

Entrepreneurial Skills in Woodwork Technology Possessed by Graduating Students for Employability in South East, Nigeria

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Abstract

Possession of adequate employability skills by graduates of university has been on the decrease as majority of the graduates are seen without jobs. This topic, Entrepreneurship in woodwork technology possessed by building/woodwork technology education graduating students of universities tends to determine those skills in woodwork that will help in enhancing graduate employability, especially in woodwork area. Two research questions and one hypothesis were developed for the study and survey research design was adopted. The population of the study was 64 graduating students of Building/Woodwork Technology Education Departments from the universities within the South East Nigeria. A 31-item structured questionnaire was developed by the researcher. The instrument was presented to three validates who are experts in Vocational and Technical Education. Kendall (W) Concordance of Coefficient was used to determine the reliability of the instrument with an index value of 0.76 consequently adjudged as high enough for the study. Data was analyzed using mean and standard deviation. The t-test statistic was used to test the only null hypothesis at 0.05 level of significance. The study determine the practical and personal entrepreneurship skills possessed in woodwork technology by building/woodwork technology graduating students in universities for enhancing graduate employability. It was discovered that the extent of practical and personal skills possessed by the graduates are low. It was recommended among others that among which are that governments should organize capacity building workshops and seminars for teachers. The teachers must endeavor to make themselves available for the training.

Keywords: *Entrepreneurial, skill, technology, woodwork, building, sustainable, Practical, Personal*

Introduction

The impact of Globalization on the education system has overwhelmingly affected the entire system through the changes on the curriculum. This impact led to the introduction of entrepreneurship education determined to help improve reduction in the rate of unemployment among youths especially graduates. Gimba, Adams and Gimbe (2020), stated that it is generally believed that the high rate of unemployment among graduates was due to lack of necessary skills and competencies needed by employers. For adequate functionality of the employees in the work place, graduates are required to have requisite skills, capacities, and knowledge necessary for employment in any given job. The lack of these requisite skills,

capacities and knowledge among most Nigerian graduates definitely affects employability rate and increase poverty rate.

United Nations mobilized efforts in 2015 to adopt the sustainable development Goal to battle some global phenomenon like poverty, inequality and climate change (Iduseri, Abbas, and Izunobi, 2022). These phenomena no doubt is in one way or the other related to lack of employable skills among the youths in Nigeria. The preparedness of Nigeria as a nation to achieve the sustainable development goals and improve on employment rate was high according to policies laid down but for provisions of infrastructures and personnel training in the local areas to pilot the programme (Abdullahi, 2020). To this effect, change of education system became imperative and introduction of entrepreneurial education very

necessary. Magaji (2019) state that, Nigeria government introduction of entrepreneurship education in tertiary institutions was aimed at equipping students with entrepreneurial skills, attitudes and competencies in order to become self-employed, job providers (employers of labour) and not just job seekers after graduation. This development would in no small extent help reduce poverty and unemployment.

Poverty eradication has been a top priority of many developing countries where extreme poverty is obvious as it has even become pandemic and one of the major factors to be tackled to enhance employability. Leal Filho, Lovren, Will, Salvia, and Frankenberger, (2021) has it that ending poverty in all forms and everywhere is the first Sustainable Development Goal (SDG) and much can be discussed about its impact on several other sustainability elements.

Employability is built upon the knowledge, capabilities and skills strengthened and developed through basic education. The technical skills otherwise known in the strength of this work as practical skills are needed for sound graduate employability. These technical skills are needed for specific occupations, performing specific tasks or duties like woodwork, bricklaying, and electric wiring and so on. The professional/personal attributes such as having creative skills, high communication knowledge, honesty, reliability, punctuality and loyalty (International Labour Office ILO, 2013) are all required to enhance graduate employability. These are the basic entrepreneurial skills that may be grouped into practical and personal skills required to be possessed for real employability to be effective.

Entrepreneurial skills are required to successfully run a business or add value to the business (Shaibu and Nwaezue, 2024). This skill is considered a crucial dynamic force to development (Kari and Jarkko, 2008) and therefore is a key driver of any economy and remains the gateway to enhancing employability in any society. The OECD and the European Commission, for instance, have developed and

supported several programs aimed at fostering students' entrepreneurial intentions and student entrepreneurship (Sansone, Ghezzi, Landoni, and Rangone, 2024). This is because they understand the importance of this form of education in today's society where graduates are expected to create jobs.

FGN (2014) stated that Technical Vocational Education (TVE) graduates are expected to establish and own businesses after school. Building/Woodwork Technology Education (BWTE) students are part of TVE students who are expected to be self reliant after graduation. The rising rate of restiveness and criminality occasioned by the spate of unemployment among technical education graduates in Nigeria calls for concern (Olojuolawe, and Adeoluwa, 2022) therefore skills acquired by BWTE graduates need to be examined. In the strength of this study therefore, there is need to determine the level of practical and personal skill possessed by BWTE graduates in Woodwork Technology Education (WTE) area. The very reason for the introduction of entrepreneurial education in tertiary institutions is to assist to produce TVE entrepreneurs who will use the acquired skills to establish businesses on their own.

Meanwhile, entrepreneurship education is an educational process with the aim of preparing entrepreneurial skills and attitudes in individuals with efforts to develop superior personal qualities (Sinaga, Ilham, Alamsyah, Nasrudin, Ananda, and Samsidar, 2024) and BWTE students are no exemptions. Furthermore, FGN (2014) has it that one of the objectives of tertiary technology institutions is to give training that impart the necessary skills for the production of technicians, technologists and other skilled personnel who shall be enterprising and self-reliant. Meaning that, graduates of technology institutions are expected to be entrepreneurs through trainings received in schools. Consequently, the need to assess and determine the entrepreneurial skills of the students before graduation and discover the

students' level of employability preparedness after-school condition arises.

Acquisition of entrepreneurial skills in schools is relevant to students for the development of proper knowledge mindset and becoming employable and relevant as such Bacanak (2013) maintained that entrepreneurial skills could be developed through training. There are different types of skills which include but not limited to basic skills, generic skills, cognitive skills, manipulative skills, practical skills and technical skills (Ibidapo, 2024). On the other hand, entrepreneurial skills can be categorized into three groups. These groups are personal skills, interpersonal skills and process skills. In the strength of this research, practical and personal skills will be looked into.

According to (Ibidapo, 2024), practical skills are usually obtained through experimenting, designing, constructing, testing, carrying out repairs and performing general workshop/laboratory tasks. It is obvious that having practical skills means being able to use what you have learnt in the classroom in real life situations and in the world of works. Practical skills are those skills that require creative reformulation and are drawn upon tacit knowledge that may be largely domain specific. This is acquired through experience, usually carried out without thinking about it having problem assuming the individual is asked to put it in words, Sternberg and Grigorenko (2000) said that it is more of cognitive activities. Practical skills are important for jobs related to technology and fields of sciences; it is also noticeable that graduates with practical skills are in high demand and as such make WTE students employable after school. As they are prepared to effectively interact with machines and tools, there is need also to train them in acquiring skills to enable them interact with people around them, and so they need personal skills.

Personal Skill in entrepreneurship is such skill where the entrepreneur has the abilities to be innovative, initiate actions, take risks, deal with the unknown with ease, accept challenges, take responsibility, and seek opportunities in a changed

situation. It may be referred to as soft skills. According to Kraja, Bejleri, and Saraçi, (2024), soft skills are personal characteristics, qualities, and habits that enable a person to engage effectively with others and navigate social situations. Personal skills are shown in the behaviours and attitudes in people at their work places. Listed as personal skills which may be transferable are the ability to analyze complex issues, identify the core of the problems, and means of solving it, synthesis and interpret desperate elements, clarify values, make effective use of numerical values and other information, work cooperatively and constructively with others and communicate very effectively both orally and in writing.

Statement of the problem

Most Nigeria graduates are found to perform poorly after they get employed in firms due to lack of knowledge of effective work environment management or lack of certain needed skills. The incidence of poor performance increased unemployment in the society. It has been observed that there is massive unemployment in Nigeria, because the youths, seems to lack the entrepreneurial skills to become self-reliant. Lack of entrepreneurial skills may be credited to the curriculum which does not place much emphasis on practical and personal skills. Technical education is expected to equip students with relevant skills that will enable them to be self-reliant and to be gainfully employed in the industries on graduation from school. Unfortunately, most of the graduates fail to acquire relevant practical and personal skills that will enable them to become entrepreneurs, create wealth, and to be employed in relevant industries. Despite the fact that there are entrepreneurial skills implicit in the building/woodwork technology education, it would seem that the students are not sufficiently exposed to the requisite entrepreneurial skills that would enable them to become employable as well as employment creators. The question then is: what levels of entrepreneurial skills are implicit in the building woodwork technology curriculum which

students acquired at the point of graduation? The researcher envisaged that to enhance the employability quality of BWTE graduates from tertiary institutions, it is necessary to assess the entrepreneurial skills possessed by BWTE graduating students for enhancing employability in South East, Nigeria.

Research questions

1. What are the practical skills in woodwork technology possessed by Building/Woodwork Technology Education (BWTE) graduating students for enhancing graduate employability in South East Nigeria?
2. What are the personal skills in woodwork technology possessed by Building/Woodwork Technology Education (BWTE) graduating students for enhancing graduate employability in South East Nigeria?

Hypothesis

1. No significant difference exists between the mean scores of male and female graduating students on the extent of entrepreneurship skills in woodwork technology possessed by Building/Woodwork Technology Education (BWTE) graduating students for enhancing graduate employability in South East Nigeria.

Methodology

The design adopted for the study was the descriptive research survey design. The population of the study was 64 graduating students of Building/Woodwork Technology Education Departments in Tertiary institutions in South East Nigeria. No sampling was done as the entire population was used for the study. The instrument used for data collection for the study was a 31-item structured questionnaire known as Extent of Entrepreneurship Skills Possessed Questionnaire (EESPQ) developed by the researcher.

The instrument was presented in three sections, A, B, and C sections. Section A contains items designed to obtain demographic information of the respondents such as gender for testing the

hypothesis. Sections B, and C contain a total of thirty-one items with 13, and 18 items respectively containing response options of Very Highly Possessed (VHP), Highly Possessed (HE), Lowly Possessed Extent (LP) and Very Lowly Possessed (VLP) weighted 4, 3, 2 and 1 respectively. Validity was established by the judgment of three experts in Vocational Education. The reliability of this instrument was established using Kendall (W) Concordance of Coefficient and an index value of 0.76 was established and consequently adjudged as high enough. 56 copies of the questionnaire distributed was accurately completed and returned showing 87.5 percent and therefore qualified for data analysis.

Data collection was done by the researcher with the help of five research assistants. Each assistant was assigned a state for distribution and retrieval of copies of the questionnaire while the researcher took care of one state. Data were analyzed using mean and standard deviation. Limit of real numbers was used to determine the level of extent of possession. For the items, mean scores of 3.50 – 4.00 were regarded as Very Highly Possessed; 2.50 – 3.49 as High Possessed; 1.50 – 2.49, as Low Possessed and 1.00 – 1.49 as Very Lowly Possessed. The t-test statistic was employed to test the only null hypothesis at 0.05 level of significance. The hypothesis was tested by comparing the mean ratings of entrepreneurial skills possessed based on gender. The hypothesis will be rejected if t-calculated value is equal or greater than t-table value ($t\text{-cal} \geq t\text{-tab}$) or was not rejected where t-calculated value is less than t-table value ($t\text{-cal} < t\text{-tab}$).

Results

Research Question 1

What are the practical skills in woodwork technology possessed by Building/Woodwork Technology Education (BWTE) graduating students for enhancing graduate employability in South East Nigeria?

Table 1**Practical skills in woodwork technology possessed by Woodwork Technology Education (WTE) graduating students for enhancing employability**

S/N	Items	X	SD	Decision
1	Students are able to identify material for practical.	2.53	0.4352	HP
2	Students develop isometric drawings for a simple project work.	2.08	0.4536	LP
3	Identification of different types of wood is difficult.	2.39	0.2652	LP
4	Students find it problematic to identify the physical properties of hard wood.	1.87	0.5636	LP
5	Measuring of items are easy tasks to the students.	2.45	0.7633	LP
6	Students transfer measurement from drawing to materials.	2.03	0.6724	LP
7	Student have drafting skills	1.62	0.7149	LP
8	Drawing with Scales are easy tasks	2.64	0.2375	HP
9	Students can Identify adequate woodwork tools	2.83	0.4731	HP
10	Cutting materials are not difficult	2.51	0.2312	HP
11	Assembling of worked materials are easy	1.98	0.1316	LP
12	Students are effective in application of finishers	1.64	1.4327	LP
Grand mean		2.21	0.5311	LP

Key: *VHP* =Very Highly Possessed; *HP* =Highly Possessed; *LP* =Lowly Possessed; *VLP*=Very Lowly Possessed

The result in Table 1 indicates that the extent of practical skills in woodwork technology possessed by BWTE graduating students of tertiary institutions is low. However, it is indicative in the Table that identification of materials for practice (2.53), preparation of drawing with scale (2.64), identification of woodwork tools (2.83) and cutting materials

(2.51) exist to a high extent among the graduating students.

Research Question 2: What are the personal skills in woodwork technology possessed by Building/Woodwork Technology Education (BWTE) graduating students for enhancing graduate employability in South East Nigeria?

Table 2**Personal skill in woodwork technology possessed by BWTE graduating students for enhancing employability**

S/N	Items	X	SD	Decision
13	Students are self motivated to learn	2.76	0.8673	HP
14	Ability to use information for practical is highly informed	2.13	0.9823	LP
15	Communication ability and skill are commendable	2.87	0.2942	HP
16	Students' initiating ideas for practical work is credible.	2.13	0.3198	LP
17	Students' creative skill for new product is high.	1.76	0.2436	LP
18	The leadership ability of students is recommended	2.77	0.2341	HP
19	Students have innovative mindset	1.32	0.2376	LP
20	Students accept challenges during practical.	2.98	0.2674	HP
21	Students take responsibilities in practical work.	2.03	0.6238	LP
22	Students Seek opportunities to practice.	2.85	0.7412	HP
23	Risk taking ability of the students is high.	2.03	0.4327	LP
24	Students can management the time awarded for the practical.	1.32	1.3265	LP
25	Students have Supervisory ability	2.54	0.8342	HP
26	Being honest in workshop activities	2.51	0.9834	HP
27	being reliable to the use of machines and equipment in workshops	1.45	0.4763	LP
28	The students are always punctual during workshop practice.	2.36	0.6745	LP
29	The students are always loyal to obeying rules and regulations in the workshop.	2.48	0.8324	LP
Grand Mean		2.25	0.6100	LP

Key: *VHP* =Very Highly Possessed; *HP* =Highly Possessed; *LP* =Lowly Possessed; *VLP*=Very Lowly Possessed

Table 2

Personal skill in woodwork technology possessed by BWTE graduating students

Table 2 shows that the extent of personal skill possessed by Building/woodwork technology education graduates is low. This is evidence in the grand mean rating of 2.26 shown on the table. Meanwhile, there is high extent of possessing in items 14, 15, 18, 20, 22, 25 and 27 with mean

scores of 2.76, 2.87, 2.77, 2.98, 2.85, 2.54, and 2.51 respectively.

Hypothesis testing

No significant difference exists between the mean scores of male and female graduating students on the extent of entrepreneurship skills in woodwork technology possessed by BWTE graduating students for enhancing graduate employability in South East Nigeria.

Table 3

Significant difference between the mean scores of male and female graduating students on the extent of entrepreneurship skills in woodwork technology

Respondents	\bar{x}	SD	N	Df	P-value	t-value	Decision
Male	2.32	0.2672	44	54	2.4539	1.676	Reject
Female	2.20	0.7534	12				

From Table 3 the null hypothesis was rejected because the calculated value is greater than the critical table value ($P\text{-value} > t\text{-value}$).

Discussion of findings

The result of the findings shows the practical skills in woodwork technology possessed by BWTE graduating students of tertiary institutions is in low extent. This agree with Olorunshelu (2011) in Dangana (2023) who maintained that there is inadequate mastery of practical skills among Technical College graduates and Okwori, Adamu and Odo (2013) whose studies revealed that most graduates of lack the ability to use some woodworking machines. This simply means that the extent of the practical skill they possess is low. It is clear that if the graduates were practicing with the machines there is no gainsaying that they will have high extent of possession of skills. Dangana (2023) found out that the use of practical guide in teaching students will improve their practical ability on graduation. If the goals of the Educational Policy are to be met, woodwork graduates must be in a vintage position to fill in the gap of changing the aged woodworkers in the society. This condition was elated to Ibidapo's (2024) assertion inability to master the practical skills after graduation may be related to the challenges in equipping workshops for teaching technical skills and as such make

learning unsustainable. Okori (2001) in Okwori, Adamu and Odo (2013) show that graduates are supposed to be equipped with knowledge, attitudes and skills that will help them enter the world of work. This is not in consonance with the result in Table 2 which shows that the extent of personal skill possessed by Woodwork technology education graduates is low. If the extent is low, it all indicates that the graduates will lack the ability to face the world of work and enhancing employability needs much to be desired. They will lack the managerial abilities and other related abilities of their persons.

Implication of the study

Implication emerged from the result of the study as shown above indicates that Teachers should endeavour to increase their practical skills teachings. When the BWTE graduates improve in their practical and personal skills, enhancing graduate employability will be an obvious fact. This will in turn increase the employability level of the youths and develop the nation's economy, technology and on the other hand reduce social vices. When BWTE graduates possess high extent of practical skills and personal skills and get employed after graduation, they become self reliant, contribute to the up keep of their individual families as well to the development of

the economy and in turn help to sustain the development.

Recommendations and Conclusion

Building/woodwork technology education graduates are required to be functional citizens. If this is a reality, there is therefore need to improve on the skills possessed for proper placement in the world of work. This study revealed that the graduating students have low extent of practical and personal skills possession. This indicates that enhancing the graduates' employability will be low, this in no doubt affects production and their contributive ability to the society. It is therefore recommended that:

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