensures understanding. Implication of the constructivist school theories emphasizes comprehension instead of memorization. Also, it encourages group cooperation rather than individualized learning and it motivates the learners via providing simulation for real-life situations.

However, another theory that supports activity-based strategy is the behaviourism assumption, which introduces the reflexive reaction to stimuli as behaviour which comes directly from organism brain (Watson 1924). He concluded that, all learning takes place due to responses to environmental stimuli. Thus, learning through this theory requires two factors; frequency, when number of associations is repeated and increased, the bond becomes stronger. In essence, this theory proposes that learning happens due to the accumulation
of habits. However, the school-based activities should be naturally complemented with the industry-based activities.

School Industry Partnership Training Strategy Influence on the Students Skill Development

Industry is a sector of the economy consisting of a tendency to work persistency with material to make or produce goods (Nungse, Ugwoke, Ogbuanya, & Shetima, 2020). School Industry partnership training strategy is a kind of collaboration between the school and industrial sector tocreate an enabling training environment which will aid the students in acquiring on the job experiences, knowledge, skills and appropriate attitude to work to

complement what was done in the classroom. However, the Industries which is in collaboration or cooperation with the schools is to provide work-based learning activities such as internship, on-the-job training, mentoring and cooperation education (industrial attachment) to expose students to new technologies for sustainable skill development. Rossi (2010) stressed that industries through collaboration with schools could be made to meaningfully contribute towards the training of students in appropriate and contemporary skills that relate to their interest. However, this is particularly important in the development of capabilities needed for good occupational adjustment. Therefore, Colleges of education (technical) students is to be engaged in a training environment that is a replica of the work environment for skill development.

Thus, encouraging joint development projects initiative between school and industry encourages student skill development through industry-oriented experiences. In Nigeria, there are industries that have highly skilled human agents in production, functional facilities in cutting edge technologies and raw materials that are useful for the development of employable skills (Nungse, Ugwoke, Ogbuanya, &Shetima, 2020). Therefore, it is imperative for industries to become actively involved in training students to complement classroom experience in order to acquaint them with skills for practical teaching and employment in industries after graduation.

Research Methods

The study employed a census survey research design. A census research design is a complete enumeration of all items in the population (Kothari, 2004). A census survey research design was used, because the entire population of the study is manageable and utilize for the study. Census research design is suitable for the study since the number of Colleges of Education Technical is limited in the area of the study. The population for the study comprised of 45 respondents which made up of 35 EETE male and 10 female lecturers.

The study made use of a structured questionnaire developed by the researcher for the collection of data. The questionnaire titled Entrepreneurial Training Strategies Needed by EETE Lecturers for Sustainable Skills Development of students of colleges of education (technical) and job creation in the southeast of Nigeria (ETSNEETELSSD) was made up of two parts, 1 and 2.Part I, collected the respondents bio-data while part 2 constitutes 21 item statements produced after extensive literature review divided into section A, B &C according to the 3 research questions that guided the study. A four-point rating and weighted values were applied to each item in section A - B respectively as; Strongly Agree (SA)-4; Agree (A)-3; Disagree (D)- 2 and Strongly Disagree (SD) – 1.

The instrument for data collection was subjected to face validation using three experts; two experts were from Electrical Electronics Technology option in the department of Technology and Vocational Education and one expert from Measurement and Evaluation option in the Department of Mathematics and Computer Education from Enugu State University of Science and Technology, Enugu all from faculty of education. They read the copies of the instrument, checked the contents and clarity and suitability of the items in answering the research questions that guided the study, and also in testing the null hypotheses in the study. Their comments, corrections and suggestions contributed in the modification and production of the final drafting of the instrument use by the study.

The reliability of the instrument was determined using Cronbach Alpha. The reliability index arising from this method achieves a degree of internal consistency of the instrument; it yielded a reliability coefficient of 0.75, indicating that the instrument is reliable and suitable for data collection for the study. 55 copies of the questionnaire were administered by hand to the male and female lecturers of EETE by the researcher with the help of three research assistants and guided them on how to successfully administer the questionnaire to the respondents and help them properly fill and complete the questionnaire and collect them back. The researcher and his assistant administered the questionnaire to the respondents and collected them back by hand after completion. Out of 55 copies of the questionnaire that was administered 45 were filled and retrieved. Hence there was 82% return rate, and same number was used for data analyses of the study.

Data collected for the study were analyzed using relevant statistics. Weighted mean and standard deviation were used to answer the research questions. Decisions on the research questions were made using the lower and upper limits of the mean based on a four-pointrating scale. The standard deviation was used to determine the homogeneity or otherwise the opinions of the respondents. The Analysis of Variance (ANOVA) was used to test the null hypotheses. The analysis was carried out using Statistical Packages Social Science (SPSS). The significant value (at 2-tail) was compared with .05 level of significant at the appropriate degree of freedom. The null hypothesis was not rejected when the

significant value was less than the .05 level of significance and at appropriate degree of freedom; otherwise the null hypothesis was rejected.

Results

The results of the study are presented according to the research questions and hypotheses that guided the study.

Research Question 1

What are the Activity Learning Based Training Strategies needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria?

Table 1:

Respondents' mean ratings and standard deviation on the activity learning based training strategy needed by EETE lecturers for sustainable skills development of students

S/N	activity learning based training strategy needed by EETE lecturers for sustainable skills development include:	Overall		Decision
		X_G	SD_G	
1	Engaging the students in the general workshop practices	3.54	0.75	Strongly Agree
2	Giving tasks to students based on what was taught in the class	3.05	0.73	Agree
3	Giving a peer project work to the students	2.97	0.75	Agree
4	Designing a practical problem from the real-life question that covers the area the teacher has taught	2.99	0.77	Agree
5	Giving a class activity that encourages collaborative effort	3.00	0.76	Agree
6	Engaging the students in the content that will develop their business initiative	3.03	0.77	Agree
7	Engaging the students in an activity that allows them think deeply which prompts them to ask question	3.06	0.76	Agree
	Cluster Mean/SD	**3.09**	**0.76**	**Agree**

Note: **X = Mean; SD =Standard Deviation**

The analysis of data presented in **Table 1** shows that the overall mean ratings for item one is 3.09 indicating strongly agree. The remaining 7 items mean rating range from 2.97 to and 3.54 showing agree. This means that the items are the Activity Learning Based Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria. The cluster low standard deviation of .76 indicates that the respondents have relatively similar opinion itemized measures.

Hypothesis 1

There is no significant difference in the mean ratings of EETE male and female lecturers on Activity Learning Based Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria.

Table 2:

Summary of One-way ANOVA on the mean ratings of EETE Male and Female Lecturer on activity learning based training strategy needed by EETE lecturers for sustainable skills development of students of colleges of education (Technical)

Male and Female Lecturer	Sum of Squares	df	Mean Squares	F	Sig	Decision
Between Groups	129.235	2	64.618	1.864	.178	NS
Within Groups	797.111	43	34.657			
Total	926.346	45				

S= Significant; NS= Not Significant

The result of analysis of variance (ANOVA) in **Table 2** shows that the f values is 1.864 at .05 level of significant and degree of freedom between group is 2 and within group is 43 with significant value of .178. Since the significant values of .178 obtained is more than the .05 level of significant the null hypothesis for the items is not significant. This means that there is no significant difference regarding the mean ratings of EETE male

and female lecturers on Activity Learning Based Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria.

Research Question 2

What are the School-Industry Based Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria?

Table3:

Mean ratings and standard deviation on school-industry based entrepreneurship training strategy needed by EETE lecturers for sustainable skills development

S/N	School-industry based training strategy needed by EETE lecturers for sustainable skills development includes:	Overall		Decision
		$\overline{X}_G$	SD_G	
8	Engaging the students through a co-operative work training	3.27	0.74	Agree
9	Exposing the student to the work study of the industry	3.07	0.47	Agree
10	Engaging the student to student industrial work experience scheme SIWES	3.07	0.47	Agree
11	Student is to be doing research in partnership with the industry	3.22	0.42	Agree
12	Students are to be exposed to industrial operations, work tools and machine	3.22	0.42	Agree
13	Engaging the students in the industrial mentorship programme to complement their studies while in school	3.39	0.49	Agree
14	Student is to be exposed to the management structure of the industrial organization	3.24	0.58	Agree
15	Invitation of an industry experts to address the students during orientation	3.41	0.67	Agree
16	Involving the industrial experts in the curriculum development/review	3.29	0.73	Agree
17	Taking of students to relevant industrial cities	3.07	0.47	Agree
18	Hiring industrial specialist in coaching the EETE instructors on the new trends	3.07	0.47	Agree
19	Establishment of regular interactive sessions by EETE instructors and industrial specialist	3.21	0.43	Agree
20	Exposing the student to good work habit in their specialized areas	3.21	0.43	Agree
21	Cross training between the industries and lecturers	3.43	0.65	Agree
	Cluster Mean/SD	**3.23**	**0.53**	**Agree**

Note: **X = Mean; SD =Standard Deviation;**

The analysis of data presented in **Table 3** above shows that overall mean rating ranging from 3.07 to 3.43 showing agree. This means that the respondents agree to the items as the School-Industry Based Entrepreneurship Training Strategy needed by EETE lecturers for sustainable skills development. The overall cluster mean of 3.23 further indicates that the items are the School-Industry Based Entrepreneurship Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in South-East Nigeria.

Hypothesis 2

There is no significant difference in the mean ratings of EETE male and female lecturers on School-Industry Based Entrepreneurship Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in South-East Nigeria.

Table 4:
Summary of One-way ANOVA on the mean ratings of EETE male and female lecturers on school-industry based entrepreneurship training strategy needed by EETE lecturers for sustainable skills development

Male and Female EETE Lecturers	Sum of Squares	df	Mean Squares	F	Sig	Decision
Between Groups	195.440	2	97.720	1.633	.217	NS
Within Groups	1376.444	43	59.845			
Total	1571.885	45				

NS= Not Significant

The result of analysis of variance (ANOVA) in Table 4 shows that the f values is 1.633 at .05 level of significant and degree of freedom between group is 2 and within group is 45 with significant value of .217. Since the significant values of .217 obtained is more than the .05 level of significant the null hypothesis for the items is not significant. This means that there is no significant difference regarding mean ratings of EETE male and female lecturers on School-Industry Based Entrepreneurship Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria.

Major Findings

The following are the Activity Learning Based Training Strategies needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation include; Engaging the students in the general workshop practices, giving tasks to students based on what was taught in the class, giving a peer project work to the students, designing a practical problem from the real life question that covers the area the teacher has taught, giving a class activity that encourages collaborative effort, engaging the students in the content that will develop their business initiative and engaging the students in an activity that allows them think deeply which prompts them to ask question.

Hence the study further found that the School Industry Partnership Training Strategies needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation to include, engaging the students through a co-operative work training, exposing the student to the work study of the industry, engaging the student to student industrial work experience scheme SIWES, student is to be doing research in partnership with the industry, students are to be exposed to industrial operations, work tools and machine, engaging the students in the industrial mentorship programme to complement their studies while in school, student is to be exposed to the management structure of the industrial organization, invitation of an industry experts to address the students during orientation, involving the industrial experts in the curriculum development/review, taking of students to relevant industrial cities, hiring industrial specialist in coaching the EETE instructors on the new trends, establishment of regular interactive sessions by EETE instructors and industrial specialist, exposing the student to good work habit in their specialized areas and cross training between the industries and lecturers.

Discussion of Findings

The findings of this study were discussed according to the research questions answered and hypotheses that guided the study under the following headings.

Activity Learning Based Training Strategy Needed by EETE Lecturers for Sustainable Skills Development of Students of Colleges of (Technical) and Job Creation in the Southeast of Nigeria

The fact that the good number of the Colleges of Education (Technical) products in the southeastern State of Nigeria roam round the street in search of employment after graduation and that the employers found them unemployable because they lack the necessary skills required of them to perform effectively in the fields of work, indicates the need to adopt an activity learning based training strategy in training them. Thus, Shahram, (2018) pointed out that the sensory experience and action makes education better and more impactful.

Thus, the result of data analysis reviewed the Activity Learning Based Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in southeast Nigeria. However, the study revealed that the EETE lecturers needs to engage the Colleges of Education (Technical) students through the general workshop practices, giving tasks to students based on what was taught in the class, giving a peer project work to the students, designing a practical problem from the real life question that covers the area

the teacher has taught, giving a class activity that encourages collaborative effort, engaging the students in the content that will develop their business initiative and engaging the students in an activity that allows them think deeply which prompts them to ask question. This is in line with Minje, (2013) who noted that learning by doing is the fundamental focal point in this method; and the more a person practice and the longer he/she retains.

The result of null hypothesis showed that there was no significant difference in the mean ratings of EETE male and female lecturers on Activity Learning Based Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria. This indicated that gender difference of the EETE lecturers had no significant influence on Activity Learning Based Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria.

School-Industry Based Entrepreneurship Training Strategy Needed by EETE Lecturers for Sustainable Skills Development of Students of Colleges of (Technical) and Job Creation in the Southeast of Nigeria

The study also revealed that the EETE lecturers needs to engage the Colleges of Education (Technical) products through a co-operative work training, exposing the student to the work study of the industry, engaging the student to student industrial work experience scheme SIWES, creating an atmosphere for the student to carry out research in partnership with the industry, exposing the students to industrial work operations, work tools and machine, engaging the students in the industrial mentorship programme to complement their studies while in school, exposing the student the management structure of the industrial organization, invitation of an industry experts to address the students during orientation, involving the industrial experts in the curriculum development/review, Taking of students to relevant industrial cities, Hiring industrial specialist in coaching the EETE instructors on the new trends, Establishment of regular interactive sessions by EETE instructors and industrial specialist, Exposing the student to good work habit in their specialized areas and Cross training between the industries and lecturers.

This suggests that a sustainable entrepreneurship skill along with skill training, is a major ingredient for skill acquisition and development for job creation and sustainable self-employment. This encourages a joint collaboration in development projects initiative between school and industry instigating student skill development through industry-oriented experiences. This is in line with Rossi (2010) who stressed that industries through collaboration with schools could be made to meaningfully contribute positively towards the training of students in appropriate and contemporary skills that relate to their interest. The gender difference of the EETE lecturers had no significant influence on School-Industry Based Entrepreneurship Training Strategy needed by EETE lecturers for sustainable skills development of students of Colleges of Education (Technical) and job creation in the South-East Nigeria. Therefore, the identified School-Industry Based Entrepreneurship Training Strategy should be considered in achieving sustainable skills development of students of Colleges of Education (Technical) for job creation in the southeast of Nigeria.

Conclusion

Based on the findings of the study, sustainable skill development and job creation among the students of Colleges of Education (Technical) can be achievable through adoption of Entrepreneurship Training Strategy by EETE lecturers. Adoptions of these strategies by EETE lecturers will help in enhancing their professional practices and engaging the students on hands-on experiments and activities which will contribute effectively to the acquisition and sustainable development of skill. It then means that acquisition and sustainable development of skill is a key element in creation of job and self-employment.

Recommendations

Based on the findings of the study, the following recommendations were made;

1. There should be establishments of training programme by the government to expose the EETE lecturers to the activity learning based training strategy.
2. There should be collaboration between the institutes and industries to enable them create a working atmosphere for the students to compliment what have been learnt in the classroom.

Reference

Aina, J.K. & Akintunde, Z.T. (2013). Repositioning science education in Nigeria colleges of education through public-private partnership. *Science Journal of Education* 1 (5), 64-67.

Alexanderia, V., Brent, P. &Alicia, B. (2014). *Entrepreneurship education and training programs around the world: Dimensions for success*. The World Bank, Washington DC.

Ajayi, V. O. (2017). Effect of Hands-on Activities on Activity-Based Method on the Interest of Senior Secondary Students in Organic Chemistry. *Scholarly Journal of Education* 6(1), 1- 5.

Buligina, I., & Sloka, B. (2016). Strategic partnerships for the development of competitive labor force through vocational education and training. *Entrepreneurship Business and Economics*, 3(1), 229–244.

Celik, H. C. (2018). The Effects of Activity Based Learning on Sixth Grade Students' Achievement and Attitudes towards Mathematics Activities. *EURASIA Journal of* Mathematics*, Science and Technology Education*, 14(5), 1963-1977.

Chukwuedo, S. O. & Omofonmwan, G. O. (2013). Information and communication technology: The pivot of teaching and learning of skills in electrical and electronics technology programme in Nigeria. *International Journal of Vocational and Technical Education*, 5(6):117–123.

Dewey, J. (1997). *Experience & education*. New York: Touchstone.

Driscoll, M. P. (1994). *Psychology of learning for in instruction*. Massachusetts: Allyn & Bacon

Evers, B. A. (2018). Why adopt the Sustainable Development Goals? The case of multinationals in the Colombian coffee and extractive sector: *Master Thesis Erasmus* University Rotterdam

Ezener, R. A. (2011). Evaluation of NBTE New Office Technology and Management Curriculum for Nigerian Polytechnic. An Analysis of Entrepreneurship Development, Nigeria. *Business Education Journal (ABEN*). Retrieved at www.thenigerianvoice.com/nvnews/458

Gossling-Goidsmiths, J. (2018). Sustainable development goals and uncertainty visualization. *Thesis submitted* to the Faculty of Geo-Information Science and Earth Observation of the University of Twente in partial fulfillment of the requirements for the degree of Master of Science in Cartography.

Hansraj, M. (2017) Activity -Based Teaching-Learning Strategy in Language. *Scholarly Research Journal for Humanity Science & English Language*. Vol. 4 (20)

Iliya, M. U. 2011. The role of information and communication technology in technical and vocational education. *Journal of Teacher Education*, 1(4):15–17.

Iweala, N. O. (2012). *State of education. The Nation*. Thursday, July 12, 2012 p.38.

Kothari, K.R (2004). *Research Methodology, Methods and Techniques*. New Age International (P) Limited, Publishers, New Delhi – 110002. Available at: https://ccsuniversity.ac.in/bridge-library/pdf/Research-Methodology-CR-Kothari.pdf

Mbah, C. O., Obi, C. U., & Ehimen, T. E. (2018). Improving School-Industry partnership in skill development of TVET students for matching skill demand in Anambra State. Conference paper held on 20th-3rdjune,2018, *A Paper Presented at the 2nd Annual National Conference of Centre for Technical and Vocational Education*, *Training and Research* (CETVETAR). University of Nigeria, Nsukka

Minje, M. S. (2013) Teaching Strategy. Retrieved from *http://dorjigss.blogspot.com*

Nungse, N. I., Ugwoke, C. K., Ogbuanya, T.C & Shetima, A. (2020). Enhancing School-Industry Collaboration for Effective Skill Development of Technical Education Students in South-East Niger. *Vocational and Technical Education Journal* (VOTEJ) 2(1),

Nweke, C.E, Mkpa, M.A, Ezeabii, I.J(2020). Entrepreneurial Training Strategies Adopted by Lecturers in Developing Business Abilities in Nigeria University Students. *International Journal of Research and Innovation in Social Science* (IJRISS) 4(1).

Ogbuanya, T.C. & Efuwape, B.M. (2018). Technology-aided learning environment: An investigation into electrical/electronics students' instructional preferences, attitude and approaches to learning. *South African Journal of Education*, 38(2),

Ogbuanya, T.C & Tongshuwal, J. M. (2020). Improving Skill Acquisition of Electrical

Installation and Maintenance Work Students through Collaboration between Technical Colleges and Industries in Plateau State. *Vocational and Technical Education Journal (VOTEJ)* 2(2).

Ohanu, I.B & Ogbuanya, T.C (2018). Determinant factors of entrepreneurship intention of electronics technology student in Nigerian university. *Journal of global Entrepreneurship Research* 8 (38) 23-34

Oluka, S.N & Ideh, N.F (2021). potentials of entrepreneurship education for sustainable self-employment among the graduates of electrical/electronics technology education in Anambra State. *International Journal of Innovative Social & Science Education Research* 9(4),127-135.

Piaget, J. (1970). *Science of education and the psychology of the child*. New York: Viking.

Pinta, J.A & Benue, F.S(2014). Developing Entrepreneurship Skills Through Infusion and Integration of Entrepreneurial Strategies in Classroom Practices. *https://www.unn.edu.ng*

Prem, L. (2012). Teaching strategy: Activity based teaching method. Retrieved on from *www.progressiveportfolio.Blogspot.com*

Rossi, F. (2010). The governance of University-Industry knowledge transfer. *European Journal of Innovation Management*,13(2), 155-171

Shahram, W. (2018) Why Entrepreneurs Need to Use Activity Based Learning Method in Education. *International Franchise of Entrepreneur Media*, India

Vygotsky, L. (1978). *Mind in society: the development of higher psychological processes*. Cambridge: Harvard University Press.

Watters, J, & Christensen, C 2-5 July, 2013. Vocationalism in science and technology education: Aligning school curricula with workplace needs. *Paper presented at the 44th Australasian Science Educators Research Association Conference*, Te Papa Tongarewa; Wellington, New Zealand.

Yahaya, U. (2011). *Why we set up entrepreneurship*. The Nigeria Voice.

Zhai, T. T., & Chang, Y. C. (2019). Standing of environmental public-interest litigants in China: Evolution, obstacles and solutions. *Journal of Environmental Law*, 30, 369–397. doi:10.1093/jel/eqy011