
REVIEWING PRE-SERVICE TEACHERS' TRAINING CURRICULUM TO EQUIP TRAINEES WITH ENTREPRENEURIAL SKILLS

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ABSTRACT

This study focused on reviewing pre-service teachers' training curriculum to equip trainees with entrepreneurial skills. Survey research design was adopted for the study. The population of the study comprised 178 student in 400 level at Akwa Ibom State University science education teacher trainees (2021/2022 academic session). 144 science education teacher trainees were used as sample for the study. Teacher Trainees' Entrepreneurial Skill Acquisition Questionnaire ($\alpha=0.83$) was used to collect data. Two research questions and two hypotheses guided the study. The data collected were analyzed using mean score and independent t-test. The results showed that Akwa Ibom State University pre-service science education teachers do not acquire entrepreneurial skills for global competitiveness; pre-service science education teachers never visited entrepreneurial skill centres/professionals for skill acquisition. The result further revealed that there was significant difference between male and female science education teacher trainees' acquisition of entrepreneurial skills ($t=2.156$; $df=142$; $P<.05$) and there was no significant difference in how often Akwa Ibom State University male and female science education teacher trainees visit entrepreneurial skill centres/professionals for skill acquisition ($t=1.176$; $df=142$; $P>.05$). The study recommends among others, that entrepreneurial based curriculum at all levels of education should be introduced and necessary materials for the implementation, as a matter of urgency should be adequately supplied.

Keywords: Entrepreneurial skills, entrepreneurship education, pre-service teachers, trainee teachers

INTRODUCTION

Children are naturally endowed with different levels of ability (Babayemi & Akinsola, 2014). The essence of education is to develop these abilities and enable each child to live independently and contributes to the development of the society in which they live. In order to do this, the child should be exposed to learning experiences that equips them to become a functional member of his immediate society. However, western education brought by the missionary presented a curriculum that encouraged memorisation of facts and information among others.

The advent of Christian missionaries marked the beginning of curriculum development in Nigeria. The Christian missionaries who arrived in 1842 set up missionary schools where Nigerians were taught the

4R (Arithmetic, reading, religion and writing). Despite being foreigners, Christian missionaries were influential. They solely regulated the Nigerian school curriculum from 1842 to 1882.

The Christian missionaries maintained sole ownership and management of Nigerian schools after establishing them. They also laid down the teaching methods, the objective and the curricula to be adopted by the schools primarily, the teaching method focused on how the subject in the missionary curriculum was taught. Looking critically at the content of this curriculum, one will observe that the curriculum does not reflect acquisition of skills but reflects virtual information that students can learn through rote learning.

Present realities call for a review of the curriculum being implemented in Nigerias' educational system. Learners would have to acquire a set of skills and adopt certain characteristics in order to become successful in the 21st century society that emphasize creativity and innovations. Creativity is as important in education as literacy and should be treated with the same status (Robinson, 2013).

Today, creativity and innovation are critical skills for students to possess (Babayemi & Kareem, 2019). Not only are these capacities fundamental drivers in the global workforce, they are also rapidly becoming key requirements for personal and professional success (Amran et al., 2019). The essence of this research is to see the need for university graduates to acquire specific skills (entrepreneurial skills) that will qualify them for the competitive global market.

According to Inibehe and Effiwatt (2015), Nigeria is facing economic problems which have resulted to high rate of unemployment, poverty and hunger. The unemployment predicament has increased awareness among Nigerian youths of the need for self-employment that lead to self-reliance through skill acquisition. The more pressing need and concern for the youth especially fresh university graduates is how to be empowered and trained to have a smooth take off as young entrepreneurs.

Entrepreneurship is defined in terms of specific function performed by entrepreneurs or activities generally associated with entrepreneurs, such as building a business entity (Atakpa, 2011). Akpan and Udoudo (2015) observed that entrepreneurial skills are widely acknowledged as a potent means for fast-tracking citizen's capacities for self-reliance, economic growth and national development. Olugboye (2017) represent entrepreneurial skills acquisition as not just about acquiring skills but acquiring knowledge and driving towards enterprise in skills that enhance personal livelihood through enduring business start-ups, enhancing employment opportunities and promoting economic development and growth.

One of the most crippling challenges in Nigeria and other third world countries is high level of youth unemployment as a result of lack of relevant practical and entrepreneurial skills (Undiyaundeye & Otu, 2015). Unemployment describe a situation where able and suitably qualified candidates could not secure jobs; as well as an economic indicator that describes the proportion of a population who have the skill, knowledge and competence; are able and willing to work at the going wage and job conditions; but are unable to find a job (Ateke et al., 2014). It is common knowledge that about 80% of graduates of most Nigerian universities find it hard to get employment every year due to curricula that emphasize training for white collar jobs.

Nigerian environment is endowed with abundant natural resources and favourable climatic conditions. It is worrisome that despite these abundant resources, Nigeria like other developing countries is faced with the challenge of youth and graduate unemployment, high level of poverty, insurgency, conflict and diseases, insecurity, over dependency on foreign goods, low economic growth and development, lack of capacity and required skills to move the economy forward (Undiyaundeye & Otu, 2015).

Unemployment has become a major problem facing youths and graduates; causing frustration, depression, dejection and dependency. It has become a national embarrassment and has questioned the rational for obtaining certificates? Why do children go to school? Does they go to school to acquire only certificate or acquire important skills other than literacy, help them in future (Babayemi & Olagunju, 2015).

Anyone who has acquired specific skills stands a better chance to be more useful to themselves and society. During the early year of Western education in Nigeria, the main aim of the missionary education was to ensure that new Christian converts acquire the basic skills of reading and writing for evangelical work. In the 21st century, a lot of things have changed in the world; the school system also needs to change especially the training curriculum (Udo & Babayemi, 2019). Kobi (2021) emphasized skill acquisition as one of the important pillars that help individuals actualize their dreams.

However, the curriculum of training teachers seems not produce desired result in terms of skills acquisition. University graduates are commonly issued certificate based on series of examinations they are exposed to, leading to the award of grades. The certificate awarded only presents the picture of graduate's cognitive ability. However, the global market demands graduates that are skilful and are able to produce results in the world of work. Previous studies show that most Nigerian graduates lack requisite skills to qualify them to compete with their counterparts in the global market. Therefore, this study focused on reviewing pre-service teachers' training curriculum to equip trainees with entrepreneurial skills.

The study posed the following research questions:

- 1) Do Akwa Ibom State University pre-service science education teachers acquire entrepreneurial skills for global competitiveness?
- 2) How often do Akwa Ibom State University pre-service science education teachers visit entrepreneurial skill centres/professionals for skill acquisition?

The following hypotheses were formulated and tested at .05 level of significance.

Ho₁: There is no significant difference between male and female pre-service science education teachers' acquisition of entrepreneurial skills for global competitiveness.

Ho₂: There is no significant difference in how often Akwa Ibom State University male and female pre-service science education teachers visit entrepreneurial skill centres/professionals for skill acquisition.

METHODOLOGY

The study adopted a survey research design. The Population of the study comprised one hundred and seventy eight (178) 400 level science education teacher trainees (2020/2021 academic session). 400 level science education teacher trainees was purposively selected based on the good number of years spent for their training hoping that they should have acquired some basic skills.

Teacher Trainees' Entrepreneurial Skill Acquisition Questionnaire (TTESAQ) was developed to collect data. TTESAQ has 34 items in 3 sections. Section A focused on personal data of the respondents. Section B dealt with skills and section C dealt with visit to entrepreneurial skill centres/professionals. TTESAQ was designed to assess respondents' level of acquisition of skills. The items were placed on a three-point scale and assigned: Very True of Me=3, True of Me = 2 and Not True of Me = 1. Section C: Always = 3, Occasionally = 2 and never = 1.

The initial draft of TTESAQ had 52 items, and was given to two lecturers in the Department of Science Education, Faculty of Education, Akwa Ibom State University. This was done to ascertain the face and content validity of the instrument. Items that survived scrutiny (34 items for TTESAQ) were used to produce the final copy of the instrument. TTESAQ was trial-tested on 30 science education teacher trainees from a university that was not part of the study but from the same State. The data collected were analysed using Cronbach's Alpha which yielded a reliability index of 0.83.

The researchers, before Faculty course lecture commenced, visited the teacher trainees of five programmes in the Department of Science Education, Faculty of Education in Akwa Ibom State University. The instrument was administered by providing a copy of the instrument to each of the science education teacher trainees. Data collected were analysed using mean score, standard deviation and independent t-test. Mean and standard deviation were used to answer the research questions and independent t-tests was used to test the hypotheses at 0.05 level of competence.

RESULTS

Table 1: Mean and standard deviation of science education teacher trainees' acquisition of entrepreneurial skills

S/N	Statements	Mean	Std.	Decision
1	I can produce paints	1.32	.524	Not True of Me
2	I can design and produce a simple mechanical motion system such as fan.	1.35	.571	Not True of Me
3	I am competent in dyeing and bleaching	1.30	.568	Not True of Me
4	I can produce simple household products from clay, ceramics and glass.	1.24	.532	Not True of Me
5	I can produce perfumes, body creams, shoe polish, air fresheners.	1.26	.542	Not True of Me
6	I am competent in clothing and textile making.	1.30	.556	Not True of Me
7	I can do catering craft practice.	1.29	.553	Not True of Me
8	I can make soap (liquid and solid) for use	1.22	.475	Not True of Me
9	I am competent in painting and decorating.	1.31	.583	Not True of Me
10	If I have access to baking materials like flour, I can produce various stuffs	1.28	.550	Not True of Me
11	I can successfully mold building blocks	1.22	.498	Not True of Me
12	I can make fruit juice	1.22	.525	Not True of Me
13	I can make beads	1.19	.477	Not True of Me
14	I can easily produce insecticides	1.27	.557	Not True of Me
15	I have difficulty in oil making	1.28	.508	Not True of Me
16	I can construct some measuring instruments and devices such as simple machines, calorimeter, thermometers, mirrors, stands, screen, optical boards, light box	1.22	.493	Not True of Me
17	I can produce battery cage, key, fixed resistors, meter bridge, Wheatstone bridge and others.	1.22	.438	Not True of Me
18	I can construct aquarium	1.24	.515	Not True of Me
19	I can construct models such as skeleton, eye, ear, nose, tongue, brain, digestive system, circulatory system, reptiles, wild animals.	1.20	.482	Not True of Me
20	I can construct simple microscope	1.28	.587	Not True of Me
21	I can construct some mathematical devices such as mathematical sets	1.31	.595	Not True of Me
22	I am proficient (competent) in operating anyone of fishery, piggery, and poultry among others.	1.26	.542	Not True of Me
	Weighted Mean = 1.26			

Table 1 showed that items 1-22 entrepreneurial skills' acquisitions were not true of science education teacher trainees. Table 1 further revealed a mean of 1.26 out of the maximum obtainable 4.00, which is less than the standard mean of 2.0. This implies that Akwa Ibom State University science education teacher trainees did not acquire entrepreneurial skills for global competitiveness.

Table 2: Mean and standard deviation of science education teacher trainees' frequency of visit to entrepreneurial skill centres/professionals for skill acquisition

S/N	Items	Mean	Std.	Decision
23	Plastic and rubber industries	1.38	.566	Never
24	Clay, ceramics and glass industries	1.26	.502	Never
25	Fine artists	1.33	.567	Never
26	Mechanical and electrical workshops	1.32	.550	Never
27	Fashion and designers	1.27	.518	Never
28	Pottery makers	1.16	.421	Never
29	Saw millers	1.22	.475	Never
30	Bakery	1.22	.490	Never
31	Block industries	1.27	.557	Never
32	Textile industries	1.28	.535	Never
33	Construction sites	1.33	.607	Never
34	Hair saloons	1.47	.699	Never

Weighted Mean = 1.29

In Table 2, science education teacher trainees' response to items 23-34 revealed that they never visited the following entrepreneurial skill acquisition centres/professionals for the purpose of skill acquisition: Plastic and rubber industries ($\bar{x} = 1.38$), Clay, ceramics and glass industries ($\bar{x} = 1.26$), Fine artists ($\bar{x} = 1.33$), Mechanical and electrical workshops ($\bar{x} = 1.32$), Fashion and designers ($\bar{x} = 1.27$), Pottery makers ($\bar{x} = 1.16$), Saw millers ($\bar{x} = 1.22$), Bakery ($\bar{x} = 1.22$), Block industries ($\bar{x} = 1.27$), Textile industries ($\bar{x} = 1.28$), Construction sites ($\bar{x} = 1.33$) and Hair saloons ($\bar{x} = 1.47$). Table 2 further revealed a weighted mean of 1.29 out of the maximum obtainable 4.00, which is less than the standard mean of 2.0. This implies that Akwa Ibom State University science education teacher trainees never visited entrepreneurial skill centres/professionals for skill acquisition.

Table 3: Independent T-test analysis of acquisition of entrepreneurial skills of science education teacher trainees by gender

Gender	N	Mean	Std. D	df	t	P-value	Remark
Male	28	25.86	6.742	142	2.156	.033	Sig.
Female	116	28.28	4.962				

*Sig. means significant

Table 3 reveals that there was significant difference between male and female science education teacher trainees' acquisition of entrepreneurial skills for global competitiveness ($t=2.156$; $df=142$; $P<.05$). Hence, the null hypothesis was rejected.

Table 4: Independent T-test analysis of frequency of visit of science education teacher trainees to entrepreneurial skill centres/professionals by gender

Gender	N	Mean	Std. D	df	t	P-value	Remark
Male	28	14.82	4.431	142	1.176	.242	N.S
Female	116	15.69	3.253				

N.S. Means Not Significant

Table 4 shows that there was no significant difference in how often Akwa Ibom State University male and female science education teacher trainees visit entrepreneurial skill centres/professionals for skill acquisition ($t=1.176$; $df=142$; $P>.05$). Hence, hypothesis 2 was not rejected.

DISCUSSION OF FINDINGS

The result from the data analyses showed that science education teacher trainees do not acquire entrepreneurial skills for global competitiveness. This finding confirms the report that most Nigerian undergraduates lack entrepreneurial skills (Undiyaundeye & Out, 2015). This is in spite of the clamour for job creation, wealth creation and global competitiveness. However, Slavtchev et al. (2012) in a study on effects of entrepreneurship education on the intentions to become entrepreneurs observed a stimulating effect of entrepreneurship education on students' intentions to become entrepreneurs in the long-term; but a discouraging effect on intentions in the short-term. The reason for this result might be graduate's lack acquisition of entrepreneurial skills at graduation and need to look for training centre to acquire requisite skills.

The present study also revealed that Akwa Ibom State University science education teacher trainees never visited entrepreneurial skill centres/professionals for skill acquisition. This result of frequency of visit of Akwa Ibom State University science education teacher trainees to entrepreneurial skill was statistically significant. The school and formal institutions remains the primary channel through which adolescents acquire new skills and that these places alone are not sufficient to address the diverse skills but youths would have to attend places where they can acquire relevant skills that meet societal requirements (Nambiar et al., 2019).

Still in line with this, Achor et al. (2020) reveal that students did not attend entrepreneurship centres in the study area given some reasons such as: centres do not have written curriculum, many topics in prevocational studies curriculum do not recommend practical teaching strategy and even those that recommended were not taught practically by the entrepreneurship education teachers. But, that those students that attended other entrepreneurship centres through training acquired more skills.

Emezi and Emele (2021) observed that many graduates who tend to establish and be independent in their own little way often failed in the world of work which has been attributed to their little knowledge of what it takes to be an entrepreneur. Fresh graduates need to visit places/centres and skill professionals for adequate and up-to-date knowledge and training that will equip them and enhance their entrepreneurial abilities.

The result further showed that there was difference between the entrepreneurial skills' acquisition of male and female science education teacher trainees in favour of female and the difference was statistically significant. Obviously, one of the most crippling challenges in Nigeria and other third world countries is high level of male and female youth's unemployment as a result of lack of relevant practical and entrepreneurial skills (Florence & Ekpungu, 2015). It is common knowledge that about 80% of male and female graduates in most Nigerian universities find it hard to get employment every year (Undiyaundeye & Otu, 2015).

Male and female undergraduates need to make efforts to acquire basic skills for economic survival after schooling. Therefore, they need to prepare for future economic viability by acquiring relevant skills. Nambiar et al. (2019) aver that boys and girls should have similar skills and the same opportunities to acquire them.

Conversely, Omar et al. (2012) assessed the acquisition of employability skills among Malaysian community college students. These researchers also tested whether employability skills among students differed as a function of gender and work experience. The result of an independent t-test showed that there was no significant difference in employability skills by gender or work experience. The study suggested that institutions must make a greater effort to help male and female students acquire the employability skills required by many organizations.

CONCLUSION AND RECOMMENDATIONS

This study focused on reviewing pre-service teachers' training curriculum to equip trainees with entrepreneurial skills. The result obtained from the study showed that Akwa Ibom State University science education teacher trainees did not acquire entrepreneurial skills for global competitiveness; science education teacher trainees never visited entrepreneurial skill centres/professionals for skill acquisition.

The study also found significant difference between male and female science education teacher trainees acquisition of entrepreneurial skills for global competitiveness and there was significant difference in how often Akwa Ibom State University male and female science education teacher trainees visit entrepreneurial skill centres/professionals for skill acquisition.

Based on the results obtained from this research, individual undergraduates should clearly understand that the global market requirement after graduation goes beyond an ability to read and write, pen and paper examinations but will demand that they need to acquire specific skills that will meet the demands of the labour market and make them economically independent as they live in their world. The training institutions have the prerogative responsibility of reviewing the curriculum in such a way that will make provisions for trainees' acquisition of entrepreneurial skills before graduation. Based on the findings of the study, the following recommendations were made

- 1) Higher institutions of learning should review undergraduates' training curriculum to reflect skill acquisition opportunities for trainees after graduation. This will help trainees to transfer the same skills to the students they will teach when they become teachers. This means that

- entrepreneurial based curriculum at all levels of education should be incorporated and implemented.
- 2) Undergraduates should see the need to visit entrepreneurship centres/professionals for skill acquisition in addition to add to formal training received in schools.
 - 3) The training institutions should see the need to regularly mount sensitization programmes for prospective graduates. There is definitely a need for a change in the mind-set of the youths to self-employment as a vital and critical option before leaving school.

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