Journal of Emerging Trends in Educational Research and Policy Studies (JETERAPS) 10(6): 395-398

jeteraps.scholarlinkresearch.com

Skills Required for Woodwork Technology Capacity Building as Perceived by Technical Educators in Nigeria South-West Colleges of Education

Adeagbo Ibukun Francis
Department of Technical Education,
School of Secondary Education (Vocational and Technical Programmes)
Emmanuel Alayande College of Education

Abstract
The teacher holds the key to nation building; this is because the aspiration of any nation to transform into a great economy can only be possible if there are competent and dedicated lecturers to impart the appropriate knowledge. This, prompts the researchers to examines kills required for woodwork technology capacity building as perceived by technical educators in Nigeria South-West Colleges of Education. Two research questions guided the study. The study employed descriptive survey research design. The population for this study consisted of 91 woodwork technology educators in South-West Colleges of Education and University. Census study was adopted because of the population is small and manageable. The instrument used for data collection was 20 items structured questionnaire which was designed on a modified 4-point Likert scale titled: 'Required Woodwork Technology Skills for Capacity Building Questionnaire (RWTSCBQ). The instrument was validated by three research experts from Department of Technical Education, Emmanuel Alayande College of Education, Oyo. Reliability co-efficient (r) value of 0.89 was obtained through Cronbach alpha method. 91 copies of the questionnaire were retrieved by the researchers with the help of two research assistants and analysed using weighted mean and Improvement Need Index. It was found out that woodwork lecturers in the university perceived that trade skills in woodwork technology are required for proper capacity building in woodwork technology. However, it was recommended that college management should ensure that lecturers are expose to the right saleable skills needed in the woodwork industries to enable them swim with the tide.

Keywords: Woodwork Technology, Skills, Capacity Building and Technical Educators

INTRODUCTION

The importance of equipping Nigerians with saleable and profitable skills such as woodwork skills made the Nigeria Government to emphasize the implementation of technology in her education system. Federal Republic of Nigeria (FRN, 2013) in her national policy on education outlined that technology education as that form of training that leads to the acquisition of practical and applied skills as well as basic scientific knowledge that will enable its recipient to be self-dependent and self-reliant making them an assets to themselves and the society in which they cohabitates. In other to achieve this, it is imperative to checkmate the pedagogical process and provide a functional curriculum that will equipped the recipients to be self-dependent.

Woodwork technology should be made more functional and practically oriented. This corroborates the assertion of Esu (2010) who noted that functional curriculum is designed to teach students skills which will allow them to function as competent and an expert. These skills should emphasize independence, vocational, living and social skills for survival. This implies that, functional skills are those core elements of subjects that provide individuals with skills and abilities they need to operate confidently and effectively in individual life, their society and work. Also, Adeagbo (2017) posited that woodwork technology provides students at higher educational institutions and specialised secondary educational institutions with the technical knowledge and skills required for the study and use of machine equipment and automatic control devices used in various areas of science and technology to include woodwork technology.

Woodwork technology like other areas of technology education deals with the act, art or trade of working with wood (Omeje, 2013). Woodwork technology is a practical skill oriented pragramme design to impacts into its recipients the rudiments and professionalism of working with wood, using the basic hand tools and machines for carrying out the required process in other to make wood projects or articles such as table, chairs and cabinets to mention few. This calls for effective teacher training in these specialist areas to impart same knowledge to the learners. The teacher holds the key to nation building; this is because the aspiration of any nation to transform into a great economy can only be possible if there are competent and dedicated teachers to

impart the appropriate knowledge, skills and attitudes which is the essence of capacity building.

Capacity building according to Stavrons (1998) is the process of developing competencies and capabilities in individuals, groups, organization sectors or countries which leads to sustainable and self-generating performance and improvement. The Canadian International Development Agency (CIDA, 2013) also described capacity building as the activities, approaches, strategies, and methodologies which help organizations, groups and individuals to improve their performance, generate development benefits and achieve their objectives. Therefore capacity building refers to the set of activities directed towards improving competencies and capacities of woodwork technology lecturers towards the required trade skills. In order to improve the capacity of the woodwork technology lecturers, the trade skills they posses must be identified through assessment.

With reference to this study, assessment is the process of evaluating lecturers of woodwork technology in tertiary institutions through collection of data from them to determine the level of competencies they possess in machine/woodworking, workshop management, rehabilitation of woodwork items and upholstery The level of competencies they posses in the aforementioned woodwork process can be identified through need gap. Need gap, as explained by Chuta (1992) is what one requires in order to meet at a target standard. Roselt and Sheldon (2001) explained need gap as the difference between the perceived need and actual need. A need gap as stated by Gall, Gall and Borg (2007) is a discrepancy between an existing set of conditions and a desired set of conditions. In this study, the difference between the perceived level of competencies possessed by lecturers and what they required to meet standard of acceptable performance constitute the need gap which is meant be to filled.

Statement of the Problem

Woodwork technology is geared towards producing an individual who can be self-reliant and self-dependent upon graduation. It is also worthy to note that the dynamic world requires dynamic and functional curriculum to empower its recipients with trade-based skills for self-dependent and reliant. However, it's not clear whether this program has been achieving its goals as its impact its doubt to be felt in the society. This therefore makes it imperative to develop competencies and capabilities of the technical educators which can leads to sustainable and self-generating improvement. This implies that for lecturers of woodwork technology to be able to perform effectively, they need capacity building. It is therefore pertinent to examine the skills required for woodwork technology capacity building as perceived by technical educators in Nigeria South-West Colleges of Education.

Purpose of the Study

The main purpose of this study was to examine the skills required for woodwork technology capacity building as perceived by technical educators in Nigeria South-West Colleges of Education. Specifically, the study sought to:

1. Identify the required trade skills towards capacity building in woodwork technology.
2. Determine the available procedures towards capacity building in woodwork technology.

Research Questions

The following research questions guided the study.

1. What are the required trade skills towards capacity building in woodwork technology?
2. What are the available procedures towards capacity building in woodwork technology?

METHODOLOGY

The descriptive survey design was adopted for the study. The population for the study was 102 woodwork technology lecturers made up of 53 lecturers of woodwork technology in South-West Colleges of Education and 38 woodwork lecturers in South-West Universities. Census research was adopted to select all the 91 woodwork technology lecturers as study sample because the number is small and manageable. The instrument for data collection was 20 items structured questionnaire titled; Required Woodwork Technology Skills for Capacity Building Questionnaire (RWTSCBQ) developed by the researcher. It has two parts A and B. Part A sought the demographic data of the respondents. While part B was further divided into two sections which contained items based on research questions developed to guide the study with two components of needed and performance. It was based on modified 4-point rating scale of Highly Needed (HN), Average Needed (AN), Slightly Needed (SN) and Not Needed (NN) Also, Highly Performance (HP), Average Performance (AP), Low Performance (LP) and No Performance (NP) with corresponding value of 4, 3, 2 and 1 for both needed and performance components respectively. The questionnaire was face and content validated by three (3) experts from Department of Technical Education, Emmanuel Alayande College of Education, Oyo, Oyo State and pilot tested on 10 woodwork technology lecturers of University of Benin, Benin City, Edo State using Cronbach alpha method of reliability. The internal consistency of the questionnaire was established to be 0.89. The questionnaire was administered to the respondents by the researchers with the aid of two research assistants who were briefed on the questionnaire before administration and all the 91 copies of the questionnaire administered to the respondents were retrieved given a return rate of 100%.Weighted Mean

and Improvement Need Index (INI) was used to answer the research questions. The formula used for weight mean was:

$$\frac{N1 + N2 + N3 + N4 + \ldots}{\text{No of Needs}} = \text{Weighted mean for Xn}$$

$$\frac{P1 + P2 + P3 + P4 + \ldots..}{\text{No of Performance}} = \text{Weighted mean for Xp}$$

Key: where N stand for needed component grade while P stand for performance component grade.

To determine the performance gap of the lecturers of woodwork technology South-West Colleges of Education and Universities the following steps were taken:

1. The weighted mean of each item under the need component which is Xn was calculated
2. The weighted mean of each item under the performance component which is Xp was calculated
3. The difference between the two weighted mean for each item (Xn-Xp = NG) was determined.
   i. Where the difference (NG) was zero (0) for each item, there was no need for capacity building because the level at which the competency item was needed was equal to the level at which the lecturers could perform the competency.
   ii. Where the difference (NG) was negative (-) for each item, there was no need for capacity building because the level at which the competency item was needed was lower than the level at which the lecturers could perform the competency.
   iii. Where the difference (NG) was positive (+) for each item the lecturers needed capacity building because the level at which the competency item was needed was higher than the level at which the lecturers could perform the competency.

RESULTS AND DISCUSSION

Research Question 1

What are the required trade skills towards capacity building in woodwork technology?

Table 1: Performance gap of mean rating of the respondents on the required trade skills towards capacity building in woodwork technology

S/N	Item Statements	Xn	Xp	Xn-Xp (PG)	Remark
1	Upholstery	3.00	2.78	0.22	CBN
2	Furniture making	3.76	2.87	0.88	CBN
3	Carpentry	2.98	2.87	0.10	CBN
4	Machine/woodworking	3.12	3.22	0.10	CBNN
5	Store keeping	2.87	2.93	0.06	CBNN
6	Marketing	2.82	2.55	0.27	CBN
7	Salesmanship	3.00	2.48	0.52	CBN
8	Workshop management	2.96	2.50	0.45	CBN
9	Rehabilitation of woodwork items and upholstery	3.45	3.11	0.34	CBN
10	Repair of woodwork equipment and items	3.46	3.35	0.10	CBN

Source: Fieldwork, 2019; Keys: Xn = Mean Needed; Xp = Mean Performance; CBN = Capacity Building Needed; CBNN = Capacity Building Not Needed.

Data presented in Table 1 reveals that the performance gap values of 8 out 10 items ranged from 0.10 to 0.88 and were positive. This shows that technical educators needed capacity building in the 8 competency items in required trade skills towards capacity building in woodwork technology. Two out of the 10 items had a performance gap value of -0.10 and -0.60, indicating that technical educators do not need capacity building on the item because the level at which the item is needed was lower than the level at which technical educators could perform the item for required trade skills towards capacity building in woodwork technology.

Research Question 2

Determine the available procedures towards capacity building in woodwork technology?

Table 1: Performance gap of mean rating of the respondents on the available procedures towards capacity building in woodwork technology

S/N	Item Statements	Xn	Xp	Xn-Xp (PG)	Remark
1	Ability to select the face side and plane it perfectly	3.64	3.23	0.41	CBN
2	Ability to plane stock face edge for squareness	3.45	3.10	0.35	CBN
3	Ability to gauge stock to the required width	3.32	3.28	0.04	CBN
4	Ability to gauge stock to the required thickness	3.73	3.54	0.18	CBN
5	Ability to plane stock to the required length	3.71	3.69	0.02	CBN
6	Ability to use woodwork hand tools	3.20	2.76	0.44	CBN
7	Ability to use woodwork machines	3.43	2.88	0.55	CBN
8	Ability to cut out various parts and members	2.98	2.69	0.29	CBN
9	Ability to assemble the parts to make an article	3.00	2.67	0.33	CBN
10	Ability to apply finishing coat on an article	3.64	3.52	0.12	CBN

Source: Fieldwork, 2019; Keys: Xn = Mean Needed; Xp = Mean Performance; CBN = Capacity Building Needed; CBNN = Capacity Building Not Needed.

The data in Table 2 reveals that the performance gap values for all the 10 items ranged from 0.04 to 0.55 and were positive. This indicates that the lecturers of woodwork lecturers need capacity building in the entire competency items on the available procedures towards capacity building in woodwork technology.

DISCUSSION

Data presented in Table 1 reveals that woodwork technology lecturers showed an interest in receiving training on the required trade skills towards capacity building in woodwork technology. Result also shows that most of the woodwork lecturers in the university perceived that trade skills in woodwork technology are required for proper capacity building in woodwork technology. It is also found that if these skills are impacted into learners it will definitely makes them fitted in the world of work and relevant. This findings is inline with the work of Esu (2010) and Omeje (2013).

The result of this study also shows that woodwork technology lecturers in the colleges and university needed the appropriate procedures towards capacity building in woodwork technology. It therefore means that woodwork technology lecturers are not adequately trained on the method to be employed in imparting the right saleable skills into learners. This result is inline with the findings of Gall and Borg (2007) and Esu (2010).

CONCLUSION

Woodwork technology is an organised learning activity design to facilitate the acquisition of practical and applied skills which contributes to the successful economic growth. The inability of the programme to meet the needed requirements in the world of work has been blamed on the deficient of woodwork lecturers to meet up with trend of innovation in the world. It can also be said that woodwork lecturers are ready to receive the appropriate procedures in acquiring trade skills towards building their capacity in woodwork technology.

RECOMMENDATIONS

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

i. The college management should ensure that teachers are expose to the right saleable skills needed in the woodwork industries to enable them swim with the tide.
ii. The identified training procedures towards capacity building in woodwork technology should be package by the College into training and retraining programmes to enhance capacity building in woodwork technology.

ACKNOWLEDGEMENTS

The researcher is grateful to the College Management of Emmanuel Alayande College of Education, Oyo for releasing the TETFund intervention money to carry out this study work. Appreciations also goes to all the respondents for giving this work urgent attention it deserve.

REFERENCES

Adeagbo, I. F. (2017). Vocational and technical education: Application to the management of wood work technology. In K. O. Bolarinwa, A. S. Akinbani, G. O. Akanbi, & L. E. Ekpeyong (Eds.), *Vocational and technical education development and practice in Nigeria* (pp. 65-77). Ibadan: Glory-Land Publishers.

Canadian International Development Agency (2013).*Capacity building.* Retrieved from https://en.wikipedia.org/wiki/Capacity_building

Chuta, C.Z. (1992). Comparative Assessment of the Training Needs of Senior Agricultural Extension. *Unpublished B.Sc Thesis,* Department of Agricultural Extension, University of Nigeria, Nsukka.

Esu, A.E.O. (2010).*Functionality of curriculum in Nigeria*. WCCI Seminar series No. 5 held at the University of Nigeria Nsukka.

Federal Republic of Nigeria (FRN, 2013).*National policy on education.*6th Edition. Lagos: Nigerian Educational Research and Development Council (NERDC).

Gall, M. D., Gall, J. P. & Borg, W. R. (2007). *Educational Research: An Introduction.* Boston,New

Rosett, A & Sheldon, K. (2001).Analysis. The study we do in order to figure out what to do. San Francis Co Need Analysis.Htm.

Starvrons, J.M. (1998). Capacity Building: An Appreciative Approach. *Unpublished Ph.D Thesis, Case Western Reserve University Cleveland, Ohio. Retrieved from http://www.uniclevohio.org*