DEVELOPMENT OF ENTREPRENEURIAL SKILLS TRAINING MODULES FOR CAPACITY BUILDING OF CARPENTRY AND JOINERY CRAFTSMEN IN OGUN STATE, NIGERIA

[1]Oyewusi Titus Olusegun and [2]Ogunmilade Johnson Olusesan

[1]Department of Technical Education, Tai Solarin University of Education Ijebu Ode
G-mail: Oyetiseg@gmail.com (08053034228)

[2]Department of Vocational and Technical Education, Faculty of Education, Ekiti State University, Ado-Ekiti.
Ogunmiladeolusesan123@gmail.com (08060153506)

Abstract

This study was conducted to develop entrepreneurial skills training modules for capacity building of carpentry and joinery craftsmen in Ogun State. Five research questions were answered while five null hypotheses formulated were tested at 0.05 level of significance. The study adopted research and development design and was conducted in Ogun State. The population for the study consisted of 30 teachers of carpentry and joinery in 8 technical colleges, 40 lecturers of business education from colleges of education and 50 craftsmen in carpentry and joinery industries. All from Ogun State. There was no sampling technique due to manageable size of the population. Internal consistency of entrepreneurial skills training modules questionnaire was determined using Cronbach Alpha reliability method and the overall reliability coefficient of 0.75 was obtained. Means and standard deviation was used to answer research questions while analysis of variance was employed for testing five null hypotheses at 0.05 level of significance. The result of hypotheses tested revealed that there was no significant difference in the mean responses of teachers of carpentry and joinery, lecturers of business education and craftsmen in registered carpentry and joinery industries. The success of any educational programme depends on the level of availability of resources provided for the programme.

Introduction

Acquisition of entrepreneurial skills is one of the solutions to unemployment in Nigeria. Entrepreneurial skills according toSteinholf & Burgress (2016)are special characteristics and skills one must possess in order to succeed as an entrepreneur. Acquisition of entrepreneurial skills plus other resources in different occupations and trades such as automobile, electrical installation and maintenance work, upholstery and furniture making, woodwork and carpentry and joinery enables one to setup small and medium scale enterprise to become self-reliant. Enterprises sequel to carpentry joinery, carpentry is a skilled worker who makes finishes and repairs wooden objects and structures as stated in free dictionary. Also Grader described carpenter as a person who serves as a professional copyist. Conversely, Webster says Joiner is the one that joins and whose occupation is to construct articles by joining pieces of wood through application of skills.

Skill is explained by Osinem and Nwoji (2005) as the ability to perform an activity expertly. They further added that skill is a well established habit of doing things and involves the acquisition of performance capability through repetitive performance of an operation. Okorie (2000) defined skill as a well established habit of doing something and involves the acquisition of performance capability. Skill in the context of this study involves elements or activities that make up an enterprise. A British Wikipedia says skill is the ability to communicate effectively with people in a friendly way, especially in business. For somebody to be skilled in an enterprise he must be trained.

Training is the impartation of skills, knowledge and attitudes to somebody by experts. The experts could be teachers, trainers and instructors. Okorji (2001) said that training may be in form of short term courses, attendance of seminars, workshops, conference and further educational programmes. Mc Namara,(2010) explained training as involving an expert working with learners by using module to transfer certain areas of skills to enable them improve in their current job.

A module according to Olaitan(2003) is a unit of curriculum based on the development of entry level competencies of students. Java script states that module is a small units of independent reusable code. They are the foundation of many java script design pattern and are critically necessary when building any non-trivial. Olaitan stated that in a modular design, the students and their occupational goals form the basis for programme planning. With the modular approach, the total curriculum of a particular field is divided into units referred to as modules. The modules are of equal length that will take approximately the same hours of instructional time to achieve by the average

group of students. Dumbiri (2011) stated that a module is made up of objectives, contents, instructional strategies, learning experiences, facilities and evaluation techniques that are useful in entrpreneurship.

Entrepreneurship refers to a particular mode of existene in labour market such being involved in the process of creating and managing one's own business. Entrepreneurship in the view of Igbo (2001) is the ability to recognize a business opportunity, mobilize the resources and exploit that opportunity in order to be self employed. Igbo clarified further that entrepreneurship involves risking materials, human and financial resources in creating a new business. Oko (2011) stated that entrepreneurship involves the ability to set up a business enterprise as different from being employed.

Entrepreneurial skill training module therefore is a unit of instruction that contains relevant objectives, entrepreneurial skills as its contents, instructional methods, facilities and evaluation techniques for assessing the carpentry and joinery craftsmen. Entrepreneurial skill training module can be used to build the capacity of carpentry and joinery craftsmen.

Objectives are those skills, insights, understandings and appreciations which the learners will develop after passing through the programme. It is a clear statements that describe the desired learning outcomes of instruction; that is, the specific skills, values, and attitudes students should exhibit that reflect the broader goals(Wilburn, 2010). The objectives of any module can only be achieved through the selection of the appropriate content elements.

Content according to Kapoma and Namusokwe (2011) is a list of subjects, topics, themes, concepts or works to be covered. Contents are the cognitive materials such as facts, concepts, skills and generalizations that make up the body of information which the learners are to learn. Entrepreneurial skill training contents are technical, financial, marketing, management and communication skills. Abinu (2012) described technical skills as the knowledge and skills specific to a particular occupation or group of occupations. Technical skills in carpentry and joinery are taught by technical teachers. Carpentry and joinery teachers are individuals professionally trained in teacher training institutions in order to impart necessary skills, knowledge and attitudes in carpentry and joinery to learners. Financial skill involves the knowledge and technicalities required for creating wealth on a sustainable basis. However, marketing skills are the skills which an individual acquires and which enables him keep a job. Management skills refers to a set of activities designed to direct affairs of the establishment, control affairs of the establishment and above all, set realistic business goals. Communication skill is the technique required to transfer information from one person to another in such a way that their thoughts are completely understood. Both financial, marketing, management and communication skills are always taught by business education lecturers. Business education lecturers are trained teachers who possess teaching qualifications and capable of imparting business skills to students. These contents demand effective capacity building for proper implementation.

Capacity building is described by Harriton (1991)) as the updating of the initial or originally acquired knowledge and skills to enable an individual perform better than he used to be. Abdulahi (2001) described capacity building as a concept that is concerned with creating or enhancing the ability of someone to perform specific tasks up to standard or expectation. Furthermore capacity building is the process of developing and strengthening the skills, instructions, abilities, processes and resources that organization and communities need to survive, adapt and thrive in the fast changing world. Capacity building therefore is the upgrading of the abilities of the craftsmen with entrepreneurial skill training modules in carpentry and joinery, to enable them acquire entrepreneurial skills required for establishing enterprises. By the virtue of training, carpentry and joinery craftsmen are expected to create jobs for themselves and employ others.

Statement of the Problem

Carpentry and joinery is one of the trades in the programmes of technical colleges in Nigeria. It was incorporated into the programme of technical colleges to equip individuals with skills, knowledge and attitudes required in workplace and to set up carpentry and joinery small and medium scale enterprises. Moreover, the present modules of carpentry and joinery craftsmen to achieve this laudable purpose hardly spell out entrepreneurial skills. Lack of ESTM to train individuals gives rise to various forms of management problems. Modules recently prepared by National Board for Technical Education (NBTE) for technical colleges in Nigeria are not valid and were not empirically carried out. This therefore necessitated the study to empirically develop entrepreneurial skills training modules that could be used to retrain carpentry and joinery craftsmen in order to establish carpentry and joinery business and employ others.

Purpose of the Study

The main purpose of this study was to develop entrepreneurial skills training modules for capacity building of carpentry and joinery craftsmen in ogun state.

Research Questions

The following research questions guided the study:

1. What are the objectives of entrepreneurial skills training modules for capacity

building of carpentry and joinery craftsmen?
2. What are the contents of entrepreneurial skills training modules for capacity building of carpentry and joinery craftsmen?
3. What are the instructional methods for implementing entrepreneurial skills training modules?
4. What are the facilities required for entrepreneurial skills training modules for capacity building of carpentry and joinery craftsmen?
5. What are the evaluation techniques for assessing carpentry and joinery craftsmen?

Methodology

Research Design
Research and Development design (R and D) was used for the study. Ama (2006) described research and development (R&D) as a design which involves the preparation of new educational materials, the introduction and use of procedures or programmes, and systematic try out, in which feedback is gathered and they can lead to a perceptible improvement in the education of students.

Population for the Study
The population for this study consist of 120 respondents. Teachers of carpentry and joinery and lecturers of business education were selected for the study to respond to the questionnaire in order to determine and confirm objectives, content (skills), instructional methods, and evaluation techniques for developing entrepreneurial skill training modules for craftsmen. Craftsmen in the industries were primarily selected to confirm facilities for implementing entrepreneurial skill training module.

Sample and Sampling Techniques There was no sampling because of manageable sizes of the respondents considered for the study.

Research Instrument
Two instruments were used for data collection. These include the Needs Assessment Questionnaire (NAQ) and structured questionnaire titled Entrepreneurial Skill Training Module Questionnaire (ESTMQ).

Data Collection
One hundred and Twenty (120) copies of the questionnaire were administered to the respondents at their various locations through five research assistants (RAs).

Method of Data Analysis
Data for answering research questions were analyzed using Mean and standard deviation while Analysis of Variance was used to test the null hypotheses at 0.05 level of significance. Statistical Package for Social science (SPSS) 16 versions was used to ensure accuracy.

Result

Research question 1:
What are the objectives of entrepreneurial skills training modules for capacity building of carpentry and joinery craftsmen?
The data for answering research question 1 are presented in Table 1

Table 1: Mean Responses of the Respondents on the Objectives of Entrepreneurial Skills Training Modules for Capacity Building of Carpentry and Joinery Craftsmen

S/N	Objectives of the module	X	S.D	Remarks
1	Understand general knowledge of carpentry and journey	3.42	0.79	Required
2	Understand general knowledge of entrepreneurship	3.23	0.93	Required
3	Know principles of entrepreneurship	2.99	0.96	Required
4	Apply entrepreneurial guidelines for setting out carpentry and joinery business	3.18	0.90	Required
5	Acquire relevant technical skill in carpentry and joinery	3.18	0.86	Required
6	Develop financial skills required to set up setup carpentry and joinery small and medium scale enterprise	3.09	0.93	Required

N = 296

The data presented in Table 1 revealed that all the objectives formulated for entrepreneurial skill training modules have their mean values ranged from 2.88 to 3.42. This showed that the mean value of each objective was above the cut-off point of 2.50, indicating that all the 12 objectives are suitable for the entrepreneurial skill training modules for capacity building of carpentry and joinery craftsmen.

The table also showed that the standard deviations (SD) of the items are within the range of 0.79 to 0.96, this indicated that the mean values of the

respondents were not far from one another in their responses.

Research Question 2
What are the contents of entrepreneurial skills training modules for capacity building of carpentry and joinery craftsmen?
The data for answering research question 2 are presented in Table 2 and 3

Table 2: Mean Responses of the Respondents on the Contents of Entrepreneurial skills Training Modules for Capacity Building of Carpentry and Joinery Craftsmen

S/N	Objectives of the module	X	S.D	Remarks
A	**Technical Skills**			
1	Observe necessary safety precautions when carrying out operations	3.09	0.87	Required
2	Select appropriate poles and planks for scaffolding	3.08	0.92	Required
3	Make benefiting scaffolding	3.00	0.89	Required
4	Adopt correct principles of scaffolding	2.91	0.87	Required
5	Position the scaffold inside posts against the walls	2.95	0.93	Required
6	Connect inside and outside posts while attaching the 2-by-4 boards to posts side.	3.02	0.99	Required

Table 3: Mean Responses of the Respondents on the Contents of Entrepreneurial skills Training Modules for Capacity Building of Carpentry and Joinery Craftsmen

S/N	Objectives of the module	X	S.D	Remarks
D	**Management Skills**			
1	Plan and organize effective meeting of employees	2.51	0.83	Required
2	Competency in time management	3.08	0.92	Required
3	Make use short and long plans	3.20	0.89	Required
4	Lead others subordinates well	3.21	0.93	Required
5	Control the affairs of the establishment	3.12	0.91	Required
6	Maintain business policies in the establishment	3.25	0.90	Required

The data presented in Table 2 and 3 show 80 contents for the development of entrepreneurial skill training modules. The Means for the parts ranged from 2.51 to 3.48. Each Mean is above the cutoff of 2.50. This shows that all the contents were required for the development of entrepreneurial skill training modules for carpentry and joinery craftsmen. The table also showed that the standard deviations (SD) of the items are within the range of 0.72 to 0.99; this indicated that the mean values of the respondents were not far from one another in their responses.

Research Question 3
What are the instructional methods for implementing entrepreneurial skills training modules?
The data for answering research question 3 are presented in Table 4

Table 4: Mean Responses of the Respondents on the Instructional Methods for implementing Entrepreneurial Skills Training Modules

S/N	Objectives of the module	X	S.D	Remarks
1	Employ demonstration method	3.04	1.03	Required
2	Use discussion method	3.12	0.92	Required
3	Explanatory method of teaching	3.24	0.96	Required
4	Adopt group discussion for teaching	3.19	0.91	Required
5	Apply learning by doing approach	3.12	0.85	Required
6	Use practical method for learners	3.33	0.84	Required

The data presented in Table 4 revealed that all the instructional methods have their mean values ranged from 3.04 to 3.45. This showed that the mean value of each instructional method was above the cut-off point of 2.50, indicating that all the 20 instructional methods are required for implementing the entrepreneurial skill training modules developed for capacity building of carpentry and joinery craftsmen.

The table also showed that the standard deviations (SD) of the items are within the range of 0.74 to 1.03, this indicated that the mean values of the respondents were not far from one another in their responses.

Research Question 4
What are the facilities required for entrepreneurial skills training modules for capacity building of carpentry and joinery craftsmen?

The data for answering research question 4 are presented in Table 5

The data presented in Table 5 revealed that all the 40 facilities have their mean values ranged from 2.55 to 3.42. This showed that the mean value of each facility was above the cut-off point of 2.50, indicating that all the 40 facilities were required for the development of entrepreneurial skills training modules for capacity building of carpentry and joinery craftsmen.

Table 5: Mean Responses of the Respondents on the Facilities required for Entrepreneurial Skills Training Modules for Capacity building of Carpentry and Joinery Craftsmen

S/N	Objectives of the module	X	S.D	Remarks
1	Claw hammer for hitting and removing nails from the wood	3.28	0.93	Required
2	Layout squares for making a square line on an end cut	3.27	0.79	Required
3	Retractable tape measure for taking all kinds of measurement	3.34	0.89	Required
4	Utility knife with a locking mechanism for scribing a man	3.41	0.71	Required
5	Finely sharpened chisel for cleaning out waste from joints and mortises	3.46	0.89	Required
6	Level to verify if a piece of stock is perfectly horizontal	3.01	0.81	Required

The table also showed that the standard deviations (SD) of the items are within the range of 0.71 to 1.01, this indicated that the mean values of the respondents were not far from one another in their responses.

Research Question 5
What are the evaluation techniques for assessing carpentry and joinery craftsmen?
The data for answering research question 6 are presented in Table 6

Table 6: Mean Responses of the Respondents on the Evaluation Techniques for Assessing Carpentry and Joinery Craftsmen.

S/N	Objectives of the module	X	S.D	Remarks
1	Achievement test to measure learners knowledge and understanding	3.32	0.86	Required
2	Gives test that are related to what the trainees have learned from the modules	3.35	0.84	Required
3	Employ essay test at the end of the training	3.19	0.85	Required
4	Evaluate trainees' effective performance	3.32	0.97	Required
5	Assess trainees' psychomotor performance using rating scale	3.16	0.93	Required
6	Evaluate trainees students using performance test	3.17	0.97	Required

The data presented in Table 6 revealed that all the 18 evaluation techniques have their mean value ranged from 2.53 to 3.35. This showed that the mean value of each item was above the cut-off point of 2.50, indicating that all the evaluation techniques were required for assessing carpentry and joinery craftsmen. The table also showed that the standard deviations (SD) of the items are within the range of 0.79 to 0.97, this indicated that the mean values of the respondents were not far from one another in their responses.

Testing of Hypotheses
Hypothesis one
There is no significant difference in the mean responses of carpentry and joinery teachers, craftsmen and business education lecturers on the objectives of entrepreneurial skills training modules for capacity building of carpentry and joinery craftsmen.

Table 7: Analysis of Variance (ANOVA) of the Mean Responses of tutor, lecturer and craftsmen on the Objectives of Entrepreneurial Skills Training Modules for Capacity Building of Carpentry and Joinery Craftsmen

Source of Variance	Sum of Squares	DF	Mean Square	F-Cal	F-Tab	P-Value	Level of Sig.	Remarks
Between Groups	1.6915	2	0.846	1.0395	3.00	0.453	0.05	N S
Within Groups	233.984	293	0.7986					
Total	235.676	295						

The Analysis of Variance (ANOVA) in Table 7 showed that P-value of 0.453 is greater than 0.05 level of significance. This indicated that, there was no significant difference between the mean responses of carpentry and joinery teachers, craftsmen and business education lecturers on the objectives of entrepreneurial skills training modules for capacity building of carpentry and joinery craftsmen. Therefore, the null hypothesis of no significant difference in the mean responses of respondents on the objectives of entrepreneurial skills training modules for capacity building of carpentry and joinery craftsmen was accepted

Discussion

The findings of this study revealed that all the twelve objectives are suitable for development of entrepreneurial skill training modules for capacity building of carpentry and joinery craftsmen. The objectives include plan for a business in carpentry and joinery, understand general knowledge of entrepreneurship, know principles of entrepreneurship, apply entrepreneurial guidelines for setting out carpentry and joinery business, acquire relevant technical skill in carpentry and joinery, develop financial skills required to set up carpentry and joinery small and medium scale enterprise, purchase materials for setting up a business in carpentry and joinery, use marketing skills to market products of the establishment, acquire technical skill in carpentry and joinery, communicate effectively to customers about the products, keep proper account of buying and selling of goods and service and manage both human and materials resources for maximum production.

Conclusion

Module is a unit of curriculum based on the development of entry level competences of students made up of objectives, contents, instructional strategies, learning experiences, facilities and evaluation techniques found very useful in technical colleges to equip individual with skills, knowledge, and necessary saleable skills needed for employment, however the present module to achieve this laudable purpose lack entrepreneur skills. It was in this direction that this study was carried out to develop and validate entrepreneurial skills training modules for carpentry and joinery craftsmen in order to equip them with skills, knowledge and attitudes required in workplace and to set up carpentry and joinery small and medium scale enterprises.

Recommendations

Based on the findings of this study, the following recommendations were made:

1. Developed entrepreneurial skill training modules should be used to organize workshop/seminar in form of capacity building for carpentry and joinery craftsmen.
2. All the facilities required for effective implementation of the modules should be provided by government or relevant bodies.
3. The trainers should be fully utilized the facilities, instructional methods and evaluation techniques during training.
4. The contents of the entrepreneurial skill training modules should be integrated to carpentry and joinery programme of technical colleges.
5. Teachers of carpentry and joinery in technical colleges should be retrained for
6. Effective implementation of carpentry and joinery.

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