



***Self-Perceived Assessment of Employability Skills and  
Development Opportunities for B. (Technology)  
Education Students in Kaduna State***

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***Abstract***

*This study aimed at assessing self-perceived assessment of employability skills and development opportunities available for B.(Tech) Education students in Kaduna Polytechnic, Kaduna Nigeria. Four research questions were formulated to guide the study. Descriptive survey design was used for the study. A structured questionnaire used in a similar study was adapted as tool for data collection (Orji, 2013). The tool comprised of three sub-scales. Section A consisting of 32 items gathered data on 10 employability skills categories. Section B and C consisting of 23 and 12 items respectively gathered data from the TVET lecturers on employability skills enhancing activities and sense of efficacy. All the sub-scales were measured based on 5-point rating format. The tool produced internal reliabilities of .930, .880 and .925 respectively computed via Cronbach alpha method. The collected data were analyzed using descriptive statistics. The research findings reveal that the students perceived employability skills competency was very*

*good in the 10 skills components. The TVET lecturers provided a lot of opportunities and activities towards developing employability skills among their students. Equally they had a very high sense of efficacy towards the enhancement of their students employability skills Based on this, recommendations were suggested among which is Management of tertiary institutions should continue to provide conducive environment that will enhance acquisition and development of employability skills by the students. TVET lecturers, instructors and technologists should equally provide enriching activities and tasks, challenging enough to develop student's competency in numeracy and information retrieval skills.*

**Keywords:** *Self-perceived, employability skills, development, opportunities, B.(Tech) students*

## **Introduction**

Technical and Vocational Education and Training (TVET) is broadly defined as education which is mainly aimed at teaching participants to acquire the practical skills, know-how and understanding necessary for employment in a particular occupation, trade or group of occupation (Atchoereria & Delliac, 2001). In Nigeria, the National Policy of Education (NPE, 2003) viewed Technical and Vocational Education as a comprehensive term referring to those aspect of educational process involving in addition to general education, the study of technologies and related sciences and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in

various sectors of economic and social life.

Education in general and Technology Education in particular are regarded as veritable tools par excellent for sustainable national development and global competitiveness. They enable people to compare and contrast as well as compete favorably with the best of the world and it has long standing relationship with the economy. Toland (2011) expressed that an adequate supply into the labor market of graduates with viable skills underpins a nation's ability and capability to position it against global competitions and increase its capacity for innovation and enterprise. It is in this context that nations, both developed and developing are investing huge

human and material resources in education that should produce highly self-reliant, confident and competent graduates.

There is a renewing focus and concern on development of functional and technical skills as well as work-related competency among the youth, either within or outside the school systems. All stakeholders in education that include parents, administrators, curriculum experts and implementers as well as employers of labour are concerned about graduate acquisition and possession of skills relevant to today's 21<sup>st</sup> century world of work. Though students may have acquired necessary specific skills, graduated with a good grade and awarded certificates, it is not sufficient for them to be employed. Employers of labor are expressing series of concerns and dissatisfaction with graduates overall work-related skills and preparedness for job/task. Buttressing further Parker (2011) and Dixon (2013) cited by Orji (2013) posit that while lamenting graduates unpreparation to compete for existing jobs, they indict Colleges and Universities for not teaching students basic skills that lead to critical thinking. Graduating students need to learn alongside academic studies, attributes, qualities, character and life skills which consist of developing self-esteem, self-confidence, self-concept, interpersonal skills, self-assessment and ability to cope with the real world of work.

It is imperative to note at this juncture that this concern for graduates, skillfulness and readiness for the world of work has lead to the constructs of "employability" and "employability skills" which cuts across different field of professional studies and career enterprises.. The constructs had indeed attracted the attention of researchers and scholars internationally and locally. Researchers and scholars like Yorke (2005), Yorke and Knight (2006) and Toland (2011) have provided various conceptualization of employability. According to York (2005), employability refers to a graduate's achievement and his/her potential for obtaining and succeeding in graduate-level job placement. York further clarified that employability connotes a graduate "potential to obtain a job, and should not be confused with the actual acquisition of a graduate job" (p2).

York and Knight (2006) defined employability as "a set of achievements - skills, understanding and personal attributes that make graduates more likely to gain employment and be successful in their chosen occupation..."(p8). While Martin, West and Bill (2001) opined that gaining employability skills should be seen as a "a continuum of learning that supports job progression, not just entry

into the work force”. Anindo, Mugambi and Matula (2016) citing Marilyu (2008) suggest that employability is about being capable of getting and keeping fulfilling work. More comprehensively, employability is the capabilities to move, self-sufficiently within the labor market to realize potential through sustainable employment. Related to this research, the Bachelor of Technology Education students should be capable of getting and keeping a fulfilling teaching job or get him/her capable of performing work-related activities thereby employing oneself in a profitable venture. Anindo, et al (2016) further proposed that employability consist of some elements namely (i) a person’s “employability assets” which consist of their knowledge, skills and attitudes, (ii) “development” which includes career management skills and job search skills, (iii) presentation which is concern with job getting skills, for example CV writing, work experience and interview techniques. They also emphasized that for a person to be able to make the most of their “employability assets”, a lot depends on their personal circumstances (for example family, responsibilities) and external factors (for example the current level of opportunity within the labor market).

According to Toland (2011) employability skills are non-discipline specific, economically reliable skills required to get initial employment, progress in a job, as well as securing another job when desired. Furthermore, Robinson (2000) sees employability skills as those basic skills necessary for getting, keeping and doing the job well. While Yorke and Knight (2003) defined employability skills as a set of achievement skills, understanding and personal attributes that makes graduates more likely to gain employment and be successful in their chosen occupation, which benefits themselves, the workforce, the community and economy. Thus, in this study employability skills refers to the set of skills, competency and attributes that increase Bachelor of Technology Education student-teachers chances of obtaining initial worthwhile employment, maintaining and progressing in the employment, obtaining new employment if required/desired and being satisfied on the job.

Agreement on the “set of skills” competency or attributes that constitutes employability skills have been a serious and controversial concern to various studies, institutions and researchers alike. Highlighting on this issue, Martin et al., (2008) posit that “the employability landscape is complex...”(P1), and the skills needed for employability depend on many multidimensional factors such as job type, industrial sector and career stage. These factors thus makes it

difficult to create or develop one universally relevant definition or list of employability skills, for the number of skills vary from one researcher to another. Marin et al., (2008) in Orji (2013) however identified and based their research on 14 employability skills that include communication, team working, problem-solving, literacy, numeracy, general information technology (IT), time-keeping, business awareness, customer care, personal presentation, enthusiasm/commitment, enterprising, vocational job-seeking and advanced vocational job-specific skills. Careers and Employability Centre, Loughborough University (n.d) described employability skills as the professional competency sought after by employers which they students are helped to develop alongside subject/discipline. These skills are eight in numbers that include analytical and problem-solving skills, numeracy, confidence, time management, team-working, communication skills, information technology and monitoring skills. While the Placement Career Centre of Brunel University London (n.d) clearly identified and itemized 9 employability skills thus: communication, self-reliance, organization, initiative and enterprise, commercial awareness, problem-solving, team work and leadership, time management and customer service. According to Learner (2012), eight naturally employability skills are agreed for Austria, that include communication, planning and organizing, team work, problem-solving, self-management, initiative, enterprise, technology and learning.

**Development Opportunities for Employability:** One big challenge facing the 21<sup>st</sup> Century employability skills is opportunities for students in tertiary institutions to develop these skills. The ultimate goal of tertiary education is for the acquisition of knowledge, attitude and employable skills for sustainable development. The acquisition of life-long employable skills by the Bachelor Technology Education students calls for effective and efficient teaching methods, utilization of improved and standard instructional equipment, relevant and update curriculum and good quality of lecturers, instructors and technologists. Providing credence to this assertion, Orji (2013) posit that helping develop employability skills is vital for coping with today's socio-economic realities. Researchers, employers of labor, educationist, curriculum designer and implementers as well as education providers, NGOs inclusive are devising strategies, techniques and better procedures capable of promoting development of soft, transferable or employability skills. McGrath (n.d) asserts

that students employability skills will improve by maintaining a working harmonious relationship/interaction between institutions and employers, understanding of industrial realities, work placement for staff and students as well as adapting new approach to teaching and learning that highlights core skills and attitudes, job seeking skills and a repacked set of technical and occupational skills.

Emphasizing further, Learner (2012) buttressed that students may develop employability skills through learning activities. The opportunity to engage in a range of learning activities both co and extra-curricular activities contribute to students employability, and this is greatly planned, organized and implemented by their subject lecturers and instructors. Employability is indeed enhanced when students actively engage on a range of learning activities (including personal development planning) and when the connection of these activities with employability is made clear to them (The Higher Education Academic, 2006). For instance, in Germany training involves dual systems whereby 80% of instruction is done in industries and 20% of instruction in schools so as to equip learners with relevant employability skills (Anindo, et al., 2016). Thus, Anindo, et al citing UNDP (2010) posit that training is largely employer driven and emphasis is on action-oriented, practice-oriented and application-oriented modes of teaching and learning.

Employability skills transverse all disciplines and can be promoted in all fields of specialization. In Technology Education or TVET and other professionally-related fields, education providers, stakeholders, curriculum implementers and researchers alike and have sought to explore employability skills relevant to industrial work and employment (Martin et al., 2008; Toland, 2011; Anindo, et al., 2016). Extensive review of literature (Loughborough University, n.d., University of Leeds, n.d.,; University of Wales, 2012) revealed various strategies suggested to increase Technology Education and Engineering students employability skills include extensive hands-on experimental work, design and research projects, oral and written presentation and group works. Others include year-long industrial attachment, establishment of careers/employability centre and organizing career seminars, taste of industry visits and promotion of relevant extra-curricular activities. Problem-Based Learning (PBL) according to Martin et al., (2008) is related to employability skills development. They further asserted that PBL does offer more to students

than content knowledge through the development of critical reasoning, teamwork and problem-solving skills.

It should be noted that available literature had revealed a substantial studies on employability have been rooted or concentrated in higher education, few or none have really paid attention to B.(Technology) Education student-teachers who are expected to teach various employability skills in different field of human profession to the learners. The Technology Education student-teachers are found in both Industrial and Vocational programmes such as Automobile, Building, Metal work, Electricity/Electronic, Drafting, Educational Technology, Computer Science and Agricultural Education. According to Imaginative Mind (2013) despite teachers and students effort over recent years, a shocking 17% of teenagers are leaving schools functionally illiterate and are unable to cope with the challenges of everyday life. It is in this regard that Dixon (20130) cautioned that institutions of learning may be failing in their manifest roles and responsibilities of teaching life and work-related skills and leaving youths (majority graduates) unemployed or stagnated in careers.

Indeed, employability skills are even more needful in developing countries like Nigeria, where students' drop-out rate is high, unemployment/underemployment is averagely high and the prospect of furthering education is very slim due to some factors. It is against this gap and rational that this study investigated 10 employable skills among B.(Technology) Education student teachers and the learning opportunities students get to develop such employability skills. The research also sought to ascertain TVET lecturers' sense of efficacy in teaching these skills to their students.

### **Research Questions**

The following research questions guided and directed the study.

1. What is the B. (Technology) Education student-teachers self-perceived employability skills competency level?
2. How are the B.(Technology) Education student-teachers self-perceived employability skills competency ranked?
3. What opportunities are available for B. (Technology) Education student-teachers self-perceived employability skills development?
5. What are the B. (Technology) Education lecturer's senses of efficacy in promoting students employability skills?

## **METHODOLOGY**

### **Research Design:**

This research utilized descriptive survey design. Survey research designs are procedures in quantitative research in which investigators administer a survey, i.e. questionnaire, to a sample or to the entire population of people to describe the attitudes, opinions, behaviors or characteristics of the population (Creswell, 2012). Fraenkel and Wallen (2009) also described that in a survey study, information is collected from a group of people in order to describe some aspects of characteristics (such as abilities, opinions, attitudes, beliefs, and/or knowledge) of the population of which that groups is. Denga and Ali (1998) citing Best (1986) viewed descriptive survey design as concerned with conditions on relationship that exist, practices that prevails, belief of view or attitudes held, processes that are going on, effect that are being felt or trends that are developing.

### **Population and Sample of the study:**

The target population for this study is all B. (Technology) Education student-teachers in the Department of Education (Technical), Kaduna Polytechnic, Kaduna. The programme is affiliated with Federal University of Technology, Minna, Niger State. However the accessible population is the final year B. (Technology) student-teachers. These categories of students were used because they were about completing their programme of study and soon enter the labor market. A sample size of 150 participants was selected using stratified random sampling technique, based on Industrial and Vocational programmes as strata. After administration of the tool, 104 copies of the questionnaire were retrieved. While 29 TVET lecturers were simple random sampled among those teaching the students. The justification of sample size was based on Krejice and Morgan (1970) Table for determining sample size from a given population which helps to ascertain its adequacy (Kpolovie, 2011). Application of Taro Yamani's formula as postulated in Baridam (2001) and Isangedighi , Joshua, Asim and Ekuri (2004) equally confirmed the adequacy of the sample size for this research.

### **Research Instrument:**

The researchers adopted/adapted a developed structured questionnaire, used in a similar research as instrument for data collection (Orji, 2013). The questionnaire comprised of four sections. Section A elicited demographic data



of the respondents such as programmes, gender, age, etc. Section B is titled: Student-Teachers Employability Skills Questionnaire (STESQ). This scale gathered data on student-teachers assessment of their employability skills perceived competency. It is composed of 32-item structured on five-point rating format ranging from “Excellent” (4) to “Not at all” (0). The items were classified to measure 10 skills categories that includes Communication, problem-solving, team work, planning and organizing, creativity/innovation, working with others, independent study, numeracy skills, ICT skills, self-management skills and time management

Sections C and D are meant for the lecturers teaching at the B.(Technology) programmes. Employability Opportunity Questionnaire (EOQ) is a 23-item scale structured on five-point response option ranging from “Very Much” (4) to “None” (0). The respondents (lecturers) were requested to indicate how much exposures student-teachers get on the 23 employability skills development activities during their teaching-learning processes. Similarly, the Employability Efficacy Questionnaire (EEQ) is a 12-item scale with five-point ordered response options varying from “Very Much”(4) to “Nothing” (0). The scale was designed to obtain from B.(Technology) lecturers sense of efficacy,- implying, their self-perceived competency in developing employability skills in their education student-teachers.

#### **Validation of the Instrument:**

The instruments were content and construct validated by two experts in Educational Measurement and Evaluation and one expert in the field of Entrepreneurship Education They were expected to validate the instrument in terms of relevance to the research construct, unambiguity of each statement, clarity of language and adequacy of the items. The validators, after examining the instrument made some corrections which were effected in the final draft of the instrument.

#### **Reliability the Instrument:**

The developer of the scale reported reliabilities of the instruments determined using test-retest method after a span of four weeks interval .For the EOQ and EEQ, r-values of .70 and .77 were respectively computed, while STESQ produced an r-value of .65. For the current study, the three scales produced an

internal consistency reliabilities of .930, .880 and .925 respectively computed through the famous Cronbach alpha method. Based on the results computed, it could be seen that each scale result is above the recommended threshold cut-off-point of .70 by scholars (Gliem, & Gliem, 2003, Fields, 2006).

**Procedures for data Collection:**

The student participants were informed properly about the study and its importance. The research tool was administered to the respondents during normal lecture periods by the lead researcher who happens to be course lecturer in the department. For the lecturers, they were personally met at their various offices. Participation was voluntary after the participants were informed on how to respond to the questionnaire items by reading the instruction properly. This is with a view to ensure valid and reliable data collection. Completing the scale take between 10-15 minutes. This indeed ensured high return rate.

**Methods of data Analysis:**

The data gathered were properly coded and identified. Before embarking on the statistical analyses all variables were properly cleaned and examined for errors to enhance accuracy of data entry, missing values and ensure no violation of statistical assumptions (normality, linearity, etc). The responses were analyzed using descriptive statistics of mean, standard deviation while the null hypothesis was tested using inferential statistics of one-sample t-test. The analysis was facilitated with the help of computer software named IBM SPSS version 23.

**Results Presentation**

*Research Question One: What is the B. (Technology) Education student-teachers self-perceived employability skills competency level?*

**Table 1: Frequency, mean and Standard deviation of responses by B.(Tech) students to items on ES**

<i>Skill Items</i>	<i>Not at all (0)</i>	<i>Very Little(1)</i>	<i>Somewhat (2)</i>	<i>Very Well(3)</i>	<i>Excellently (4)</i>	<i>Mean</i>	<i>S.D</i>	<i>Assessment</i>
<i>Item 1</i>	1	2	6	41	54	3.39	.769	Competent
<i>Item 2</i>	0	5	5	53	41	3.25	.760	Competent
<i>Item 3</i>	0	3	3	60	38	3.28	.660	Competent
<i>Item 4</i>	0	8	13	56	27	2.98	.836	Competent
<i>Item 5</i>	0	5	30	45	24	2.85	.833	Competent

Item 6	1	3	5	57	38	3.23	.753	Competent
Item 7	0	3	8	48	45	3.30	.736	Competent
Item 8	0	6	8	58	32	3.12	.780	Competent
Item 9	0	4	13	50	37	3.15	.785	Competent
Item 10	0	2	9	33	60	3.45	.736	Competent
Item 11	0	4	18	45	37	3.11	.823	Competent
Item 12	0	3	8	62	31	3.16	.684	Competent
Item 13	0	6	10	52	36	3.13	.813	Competent
Item 14	0	5	11	50	38	3.16	.802	Competent
Item 15	0	3	14	48	39	3.18	.773	Competent
Item 16	1	4	5	48	46	3.29	.809	Competent
Item 17	0	5	9	45	45	3.25	.810	Competent
Item 18	0	4	4	48	48	3.35	.734	Competent
Item 19	2	1	14	41	46	3.23	.862	Competent
Item 20	0	4	3	39	58	3.45	.736	Competent
Item 21	0	1	10	29	64	3.50	.711	Competent
Item 22	0	1	8	49	46	3.35	.665	Competent
Item 23	0	1	13	41	49	3.33	.730	Competent
Item 24	0	3	17	47	37	3.13	.789	Competent
Item 25	0	2	13	47	42	3.24	.744	Competent
Item 26	2	2	5	48	47	3.31	.813	Competent
Item 27	1	3	11	47	42	3.21	.821	Competent
Item 28	0	4	13	53	34	3.13	.772	Competent
Item 29	2	3	19	45	35	3.04	.902	Competent
Item 30	0	4	20	46	34	3.06	.822	Competent
Item 31	0	3	15	44	42	3.20	.793	Competent
Item 32	0	3	14	55	32	3.12	.741	Competent

\*Assessment level: Mean>2.0 (Competent), Mean <2.0 (Not competent)

**Table 2: Mean scores, S.D and overall mean responses to items on employability skills categories**

No	Employability skills Categories	Skill items	Mean	S.D	*C mean & SD
1	Communication	Item 1	3.39	.769	3.307(.736)
		Item 2	3.25	.760	
		Item 3	3.28	.660	
2	Problem-solving	Item 4	2.98	.836	3.02(.807)
		Item 5	2.85	.833	

		Item 6	3.23	.753	
3	<b>Team work</b>	Item 7	3.30	.736	<b>3.26(.777)</b>
		Item 8	3.12	.780	
		Item 9	3.15	.785	
		Item 10	3.45	.736	
		Item 17	3.25	.810	
		Item 18	3.35	.734	
		Item 19	3.23	.862	
4	<b>Planning &amp; Organizing</b>	Item 11	3.11	.823	<b>3.133(.773)</b>
		Item 12	3.16	.684	
		Item 13	3.13	.813	
5	<b>Creativity/Innovation</b>	Item 14	3.16	.802	<b>3.21(.793)</b>
		Item 15	3.18	.773	
		Item 16	3.29	.809	
6	<b>Independent study</b>	Item 20	3.45	.736	<b>3.483(.704)</b>
		Item 21	3.50	.711	
		Item 22	3.35	.665	
7	<b>Numeracy</b>	Item 23	3.33	.730	<b>3.23(.759)</b>
		Item 24	3.13	.789	
8	<b>ICT skills</b>	Item 25	3.24	.744	<b>3.25(.792)</b>
		Item 26	3.31	.813	
		Item 27	3.21	.821	
9	<b>Self management</b>	Item 28	3.13	.772	<b>3.09(.837)</b>
		Item 29	3.04	.902	
10	<b>Time management</b>	Item 30	3.06	.822	<b>3.127(.790)</b>
		Item 31	3.20	.793	
		Item 32	3.12	.741	

\*Cmean =mean for employability skill sub-categories

Empirical data contained in Table 1 shows simple distribution of statistics of B.(Tech) students responses to statements on their self-perceived employability skills levels. It could be seen that the mean scores of the students on responses on the whole 32 ES items are all above the cut-off point of 2.0. This implies that the students perceived themselves as competent in all the 32 ES of this research.

Item-by-item analysis reveals item No 21 had the highest mean of 3.50 while item No 5 had the lowest mean of 2.85.

Furthermore, Table 2 presents the mean scores and SD of responses whereby the 32 items were classified into 10 ES categories. It could be deduced that the combined/categories ES of Communication had mean of (M=3.307), problem-solving had (M=3.020), teamwork (M=3.260), planning and organizing (M=3.133), creativity/innovation (M=3.210), independent study (M=3.481), numeracy (M= 3.230), ICT skills (M=3.250), self-management (M=3.090), and time management (M=3.127). The employability skills category of independent study had the highest mean while problem-solving had the lowest mean. The finding reveals that the B.(Tech) students self-perceived themselves as competent in all the 10 ES categories. The grand mean score of all responses is (M= 3.216, SD=0.777). Thus the overall ES competency level is Very Well (3).

***Research Question Two: How are the B.(Technology) Education student-teachers self-perceived employability skills competency ranked?***

**Table 3: Ranking of B.(Techno) students Employability skills Competency**

<i>No</i>	<i>Employability Skills</i>	<i>Category Mean</i>	<i>Skills Ranking</i>
1	Independent study	3.481	1 <sup>st</sup>
2	Communication skills	3.307	2 <sup>nd</sup>
3	Team work skills	3.260	3 <sup>rd</sup>
4	ICT skills	3.250	4 <sup>th</sup>
5	Numeracy	3.230	5 <sup>th</sup>
6	Creativity/Innovation	3.210	6 <sup>th</sup>
7	Planning and organizing	3.133	7 <sup>th</sup>
8	Time management	3.127	8 <sup>th</sup>
9	Self management	3.090	9 <sup>th</sup>
10	Problem-solving	3.020	10 <sup>th</sup>
	<b>Grand Mean</b>	<b>3.211</b>	

Table 3 depicts the ranking of mean scores for the 10 categories of ES of B.(Tech) students. The analysis reveals that independent study skills (M=3.481) and Communication skills (M=3.307) were the best two highly ranked ES competencies as perceived by the students. Contrastingly, the least ranked competency skill by the student is Problem-solving (3.020) followed by Self-

management (M=3.090). In brief the analysis reveals that students perceived ES competence ranged from (M=3.020 to (M=3.481)

**Research Question 3: *What opportunities are available for B. (Technology) Education student-teachers self-perceived employability skills development?***

Table 4 presents the statistics for the TVET lecturers perceptions of how much of the 23 employability skills development activities and opportunities are offered the B. (Tech) students in Kaduna Polytechnic. The analysis reveals a range mean scores of 1.45(SD=1.02) to 2.76(SD=1.12). While the grand mean score (M=3.211). The study also reveals that the top five employability enhancing opportunities made available to the students a descending order include: students’ oral/written presentation (M=2.76), trade/entrepreneurship (2.62), industrial attachment or placement (2.59), team work/working with others (2.55), and Laboratory work (2.52). In addition, the five employability activities in which the students have the least exposure include: Excursions and field trips (1.72), Career seminars (1.59), accounting/business subjects (1.55), Lectures/seminars from scientists or industrialists (1.45) and Students talk-shows/debates (1.45) . Using the predetermined cut-off-point of 2, the study reveals that the students have little exposure on 13 (56.5%) out of 23 employability activities. The reaming 10 employability activities are not offered or made available to students to enhance their employability skills

**Table 4: Frequency, mean scores and standard deviation of responses to items on students Employability Skills development (N=29)**

<i>N</i>	<i>Employability skills activities</i>	<i>Non e (0)</i>	<i>Ver y littl e (1)</i>	<i>Littl e (2)</i>	<i>Muc h (3)</i>	<i>Very Muc h (4)</i>	<i>Mea n</i>	<i>S.D</i>
1	Student oral/written presentations	1	3	7	9	9	2.76	1.12
2	Trade/entrepreneurship	1	2	9	12	5	2.62	.979

3	Industrial attachment or placement	1	3	7	14	4	2.59	.98 3
4	Team work/working with other s	1	2	10	12	4	2.55	.94 8
5	Laboratory work	1	2	11	11	4	2.52	.94 9
6	Information Communication Technology (ICT)	1	5	8	14	1	2.31	.93 0
7	Writing laboratory reports	1	4	12	10	2	2.28	.92 2
8	Course on employability	3	3	11	8	4	2.24	1.1 5
9	Skill acquisition program/course	4	3	9	9	4	2.21	1.2 3
10	Extra-curricular activities (school teams, sports)	3	7	6	9	4	2.14	1.2 5
11	Hands on experiential work	2	4	12	10	1	2.14	.95 3
12	Part-time work experience	3	4	11	8	3	2.14	1.1 3
13	Independent research project	3	6	9	9	2	2.03	1.1 2
14	Interaction with job/work placement agencies	3	5	13	7	1	1.93	.99 8
15	Visit to industries	5	6	8	7	3	1.90	1.2 6
16	Participation in ENATUS	5	4	12	6	2	1.86	1.1 6

17	Creating students skills portfolios (self report)	5	6	6	12	0	1.86	1.16
18	Internet Research/Information retrieval course	3	9	10	5	2	1.79	1.08
19	Excursions and field trips	3	9	11	5	1	1.72	.996
20	Careers seminars	3	12	8	6	0	1.59	.946
21	Accounting/business subjects (e.g. as electives)	5	9	9	6	0	1.55	1.02
22	Lectures/seminars from scientists or industrialists	5	12	6	6	0	1.45	1.02
23	Students talk-shows/debates	6	11	6	5	1	1.45	1.12

**Research Question 4: What are the B. (Technology) Education lecturer's senses of efficacy in promoting students employability skills?**

**Table 5: Frequency, mean scores and SD of responses to items on Lecturer4s sense of efficacy in promoting B.(T) students employability skills**

No	Employability skills categories	Nothing (0)	Very little (1)	Little (2)	Much (3)	Very Much (4)	Mean	S.D
1	Team work/working with others	0	2	7	15	5	2.79	.819
2	Communication skills	1	1	8	13	6	2.76	.951
3	Creativity/innovation	1	1	8	13	6	2.76	.951
4	Problem-solving ability	1	2	5	17	4	2.72	.922
5	Time management/prioritizing	0	3	6	17	3	2.69	.806
6	Independent study skills	1	2	5	19	2	2.66	.857
7	Self-management	0	1	10	17	1	2.62	.622
8	ICT skills	2	0	10	13	4	2.59	.983



9	Planning and organizing skills	1	3	7	15	3	2.56	.948
/0	Scientific/practical skills	1	1	11	14	2	2.52	.829
//	Numeracy skills	1	3	9	14	2	2.45	.910
/2	Information retrieval skills	2	2	11	11	3	2.38	1.01
<b>Grand Mean</b>							<b>2.62</b>	

Table 5 provides the statistics for the TVET lecturers sense of efficacy in promoting the B. (Tech) students employability skills. It reveals a high sense of efficacy in fostering student's employability skills. The mean scores of responses ranged from 2.79 to 2.28. The highest sense of efficacy among the lecturers scores are observed in team work/working with others (2.79), followed by creativity/innovation (2.76 ) while the least efficacy scores are observed for information retrieval skills (2.38), and numeracy skills (2.45).

## Discussion

The first finding of this study indicated that an overall B.(Tech) education students self perceived competency in employability skills. Considering the fact that these group of graduates are entering the world of work, the findings are interesting in that they are not in line with the finding of Parker (2011) and Dixon (2013) who held the view that Colleges and Universities failed to prepare graduates to compete for jobs by not teaching students basic skills that lead to critical thinking.

It is equally interesting to note that the students' competency differed across the various sub- categories of employability skills in a descending order thus: independent study > communication skills > team work skills> ICT skills>Numeracy>Creativity/Innovation>planning and organizing>Time management> self-management>problem -solving. Indeed the students showed competency in all skills (Mea scores >3.00) is Very Well.

Another finding of this study is that the TVET lecturers and the training institution offered the students different developmental opportunities and activities in varying forms that helps to promote employability skills. The analysis reveals that 13 (56%) out of 23 activities are provided by the students. Top on the list of such activities are providing for students oral/written

presentation, trade/entrepreneurship, industrial attachment/placement, team work/working with others, laboratory work, ICT., Writing laboratory reports. This finding is in agreement with those activities listed by Loughborough University (n.d.), University of Leed (n.d.), University of Wales (2012), as employability skills developing opportunities for the science and engineering students. In addition, the finding of this research is in line with the opinion held by McGrath (n.d.) who asserts that students employability skills will improve by maintain a working relationship/interaction between schools and employers, understanding of industrial realities, work placement for staff and students, ws well as adapting new approach to teaching and learning that highlights core skills and attitudes, job seeking skills and a repackaged set of technical and occupational skills.

The TVET lecturers are really keen in training their students on employability skills. This sense of efficacy is reflected in the overall mean score of 2.62 for the 12 skills.. Very importantly, the lecturers efficacy mean scores is above the 2.0 cut-off point, for 10 skills computed obtained 2.50. Top most are team work/working with other to scientific/practical skills. The only two least skills are numeracy skills and information retrieval skills. These two skills have implication for research purposes.

## **Conclusion**

The issue of student's employability skills has increasingly attracted the attention of stakeholders in education and employers of labour. This study was centered on B. (Tech) Education students employability skills self perceived assessment as well as their TVET lecturers sense of efficacy on helping them acquire the skills. It was ascertained empirically that the students possessed very good competencies in the 10 skills measured, while the lecturers provided leading opportunities / activities that will enhance the skills among the students with exception of numeracy skills and information retrieval skills.

## **Recommendations**

Based on the research findings, the following recommendations were put forward:

1. Management of tertiary institutions should continue to provide conducive environment that will enhance acquisition and development of employability skills by the students.
2. TVET lecturers, instructors and technologists should equally provide enriching activities and tasks, challenging enough to develop student's competency in numeracy and information retrieval skills.
3. Curriculum implementers should provide opportunities for students to participate more in least ranked activities such as Interaction with job/work placement agencies, visit to industries, participation in ENATUS, creating students skills portfolios, Internet research, excursions and field trips, career seminars, accounting/ business subjects etc.
4. TVET lecturer should be sponsored to attend conferences, workshops and seminars whereby hands-on Employability Skills development new strategies are learned to enhance their sense of efficacy. This in turn will be reflected on student's practices, thus enhancing item Employability Skills.

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