

Entrepreneurial Education Implementation at Secondary Schools for Self-reliance in Era of Economic Recession in Nigeria

By

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Abstract

Entrepreneurial education implementation at secondary schools for self-reliance in the era of economic recession in Nigeria was investigated in Port Harcourt City. The objectives were to determine: the level of entrepreneurial education implementation in Nigerian secondary schools, the entrepreneurial skills to be acquired at the secondary schools and the challenges facing the entrepreneurial education implementation in secondary schools. The study employed analytical survey design. Sample size consisted of 55 Chemistry teachers selected from public and private secondary schools in Port Harcourt City. Questionnaire on entrepreneurial education implementation (QEEI) was used to collect data. Test-retest method was used to determine reliability coefficient of 0.75 using Pearson product moment correlation (PPMC). Data collected were analyzed using frequency count, mean, standard deviation (SD) and T-test statistics. The study revealed that entrepreneurial education in Nigeria secondary schools is at low level due to a number of challenges such as: school time table not adequate, class size, finance, non-inclusion of entrepreneurial skills in the Senior Secondary Certificate Examination, National Examination Council, General Certificate Examination and Unified Tertiary Matriculation Examination, wrong use of teaching methods, lack of emphasis on implementation of entrepreneurial education by the ministry of education and other government agencies, lack of in-service training and poor condition of service, poor excursion trip to industries and textbooks introduced for instruction. The study also showed the entrepreneurial skills to be acquired at the secondary schools. However, there was no significant difference between the view of Private and Public Chemistry teachers on the challenges facing the implementation of entrepreneurial education. It was recommended that Government at all levels should endeavor to provide fund for the implementation of entrepreneurial education and enforce that such funds are not diverted or embezzled.

Key words: Entrepreneurial Education, Implementation, Self-reliance, Economic Recession

Introduction

In the National Policy on Education (FGN, 2014), it was clearly stated that education maximizes the creative potentials and skills of the individual for self-fulfillment and general development of the society. Education is an instrument for national development and social change (NPE, 2014). Ikemba (2016) referred to Secondary school education as education for career development which aims at providing trained manpower in the applied science, technology and commerce at the sub-professional grades. The secondary school education also aims at providing entrepreneurial, technical and vocational job specific skills for self-reliance, agricultural, industrial, commercial and economic development. Secondary school education is proposed in the National Policy on Education to make its graduate self-reliant but the reverse is the case. The curriculum for senior secondary school level consists of the following, Science and Mathematics, Technology, Humanities Business Studies. Subjects under technology according to (NPE) 2014 include: Technical Drawing, General Metal work, Basic Electricity, Electronics, Auto Mechanics, Building Construction, Wood work, Home management and food Nutrition. Okwukwe (2016) asserted that the reason for these subjects at the secondary school level is to empower students with entrepreneurial skills for personal survival and development after secondary school education.

It is therefore important to know that entrepreneurship education program at the secondary school level has not been achieved as spelt out in the (NPE) 2014. The concept of entrepreneurship has long been debated and used in various ways. Even today is no unanimity on what that term exactly means and who an entrepreneur is. Richard Cantillon was the first to use the term entrepreneur and defined it as one who buys factors of production at certain prices, and sells his products at uncertain prices. In a bid to further explain entrepreneurship, Ogu (2015) contended that entrepreneurship is the acquisition courage in order to create employment for self and others. Entrepreneurship involves exploring, evaluating and exploiting business opportunities before setting up in order to forestall the successes of such enterprises. From the above definition, entrepreneurship is not far from the acquisition of skills for personal development and employment. Entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation, showing initiation and risk-taking as well as the ability to plan and manage projects in order to achieve objectives (Ibekwe, 2016).

On this note, Gad (2016) proposed three main reasons for the need to pay attention to entrepreneurship Education; namely

- (a) Job creation and economic development
- (b) Strategic adjustments and realignment
- (c) Deregulation and the privatization of public utilities and state-owned enterprises.

Education is regarded as the greatest mass rewarding and ending investment in human capital (Ogu. 2015). It is a means of acquiring experience, knowledge and skills aimed at eliminating the shackles of ignorance thereby enhancing one's development as well as the development of one's community (Igwe, 2014). It is the pivotal process of training attitudinal disposition, spiritual, physical and intellectual capabilities and other potentials in order to attain a qualitatively better life. The education that provides for job creation is entrepreneurship education. Aliu and Ibe (2015) asserted that the goal of entrepreneurship education amongst others is to inculcate in the trainees the ability to:

- (1) Identify and solve problems using critical and creative thinking.
- (2) Consider self-employment as a viable option upon graduation from higher institutions
- (3) Organize and manage one-self and one's activities
- (4) Work together and cultivate the ability to resolve conflicts

Entrepreneurship education is thus designed to ensure an enlarged supply of entrepreneurs, diversity ownership of business, promote regional spread of economic activities, encourage self-employment for the unemployed and improve the health and standard of living of the people (Okoro, Ekwe and Ibekwe, 2013). Economic recession is when the economy declines significantly. That means there is a drop in the following five economic indicators: real Gross Domestic Product, income (GDP), employment, manufacturing and retail sales. In the teaching of subject like Chemistry at the secondary school level, students should be taught to develop entrepreneurial skills for human capital development. Teachers who are expected to produce not just job seekers but job creators are unfortunately not facilitated to do so. In this difficult situation, there is a growing awareness that the traditional academic education is inadequate to equip young people with the knowledge and skills needed to be self-reliant (entrepreneurs). In this struggle to survive, science education is not left out. Science education in the 21st century has gone beyond teaching of science content and process in order to make traditional community scientific literate. Science education now involves the applicability of science process skills acquired to bring innovation and jobs creation. That is, emphasis is not only on knowledge acquisition but on how to be highly productive with knowledge acquired. In order to meet this challenge, many countries of the world including Nigeria are introducing Entrepreneurship Education (EE).

Skills enable one to use capacities in particular ways as the environment, human beings and other situation. It is the ability to perform tasks creditably (especially with speed and precision), constant practice also helps to improve the skills. On the other hand, skills at the work place are what workers give in exchange for remuneration (Arokoyu&Obunwo2014). Entrepreneurial skills are the abilities an individual has to exploit an ideal and create an enterprise (big or small) for personal as well as developmental gain. Such abilities include inner discipline (mind), risk-seeking and risk-taking, innovation, change-orientation and persistency (Arokoyu & Obunwo 2014). Other abilities are boldness, empathy, self-belief, readiness to take advice and ability to recognize opportunities. Akah (2016) referred to them as occupational survival skills and in Science education, they are called science process skills. These are strategies a scientist adopts in order to arrive at the product of science. The skills include observing, classifying, comparing, communicating, measuring, counting, recording, predicting, hypothesizing, defining, researching,

interpreting data, experimenting, identifying and controlling variables, modeling and generalizing et cetera. When these process skills are developed, they lead to acquisition of entrepreneurial skills that successful entrepreneurs use to start and operate their ventures. In fact, during science teaching and learning, certain skills such as critical thinking, rational reasoning, communication, teamwork, creativity, diversity and even leadership are imbibed by students. These constitute entrepreneurial skills as well. The person who harnesses and utilizes these entrepreneurial skills, turning ideas into commercial products is referred to as the entrepreneur. An entrepreneur perceives business opportunities and takes advantage of the scarce resources to use them (Arokoyu, 2014). An entrepreneur is innovative, prepared to risk resources (energy and financial) to achieve unpredictable results, creating incremental wealth in the process. Thus, in the face of growing unemployment in Nigeria with its attendant threatening consequences, it is needful for science teaching and learning to be geared towards inculcating entrepreneurial skills among students to make them self-reliant after schooling.

Thus, Entrepreneurial Education in the era of recessive economy is a concern for self-reliance. Although the National Policy on Education (FGN, 2014) at the senior secondary school level outlined the entrepreneurial subjects to be offered. The question now is what is the level of the implementation of this entrepreneurial education program? What are the challenges affecting the effective implementation of the program? Are we really sure that after secondary school, students can be self-reliant? It is important that these questions be answered because if entrepreneurial education is fully implemented at the secondary school level, students will not only be self-reliant but survive in the era of economic recession. It is in view of this that the study focused on entrepreneurial education implementation at secondary school level for self-reliance in era of economic recession in Nigeria.

Statement of the Problem

Most teachers struggle to cover scheme of work without special class that promotes entrepreneurial skills acquisition among the students in secondary schools. Teaching entrepreneurial skills at the secondary school level will make students entrepreneurs before University education. But reverse is the case. After secondary school education, students cannot be self-employed because no entrepreneurial skill has been acquired. Part of the way forward in Nigerian economic recession is the production of students from secondary school level who can solve the societal problems with or without University education. Although it was stated in NPE(2014) that secondary school curriculum should involve the teaching of vocational studies eg: wood work, basic electricity, building construction et cetera, alas!, students cannot be self-reliant on graduation because entrepreneurial education program in secondary school is at a level nobody can explain. Consequent upon this, the study focused on entrepreneurial education implementation at secondary schools for self-reliance in era of economic recession in Nigeria.

Research Questions

The following research questions guided the study.

1. What is the level of entrepreneurial education implementation in Nigerian secondary schools?
2. What entrepreneurial skills should be acquired at secondary schools to promote self-reliance?
3. What are the challenges facing the implementation of entrepreneurial education program in Nigerian secondary schools?

Hypothesis

A null hypothesis guided the study.

Ho₁: There is no significant difference between the views of private and public secondary school Chemistry teachers on the challenges facing the implementation of entrepreneurial education program in Nigerian secondary schools.

Methodology

The study employed analytical survey design and was carried out in Port Harcourt City, Rivers State. The population consisted of 117 Chemistry teachers in 12 Public secondary schools and 75 Private secondary schools in Port Harcourt City. Sample size of 55 Chemistry teachers which represents 48% of the total population was selected using stratified random sampling technique from 12 public secondary schools and 27 Private secondary schools. Research instrument entitled: Questionnaire on entrepreneurial education implementation (QEEI) designed in a four point Likert – scale of (Strongly Agree = SA, Agree – A, Disagree = D, Strongly Disagree SD) rated 4, 3, 2, and 1 respectively was used to collect necessary data. Face, content and construct validity of the instrument were ascertained by two experts in the department of curriculum studies and educational technology, University of Port Harcourt. The corrections were incorporated in to the final format of the instrument. The modified instrument was tested and reliability index of 0.75 was established using Pearson product moment correlation. Data collected were analyzed using appropriate descriptive statistics of frequency counts, mean, standard deviation (SD), and T-test. The mean of 2.5 was taken as the bench mark or mean criterion for taking decision such that a mean response that falls below 2.5 was not significant while a mean response on or above 2.5 was significant. The hypothesis generated was tested at 0.05 level of significance in order to find the difference between the mean values of public and private Chemistry teachers on the entrepreneurial education implementation in Nigerian secondary schools.

Results

The results of the statistical analysis of the research questions and the null hypothesis are presented on the following tables:

Research question 1: What is the level of entrepreneurial education implementation in Nigerian secondary schools?

Table 1: mean analysis of Chemistry teachers' response on the level of entrepreneurial education implementation in Nigerian secondary schools

| S/N | ITEMS | VHL | HL | ML | LL | \bar{X} | DECISION |
|-----|---|-----|----|----|----|-----------|----------|
| 1 | Teaching of Technical Drawing and Introductory Technology | 24 | 11 | 12 | 8 | 2.9 | ML |
| 2 | Teaching of Metal and wood work eg Carpentry, furniture making, roofing and welding | 5 | 13 | 16 | 21 | 2.0 | LL |
| 3 | Teaching of Basic Electrical wiring and Installations | 6 | 13 | 16 | 20 | 2.09 | LL |
| 4 | Teaching of Electronics, Auto Mechanics, | 07 | 10 | 13 | 25 | 1.9 | LL |
| 5 | Teaching of Building Construction, Hair and bead making and Sowing | 06 | 08 | 21 | 20 | 2.0 | LL |

VHL=Very High Level, HL= High Level

ML = Middle Level, LL = Low Level

The result in table 1 shows that 4(80%) out of the 5(100%) items are at low level while only 1 item (20%) is at middle level. This implies that entrepreneurial education in Nigerian secondary schools is at low level.

Research Question 2: What entrepreneurial skills should be acquired at secondary schools to promote self-reliance?

Table 2: mean analysis of Chemistry teachers' response on the entrepreneurial skills to be acquired in secondary schools

| S/N | ITEMS | SA | A | D | SD | \bar{X} | DECISION |
|-----|--|----|----|----|----|-----------|-----------|
| 1 | Making of perfumes, local soap and detergents for sale | 25 | 10 | 11 | 09 | 2.92 | Agreed |
| 2 | Carpentry, furniture making, roofing and welding | 21 | 17 | 12 | 05 | 2.98 | Agreed |
| 3 | Wiring and Installations of home appliances | 26 | 13 | 10 | 06 | 3.07 | Agreed |
| 4 | Construction of lightening conductors to control thunder storms in building | 27 | 15 | 13 | - | 3.25 | Agreed |
| 5 | Making laundry cleaners, producing laboratory reagents, acid-base indicators | 27 | 28 | - | - | 3.49 | Agreed |
| 6 | Production of plastics, cement, paints, blowing glass into different shapes | 24 | 11 | 12 | 8 | 2.9 | Agreed |
| 7. | Stating of Dalton's atomic theory | 04 | 10 | 20 | 21 | 1.9 | Disagreed |
| 8. | Producing aerosols and bottling gas and bathing soaps for sale, | 25 | 19 | 10 | 01 | 3.23 | Agreed |
| 9. | Producing atomic models to show the relative position of electrons, protons and neutrons | 22 | 13 | 10 | 10 | 2.85 | Agreed |
| 10 | The design and construction of boats and fishing instruments. | 21 | 26 | - | 8 | 3.09 | Agreed |

The result in table 2 showed the calculated mean scores of all the items which are 2.92, 2.98, 3.07, 3.25, 3.49, 2.9, 1.9, 3.23, 2.85 and 3.09 respectively. The mean scores of items 1,2,3,4,5,6,8,9,10 fell above the criterion mean of 2.50. This showed that Chemistry teachers agreed that entrepreneurial skills such as making of perfumes, local soap and detergents for sale carpentry, furniture making, roofing and welding, wiring and Installations of home appliances construction of lightening conductors to control thunder storms in building, making laundry cleaners, producing laboratory reagents, acid-base indicators, production of plastics, cement, paints, blowing glass into different shapes, producing aerosols and bottling gas and bathing soaps for sale, producing atomic models to show the relative position of electrons, protons and neutrons and the design and construction of boats and fishing instruments should be acquired at secondary schools to promote self-reliance

Research Question 3: What are the challenges facing the implementation of entrepreneurial education in Nigeria secondary schools?

Table 3: Mean analysis of Chemistry teachers' response on challenges of entrepreneurial education implementation in Nigerian secondary schools.

| S/N | ITEMS | SA | A | D | SD | \bar{X} | DECISION |
|-----|--|----|----|----|----|-----------|-----------|
| 1 | School time-table not adequate | 27 | 10 | 09 | 09 | 3.0 | Agreed |
| 2 | Class size | 23 | 15 | 12 | 05 | 3.01 | Agreed |
| 3 | Teachers are not interested to teach the subjects | - | 13 | 10 | 32 | 1.65 | Disagreed |
| 4 | Finance | 27 | 15 | 13 | - | 3.25 | Agreed |
| 5 | Some of these entrepreneurial skills are not compulsory in SSCE, NECO, GCE and UTME. | 28 | 27 | - | - | 3.50 | Agreed |
| 6 | Teachers' wrong use of method of teaching in the classroom | 24 | 11 | 12 | 8 | 2.9 | Agreed |
| 7. | Lack of emphasis by the ministry of education and other government agencies | 25 | 09 | - | 21 | 2.69 | Agreed |
| 8. | Textbooks introduced in school for instruction | 28 | 11 | 10 | 06 | 3.10 | Agreed |
| 9. | Poor excursion trip to industries | 20 | 15 | 10 | 10 | 2.81 | Agreed |
| 10 | Lack of in-service training and poor condition of service | 21 | 26 | - | 8 | 3.09 | Agreed |

Result in table 3 showed that nine (9) out of the ten (10) items are agreed while one (1) item is disagreed. This implies that 90% of the items are challenges to successful implementation of entrepreneurial education in Nigerian secondary school.

Hypothesis

There is no significant difference between the view of private and public secondary school Chemistry teachers on the challenges facing the implementation of entrepreneurial education in Nigeria secondary schools.

Table 4: T-test on the challenges facing entrepreneurial education Implementation in Nigerian Secondary schools

| Secondary Sch. Teachers | N | (\bar{X}) | SD | Df | t-cal | t-crit | Remark |
|-------------------------|----|---------------|------|----|-------|--------|-----------------|
| Private School Teachers | 22 | 14.06 | 6.10 | 53 | 0.535 | 1.960 | Not Significant |
| Public School Teachers | 33 | 15.72 | 4.60 | | | | |

* Significant at 0.05 level

The results in table 4 showed that at 53df and 0.05 alpha level, the t-calculated value of 0.535 is less than the t-critical value of 1.960. This showed that there is no significant difference between the view of the private and public Chemistry teachers on the challenges facing the implementation of entrepreneurial education in Nigeria secondary schools.

Discussion of Findings

The result of the analysis of research question one revealed that entrepreneurial education in Nigerian secondary schools is at low level. Ibezim (2016) made it clear that high level of implementation of entrepreneurial skills at the secondary school will offer students good opportunity to be entrepreneurs after school. In Arokoyu and Obunwo (2014), it was observed that by the time students go through senior secondary 2 and 3, they would have been grounded in such skills. The results in table two showed that Chemistry teachers agreed that entrepreneurial skills such as making of perfumes, local soap and detergents for sale carpentry, furniture making, roofing and welding, wiring and Installations of home appliances construction of lightening conductors to control thunder storms in building, making laundry cleaners, producing laboratory reagents, acid-base indicators, production of plastics, cement, paints, blowing glass into different shapes, producing aerosols and bottling gas and bathing soaps for sale, producing atomic models to show the relative position of electrons, protons and neutrons and the design and construction of boats and fishing instruments should be acquired at secondary schools to promote self-reliance. The result agreed with the findings of Okwukwe (2016) that secondary school education offers the opportunity for the acquisition of entrepreneurial skills for self-reliance.

The results of the analysis in table 3 identified the following as the challenges facing entrepreneurial education implementation: *School time table not adequate, *class size, *finance, *Non-inclusion entrepreneurial skills in the SSCE, NECO, GCE and UTME, *wrong use of teaching method, *lack of emphasis by the ministry of education and other government agencies, *lack of in-service training and poor condition of service, poor excursion trip to industries and textbooks introduced in school for instruction. These findings are in agreement with the observation of Ikemba (2016) that the complete implementation of entrepreneurial education in Nigerian secondary schools is yet to be achieved as a result of number of challenges. On the other hand, the results of the statistical test of the hypothesis in table four showed that there is no significant difference between the view of the private and public Chemistry teachers on the challenges facing the implementation of entrepreneurial education in Nigeria secondary schools. This result is reasonable when one recalls that entrepreneurial education program is expected both in public and private schools.

Conclusion

The study showed that entrepreneurial education in Nigerian secondary schools is at low level. This means that it has not been fully implemented due to number of challenges. The findings of the study revealed that many factors such as: *School time table not adequate, *class size, *finance, *Non-inclusion entrepreneurial skills in the SSCE, NECO, GCE and UTME, *wrong use of teaching method, *lack of emphasis by the ministry of education and other government agencies, *lack of in-service training and poor condition of service, poorexcursion trip to industries and textbooks introduced in school for instruction are responsible for poor implementation of entrepreneurial education in Nigerian secondary schools. However, the study showed that the following entrepreneurial skills can be acquired at the secondary schools: making of perfumes, local soap and detergents, carpentry, furniture making, roofing and welding, wiring and Installations of home appliances, construction of lightening conductors to control thunder storms in building, making laundry cleaners, producing laboratory reagents, acid-base indicators, production of plastics, cement, paints, blowing glass into different shapes, producing aerosols, bottling gas and bathing soaps, producing atomic models to show the relative position of electrons, protons and neutrons and the design and construction of boats and fishing instruments

Recommendations

Based on the results of the findings of this research work, the following recommendations were made:

1. Government at all levels should endeavor to provide fund for the implementation of entrepreneurial education and enforce that such funds are not diverted or embezzled.
2. The ministry of education and other education agencies should improve the level implementation by making it a point of responsibility to monitor the implementation of entrepreneurial education in Nigerian secondary schools especially in the present day recessive economy.
3. Writing of vocational subjects such as wood work, electronics repairs, building construction, basic and applied electricity, sewing, bead making, hair dressing et cetera should be compulsory in SSCE, NECO, GCE and UTME.

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