
DEVELOPING EFFECTIVE ENTREPRENEURSHIP TALENT AMONG POLYTECHNICS' STUDENTS IN NIGERIAN (A CASE STUDY OF NORTH-EASTERN NIGERIA)

By

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Abstract

The introduction of entrepreneurship education and making it compulsory course for all Nigerian polytechnic students irrespective of discipline, the present study sought to determine the impact of entrepreneurship education on polytechnic students' entrepreneurial talents and skills. The study employed descriptive survey design; 241 graduating class students constituted the study sample. Three research questions and hypotheses were developed to guide the conduct of this study. Well-designed structured questionnaire was employed to collect primary data for this research. The result was analyzed with mean rating and standard deviation while the developed hypotheses were tested with regression analysis. The study revealed that entrepreneurship education has exercised great influence on entrepreneurial talent and entrepreneurial intention, with a large number of respondents expressing preference for entrepreneurial vocation if support facilities are put in place. The paper concluded that entrepreneurship education has had a significant impact on entrepreneurial talent. It finally recommended that functional support system should be put in place to harness the new passion for entrepreneurship in Nigerian graduates.

Keywords: *Entrepreneurship Education, Talent.*

1.0 Background of the Research

In Nigeria, higher technical education is mainly provided in Polytechnics (and in some few technical universities). Technical education is essentially entrepreneurial; it seeks to equip students with functional knowledge, skills, attitudes and related competences that they may readily apply in creating value, i.e., goods and services (Idogho and Ainabor, 2011).

Therefore, Polytechnics are established to produce the highest possible levels of technical manpower to enhance national development (FGN, 2004). The unarticulated caveat is that the Polytechnic system is aligned well enough to achieve the desired objectives. Over the years however, it was realized that products of the Polytechnic system though fairly equipped with the requisite knowledge and skills are most often incapable of using the acquired competences to initiate value adding economic ventures that will contribute to the overall drive of the country at fighting poverty and fostering economic growth and development (Bubou and Okrigwe, 2016).

This type of scenario is not the sole experience of Nigeria; even developed countries with better educational systems such as the United Kingdom do wonder whether graduates are equipped with the right skills (Raybould and Sheedy, 2005). Therefore, the Federal Government of Nigeria (FGN) took the path of promoting entrepreneurship through entrepreneurship education in order to produce a critical mass of graduate entrepreneurs necessary for economic development (Nkamnebe, Mitra, Abubakar and Sagagi, 2015). This was done by simply adding entrepreneurship subjects to the curricula of the various programmes offered in all higher educational institutions (Kabongo and Okpara, 2010).

Laudable as the FGN's pro-entrepreneurship efforts are, the implementation lacks a defined strategy dovetailed to the peculiarities of fostering the entrepreneurial spirit among students under the formal education system. Therefore, the focus of almost all of the entrepreneurship programmes is correctly on the provision of entrepreneurial competences, the delivery ended up using the inappropriate pedagogic mechanism widely used in Nigeria's HEIs the lecture method (Acs, 2010). Thus, students ended up learning by rote some concepts in entrepreneurship just to pass the written examination. In as much as the end envisaged of entrepreneurship education is to produce actual entrepreneurs who will initiate and nurture viable enterprises for sustainable economic development of the nation, the FGN's programmes are a monumental failure, as evidenced by the rising levels of graduate unemployment, widespread poverty, and falling economic indicators (Animn, 2012). In fact, Adejimola and Olufunmilayo (2019) reported that about 70% of the Polytechnic graduates find it difficult to get employment every year. Why?

One of the major gaps in the success potentials of the entrepreneurship programmes of Nigeria's HEIs lies not only in the use of the wrong pedagogy but also in the blurring of the distinction between small business management and entrepreneurship. The two fields are often erroneously treated as one and the same (Solomon, Duffy and Tarabishy, 2002).

A cursory perusal of the entrepreneurship curriculum current in all the Polytechnics reveals that the courses offered are variously titled Small Business Management, Business Entrepreneurship, Small Business Start Up, Entrepreneurship, Entrepreneurship Development Programme, and similar nomenclatures. However, the contents of the courses remain virtually identical, and were designed not for entrepreneurship education but obviously about

entrepreneurship education and delivered to students via the lecture mode. Furthermore, evaluation of students' performance in the entrepreneurship courses is by written examination, an evaluation approach equally as inappropriate as the pedagogy used in teaching the courses. Students end up getting the scores and not the skills. One of the research proposers could well remember scoring an "A" in the course Computer Appreciation without ever having assembled a simple desktop or booting same, simply because there were no computers then, and their lecturer had to teach using his lecture notes only plus the ubiquitous chalk board.

Hence, if entrepreneurship education is to produce the needed graduate entrepreneurs capable of generating real growth and wealth and fighting poverty, the challenge to educators will be to craft entrepreneurial courses, programmes and major fields of study that meet the rigours of academia while keeping a reality-based focus and entrepreneurial climate in the learning experience environment (Block and Stumpf, 1992).

In other words, there is the imperative for entrepreneurial education to focus more on the end result envisaged (sustainable supply of graduate entrepreneurs), and employ more experientially-based pedagogies in the course delivery process. This imperative provides the justification for the need to reconsider the contents of all entrepreneurship programmes offered in Nigerian Polytechnics, design an appropriate pedagogy for teaching the programmes, develop effective evaluation strategies, and situate the entire programme in the most relevant unit in the Polytechnics for outcome-focused implementation. This is the thrust of this research.

1.2 Statement of the Research Problem

From the foregoing introduction, it can be surmised that whereas fostering entrepreneurial skills are universally acknowledged as the requisite underpinnings for fighting poverty and inducing economic growth and development, it has been seen that the Federal Government's effort at cultivating such skills through engrafting entrepreneurship onto the existing programme offerings in Nigeria's Higher Educational Institutions (HEIs) is a stop-gap measure that ends up poorly preparing students as potentially active entrepreneurs.

Therefore, the intended outcome of the programme generating needed critical mass of entrepreneurs to innovatively drive the Nigerian economy seems to be defeated. In view of this, there is need to properly articulate a curriculum for and not about entrepreneurship education, develop appropriate entrepreneurial pedagogies, and build a dedicated Centre for streaming the programme in the entire Polytechnic system so as to meet the aims and objectives of the programme, viz., the production of capable enterprising graduates who will form the core of the nation's drive at economic development.

This is imperative considering the terrible reality of unemployment among the potentially most productive segment of the Nigerian populace. Awogbenle and Iwuamadi (2018) observed from the excerpts of statistics obtained from the National Manpower Board and Federal Bureau of Statistics showed that Nigeria has a youth population of eighty (80) million representing 60 percent of the total population of the country. Sixty-four (64) millions of them are unemployed while one million six hundred thousand (1.4 million) are underemployed.

In fact, such employment condition can affect survival, and economic development of a nation. This situation came about as a result of the fact that over 51% of graduates in

Nigeria lacks the skill, discipline, and knowledge required to make them economically productive and employable (Barbagelata, 2019). Entrepreneurship education has been touted as a viable tool for arresting and reversing such ugly trend. Thus, the Federal Government, mandated all HEIs to focus on entrepreneurship by including it as a subject in their curricula (Akpomi, 2008). Therefore, this study seeks to evaluate the present entrepreneurship development programmes run in Nigerian HEIs in the light of the institutional and pedagogical challenges bedeviling effective skill development among polytechnics Students in Nigeria.

1.3 Objectives of the Research

The problem associated with entrepreneurship education as presently obtainable in Nigerian Polytechnics underpins this research study. Accordingly, the general purpose of this study is to evaluate the contents, pedagogical processes, management structures and expected outcomes of entrepreneurship education as currently provided by all the Polytechnics of the Northeast geo-political sub-region of Nigeria with a view to developing a more outcome-focused alternative that helps generate the critical mass of entrepreneurial graduates upon whose subsequent activities the socio-economic development of the region in particular and the nation in general rests. Specifically, the study will seek to attain the following objectives:

1. To determine the effective teaching methods and strategies teachers currently employ in teaching entrepreneurship.
2. To determine if the evaluation system used appropriate to the intended outcome of producing potentially active graduate entrepreneurs.
3. To determine if the available teaching facilities are effective in teaching of entrepreneurship.
4. To determine the level of preparedness of the teachers teaching the entrepreneurship course

2.0 Literature Review

2.1 Definition of Entrepreneurship

In 2005 the entrepreneurship division of the Academy of Management conducted a survey among its members, supplying them with a choice of possible definitions for entrepreneurship, to vote for a statement about the specific domain entrepreneurship division. The majority voted for the following one: Specific Domain: the creation and management of new businesses, small businesses and family businesses, and the characteristics and special problems of entrepreneurs. Major topics include: new venture ideas and strategies, ecological influences on venture creation and demise, the acquisition and management of venture capital and venture teams, self-employment, the owner-manager, management succession, corporate venturing and the relationship between entrepreneurship and economic development. Due to this variety of topics including elements of several domains such as economics, sociology, and psychology just to name a few there is still no generally accepted definition of “entrepreneurship” or the “entrepreneur.”

In fact, the lack of a commonly recognized definition of these terms is seen as one major obstacle for researchers in contributing to the understanding of this phenomenon (Shane and Venkataraman, 2000). A large number of definitions have been given in many

research contributions dealing solely with the issue of defining entrepreneurship. These definitions often focus on certain aspects. Shapero (1975, p. 187) thinks of entrepreneurship as a kind of behaviour that includes:

- (i) initiative taking,
- (ii) the organizing or recognizing of social economic mechanisms to turn resources and situations to a practical account, and
- (ii) the acceptance of risk of failure.

Gartner (1988, p. 64) takes a behavioral approach and considers entrepreneurship as a role that individuals undertake to create organizations. He adds that entrepreneurship ends when the creation stage of the organization ends. The pursuit of opportunities is central to the definition of Stevenson, Roberts and Grousbeck (1989, p. 23): Entrepreneurship is a process by which individuals either on their own or inside organizations pursue opportunities without regard to the resources they currently control. This definition does not necessarily postulate that the creation of an organization is involved in being an entrepreneur. Entrepreneurship can also occur within organizations, building a bridge to the concept of intrapreneurship. Finally, Shane and Venkataraman (2000, p. 218) give a definition of entrepreneurship as a scientific discipline. They define it as the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated and exploited. Consequently, the field involves the study of sources of opportunities; the process of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them.

Following this latter definition, we define entrepreneurship in the context of this research project as the discovery, evaluation and exploitation of opportunities to create future goods and services by a natural individual through the creation of a new organization. In this report, we call these new organizations start-ups or new businesses and use the term “to start an own business” for any entrepreneurial activity as defined above.

2.2 Meaning of Entrepreneurship Education

A number of academic works have reported on the state of the art of entrepreneurship education (Block and Stumpf, 1992; Gorman, Hanlon and King, 2007). While most of these works were not explicit on the definition of entrepreneurship education, one paper states that “educational orientation, teaching strategies, learning styles, curricula design and entrepreneurship structures” (Gorman, Hanlon and King, 1997 p. 26 p. 26) are the most relevant dimensions to consider in defining the term entrepreneurship. Other researchers present a framework of entrepreneurial orientations consisting of “conformist, adaptive, transformative” and process approaches (Bechard and Toulouse, 1998). More recently, entrepreneurship education is championed as a mainstay of any entrepreneurship ecosystem (Isenberg, 2010; Fetters et al, 2010; Neck, Greene and Brush, 2014). The list of varying conceptualizations of the term may go on indefinitely. Thus, there is no substantive agreement about what entrepreneurship means in educational settings and the appropriate content of programmes is under permanent discussion (Gibb, 2002).

Entrepreneurship Education, according to Ekankumo and Kemebaradikumo (2011), is that education which assists students to develop positive attitudes, innovation and skills for self-reliance, rather than depending on the government for employment. This definition was apparently proffered against the backdrop of the government’s rationale for championing entrepreneurship education as a panacea to the rising levels of graduate unemployment

occasioned by the massive graduate turnout from Nigeria's HEIs and the concomitant inability of both the private and public sectors of the Nigerian economy to absorb these graduates. Whatever the rationale, entrepreneurship education was provided was considered a vehicle for teaching entrepreneurship to students. Looked from the other side, entrepreneurship education is meant to provide students the opportunity to learn entrepreneurship.

Entrepreneurship teaching is the process of providing individuals with the knowledge and skills to recognize opportunities that others have overlooked and to have the insight, self-esteem, and confidence to act where others have hesitated (Summit Consulting LLC. 2009). Entrepreneurship teaching aims to be a source of trigger-events aiming to inspire students, arouse emotions, and change mind-sets (Al-Laham, Souitaris, and Zerbinati, 2007). On the other hand, entrepreneurial learning is a problem-solving process centered on the acquisition, storage and use of entrepreneurial knowledge in long term memory (Rae and Carswell, 2000). This harmony in the outcomes of teaching and learning entrepreneurship can be operationalized effectively only if there is harmony between the enabling instrument for entrepreneurship education (a policy), the extant curriculum and course specifications on entrepreneurship, the relevant entrepreneurial pedagogy, teaching facilities and resources, and institutional infrastructure. At present, such harmony seems to be elusive in Nigerian Polytechnics.

For the purposes of this research, we define entrepreneurship education as a method whereby students of all classes practice the art and science of creating, finding, and acting on opportunities of creating economically valuable and needed goods and services (Neck, Brush and Greene, 2014).

Entrepreneurship education within HEIs generally consists of a nested set of activities, including curriculum, co-curricular activities, and research efforts (Brush, 2015; and Kuratko, 2005) geared towards the production of ready-to-act potential entrepreneurs. Importantly, the decisions around entrepreneurship education include everything from learning objectives, topics covered, selection of materials (including cases, exercises, and concepts), pedagogy, and delivery mechanisms (Brush, 2015, p. 30). Each of these decisions should flow from an institution's intentionally selected definition of entrepreneurship, along with the role of theory and the degree of integration across classes, programmes, etc. (Neck, Greene, and Brush, 2014). Entrepreneurship education also varies across audiences. For instance, programmes focused on youth (primary and secondary school) may focus on the desirability and feasibility of business start-ups in order to influence the students' intentions (Peterman and Kennedy, 2003). At the polytechnic or university level, the programme may focus more on skills and competencies associated with developing venture ideas, pathways into entrepreneurship, market testing, and building a business model. In local training area, curricula might focus on ways to launch a small firm, become self-employed, or to buy a franchise.

Audience might also be defined by the type of business being pursued. In the U.S., entrepreneurship education, particularly that offered through academic institutions, is often viewed as targeted toward the development of fast growth, technology-based businesses, while in Europe, entrepreneurship education is often more connected to the SME community (Small and Medium Sized Enterprises). In China, the focus is usually on a more general "start-up" approach (Zhou and Xu, 2012), and in Qatar it is on diversification into non-oil-related businesses. The audience in Nigeria closely follows that of Europe, as the focus is on

the generation of a critical mass of small and medium entrepreneurs who are expected to catalyse the process of employment generation and economic development generally. Across countries, there are different emphases, depending on the context and, in some cases, industrial policy. For instance, New Zealand and Ireland have supported the creative industries, while Israel has supported internet and other electronic technologies.

Nigerian support mainly goes to SMEs in line with most of the policy objectives of Federal Government's Entrepreneurship Development Programmes. Overall, "a growing critique of entrepreneurship education is that it needs to give more attention to the development of entrepreneurial attitudes, aspirations, and activities" (Regele and Neck, 2012, p. 25) or what has been referred to as the entrepreneurial mindset.

Although research regarding the effectiveness of entrepreneurship education has grown over time (Gartner and Vesper, 1994; Henry, Hill, and Leitch, 2005), there are questions about the overall impact in the actual increase in the number of businesses (Weaver, Dickson, and Solomon, 2008). Yet this narrow outcome of new business formation in entrepreneurship education has come under recent scrutiny (Vanevenhoven and Liguori, 2013). As a result, impact is now being measured by the relative increase in positive perceptions of entrepreneurship and even an intentionality toward being entrepreneurial. The actual relationship between those intentions and actual entrepreneurial behaviors remains an active area of study, but emerging findings suggest that there is indeed a positive relationship between entrepreneurship education and entrepreneurial behaviors (Singer, Amoros and Moska, 2015).

As entrepreneurship education has advanced, so has our understanding of what is required to learn and practice entrepreneurship. Today greater attention is placed on cultivating the entrepreneurial mindset of students, and such a mindset is the precursor to both behaviour and action. Ground-breaking research (Sarasvathy, 2008) has empirically supported that entrepreneurs do think in a particular way that distinguishes them from managers. However, this is in stark contrast to trait theorists (Fisher and Koch, 2008), who believe entrepreneurs possess certain innate personality characteristics. The entrepreneurial mindset is learnable and teachable; innate traits are not. The entrepreneurial thinking patterns discovered and supported by ongoing research (Sarasvathy, 2008; Neck and Greene, 2011; Noyes and Brush, 2012) are fundamentally changing how we approach entrepreneurship education. The starting point is no longer the idea, the opportunity, or the business plan; rather, it's now about developing a mindset of acting, doing and creating.

2.3 Justification of Entrepreneurship Education Programmes

Various researchers have already attempted to assess empirically the impact of entrepreneurship education programmes on their students, controlling for the personal and environmental factors that might influence their orientations and behaviours (Lüthje and Franke, 2003). In particular, researchers have demonstrated that a favorable teaching environment might improve the way students consider entrepreneurship as a career option. Johannisson (1991) underscore the impact of students' perceptions of entrepreneurship, along with resources and other support mechanisms available in the environment of HEIs, on students' attitudes towards entrepreneurial careers. Other research has shown the importance of the social status of entrepreneurial activities and situations (Johannisson, 1991) and the statistical link between the level of entrepreneurial intention and the number of management

courses taken by students enrolled in other programmes (Chen et al., 1998).

On the other hand, entrepreneurship education programmes have been shown to influence both the current behaviour and the future intentions of their participants (Kolvereid and Moen, 1997), with significant differences observed between students who had taken entrepreneurship courses and those who had not. Noel (2001) looked specifically at the impact of entrepreneurship training on the development of entrepreneurial intention and the perception of self-efficacy. The students in this sample had all taken an entrepreneurship education programme and were graduates in entrepreneurship, management or another discipline. Noel's findings at least partially confirmed the assumption that the entrepreneurship graduates were more likely to launch businesses and had a higher level of intention and a more developed perception of self-efficacy than other students. Other researchers have tried to explain the relationship between entrepreneurship programmes and individual characteristics, such as need for achievement and locus of control (Hansemark, 1998) or the perception of self-efficacy (Ehrlich *et al.*, 2000). They found that entrepreneurship education had a positive impact, enhancing these characteristics and the likelihood of entrepreneurial action at some point in the future.

Several researchers have attempted to identify whether specific educational variables (course content, teaching methods, teacher profile, resources and support, and so on) might significantly influence the outcome of a programme in terms of attitudes, values or knowledge. For example, Varela and Jimenez (2001), in a longitudinal study, chose groups of students from five programmes in three universities in Colombia. They found that the highest entrepreneurship rates were achieved in institutions that had invested the most in entrepreneurship guidance and training for their students. Dilts and Fowler (1999) attempted to show that certain teaching methods (internships and field learning) were more successful than others at preparing students for an entrepreneurial career. Finally, Lüthje and Franke (2003) discussed the importance of certain contextual factors within the university environment that hinder or facilitate the access of technical students to entrepreneurial behaviour. Their findings mirror the essential elements of the Fayolle-Gailly model of entrepreneurship education (Fayolle and Gailly, 2008). For the purpose of this study, we shall adopt the said theory.

Before discussing the Fayolle-Gailly Model of entrepreneurship education, it is germane to present the changing nature of entrepreneurship education as the justification for the use of the selected model.

2.4 Theory of Entrepreneurship Education

Embedded on the literature (Anderson, 1995), and extending work in entrepreneurship education by Bechard and Gregoire (2005, 2007), Fayolle and Gailly (2008) have produced an entrepreneurship teaching model framework which they fittingly describe as "a canonic teaching model." The framework assists us in the understanding entrepreneurship teaching and learning (Fayolle and Gailly, 2008), as it allows for the integration of a number of dimensions which arise at the ontological and educational levels.

Table 1: Distribution of Respondents by Institution and Types

Institution	A	B	C	Total Respondents
Federal Polytechnic Bali	6	1	5	12
Federal Polytechnic Bauchi	51	1	5	57
Federal Polytechnic Damaturu	19	1	5	25
Federal Polytechnic Mubi	50	1	5	56
Mai Idris Aloomo Polytechnic Geidam	3	1	5	9
Ramat Polytechnic Maiduguri	37	1	5	43
Abubakar Tatari Ali Polytechnic Bauchi	8	1	5	14
Adamawa State Polytechnic Yola	19	1	5	25
Total	193	8	40	241

Key: A = Programme coordinators; B = Directors of entrepreneurship centres; C = Teachers of entrepreneurship and small business programmes

3.0 Data Presentation

We present the results of this study and discuss same according to the serial presentation of the objectives of the study. This schema is informed by the logic in the listing of the objectives. The first objective set the tune of the research by extracting what the respondents feel is or are the main ends of entrepreneurship education. The ends usually influence the choice of means by which such ends may be achieved. Thus, the subsequent results explain and deepen our understanding of the challenges facing entrepreneurship education in Nigeria.

It should be noted that data on some of the objectives mentioned above were captured using Likert-like scales featuring SA=Strongly agree, A=Agree, D=Disagree, and SD=Strongly disagree as anchors for the scales.

3.1 Main Goals of Entrepreneurship Education Programmes

We utilized Interman's (1992) typology of entrepreneurship to present our respondents with four main goals of entrepreneurship education: namely, entrepreneurship awareness, business creation, small business development, and training of trainers. Our respondents differ widely as to what is or are the main objectives of entrepreneurship education.

Table 2: Perception of Goals of Entrepreneurship Education

Main Goals of Entrepreneurship Education	Degree of Agreement							
	SA		A		DA		SD	
	F	%	F	%	F	%	F	%
Awareness	101	41.90	93	38.92	40	16.60	7	2.90
Business creation	93	38.92	58	24.07	77	31.95	13	5.39
Bus. development	123	51.04	36	14.94	22	9.13	60	24.90
Training trainers	0	0.00	47	19.50	92	38.17	102	42.32

On the average, data in Table 2 shows that most of the academics/faculty responsible for implementation of entrepreneurship education in Nigerian polytechnics are of the view that the main objective of the programme is three-pronged: to elicit from students an awareness of entrepreneurship, and use such awareness to hopefully set up businesses of their own or assist in the development of existing business. Most of the respondents are, however, emphatic that the programme is not a train the trainer programme, meaning that the students are actually the end product of the programme with no expectations for spin-off effect such that future associates of the beneficiary students are not taken into account as likely second-level beneficiaries of the entrepreneurial competencies the students acquired.

When queried about the nature of the entrepreneurship education offered in their polytechnics, the respondents were divided along three dimensions (Table 2). Some were of the view that their main task is to prepare students to be able to create businesses after graduation. This we term entrepreneurship education *for* enterprise. Others were of the opinion that entrepreneurship education is meant to merely raise students' awareness about the usefulness of entrepreneurship as a catalyst for self-reliance in the future. This we term entrepreneurship education *about* enterprise. Yet others averred that the programme is designed with existing entrepreneurs in mind to train them to be able to develop and grow their existing business ventures. This we term entrepreneurship education *in* enterprise

Table 3: On the Nature of Entrepreneurship Education

Nature of Entrepreneurship	Frequency	%
Entrepreneurship education <i>about</i> enterprise	186	77.18
Entrepreneurship education <i>for</i> enterprise	50	20.75
Entrepreneurship education <i>in</i> enterprise	5	2.07

Table 3, however, shows that most of the teachers and faculty (77.18%) responsible for implementing the programme in the polytechnics firmly believe that entrepreneurship education is all *about* enterprise, just to arouse students' awareness about entrepreneurship as a possible career option. This inclination has important consequence on the methods and strategies they employ in teaching the entrepreneurial courses assigned to them.

3.2 Learning Objectives of Entrepreneurship Education

To determine what learners are expected to ultimately take away as a result of taking an entrepreneurship course, we use Johannisson's (1991) schema to probe what our respondents' views concerning the learning objectives they seek to achieve in teaching entrepreneurship to their students. Learning objectives are what students will be able to do on completion of any given entrepreneurial programme. To determine this important objective with respect to entrepreneurship courses taught in our participating polytechnics, we accordingly asked our respondents to indicate their level agreement with respect to the five dimensions of Johannisson's (1991) entrepreneurial learning objectives.

The data in Table 4 makes it very clear that teaching staff handling entrepreneurship courses are greatly influenced by their conception of the overarching goals of entrepreneurship education. It has been shown in Table 5.1 that most of the teachers of entrepreneurship agree that the most important objective of entrepreneurship education is to raise students' awareness of the importance of entrepreneurship. This may explain why over half of them (69.30%) strongly agree/agree that the most important learning objective of the entire entrepreneurship education programme is to develop in participant an appreciation of the *why* of entrepreneurship is important in the overall programmes they study.

Table 4 Learning Objectives of Entrepreneurship Education

Entrepreneurship Learning Objectives	Degree of Agreement							
	SA		A		DA		SD	
	F	%	F	%	F	%	F	%
Develop the know why	89	36.93	78	32.37	52	21.58	22	9.13
Acquire the know how	59	24.48	59	24.48	62	25.73	61	25.31
Gain the know who	50	20.75	50	20.75	72	29.88	70	29.05
Master the know when	49	20.33	51	21.16	73	30.29	69	28.63
Attain the know what	45	18.67	49	20.33	79	32.78	69	28.63

4.0 Results:

Research Question 1: How teaching methods and strategies influence skills development among polytechnic students.

Table 5: Influence of Teaching Methods and Strategies Entrepreneurship on Skills Development

S/N	Teaching Methods and Strategies on Talent	Mean	SD
1	Starting my own business	3.73	.86
2	Exploiting opportunities	3.92	.79
3	Skill exploitation/commercialization	3.81	.86
4	Independence	3.78	.71
5	Financial autonomy	3.82	.73
6	Sense of achievement	3.93	.63
7	Being master of my own time	3.77	.83
8	Running personal business alongside paid	3.27	.81
9	Innovative action	3.45	.86
10	Being answerable to myself	3.67	.76
11	Risk expression	3.11	.72
12	Wealth creation	3.33	.67
13	Self-actualization	3.54	.83
14	Avoiding paid employment	3.12	.75

Table 5 shows the influence teaching methods and strategies on graduating students' talent development. Of the 14 items listed, majority of the graduating students' have enjoyed great impact of entrepreneurship education while all the others have enjoyed moderate influence. Entrepreneurship education influenced a desire for skill exploitation, independence; financial autonomy, wealth creation, exploiting opportunities; making money. However, all the other constructs enjoyed a rating of "moderate influence" only. The mean and standard deviation scores confirmed the rating of moderate influence, this demonstrate that the responses were relatively homogenous, as they clustered around their means.

Research Question 2: There issignificant influence of evaluation system on intended talent development among polytechnic students.

Table 6: Influence of evaluation system on intended talent development

S/N	Evaluation System	Mean	SD
1	Planning	3.78	.76
2	Generating Ideas	3.82	.89
3	Starting a Business	3.71	.76
4	Developing Creativity	3.68	.61
5	Managing Finance	3.72	.73
6	Product Development	3.83	.63
7	Business Communication	3.67	.83
8	Marketing Product	3.57	.81
9	Retaining Customers	3.65	.76
10	Innovation	3.77	.86
11	Financial literacy	3.61	.72
12	Funds Management	3.63	.87
13	Building a Team	3.64	.63
14	Leading a Team	3.42	.75

Table 6 shows the influence of evaluation system on intended talent development. Almost all constructs show significant on talent development with mean and standard deviation scores ranging from 3.61 to 3.87. Among the items, leading was the item with the lowest rating,

2.62 which was ranked as moderate influence. The standard deviation scores which ranged from 0.62 to 0.91 indicated that the respondents' ratings are relatively identical, since they clustered around the means.

Research Question 3: How available teaching facilities influence polytechnic students' entrepreneurship talent?

Table 7: Available teaching facilities influence polytechnic students' entrepreneurship talent

S/N	Entrepreneurship Talent	Mean	SD
1	Want to be self-employed right away	3.78	.76
2	Ready to be self-employed if I can't find a job	3.82	.89
3	Want to take advantage of my entrepreneurship	3.71	.76
4	Want to be a self-employed entrepreneur right	3.68	.61
5	Will happily become an entrepreneur immediately	3.72	.73
6	Would like to combine paid employment with	3.83	.63
7	Want to be self-employed sometime in future	3.67	.83

Table 7 reveals the influence of entrepreneurship education on the entrepreneurial talent of respondents. Entrepreneurship education has had great influence on respondents to seek self-employment if they cannot find a job. Similarly, entrepreneurship education has also had great very influence on respondents' desire to become self-employed sometime in future. Most respondents reported that they would prefer to be self-employed if they could garner adequate resources for entrepreneurial ventures, they would opt for entrepreneurship if the relevant support structures are put in place while almost everyone indicated a preference for combining entrepreneurship engagement with paid employment.

4.1 Results of test of Hypotheses

H02 There is no significant influence of entrepreneurship education on polytechnic students' entrepreneurial motivation

Table 8: Summary of Regression Analysis of the Influence of Entrepreneurship Education on Graduating Polytechnic Students' Entrepreneurship Talent

Model	N	R	R Square	Adjusted R Square	F-Cal	P- Value
1	241	0.13	0.16	0.01	6.81	0.01

Dependent Variable: Entrepreneurship Talent

Table 8 summarizes the regression results of influence of entrepreneurship education on graduating polytechnic students' entrepreneurship talent. The outcome signified that there is a positive correlation between entrepreneurship education and talent ($R = 0.13$) while R -squared is 0.16 which means that the independent variable (entrepreneurship education) explained 16% variations of the dependent variable (entrepreneurship talent). Therefore, entrepreneurship education has significant influence on entrepreneurship talent of polytechnic students ($F_{1,459} = 6.81, p = 0.01$).

Table of coefficients

Model	Unstandardized Standardized Coefficients Coefficients				
	B	Std. Error	Beta	T	Sig
1 Constant	3.31	0.30		10.91	0.00
Entrepreneurship Education	0.26	0.8	0.13	2.53	0.01

Table 9 shows that teaching methods significantly influence polytechnic students' entrepreneurship motivation ($B = 0.13$; $t(459) = 2.53$, $P = 0.01$). It indicates that at 5% level of significance, there is evidence from the regression equation that entrepreneurship education has significant influence on entrepreneurship motivation. Based on this, the null hypothesis was rejected and it was concluded that entrepreneurship education has significant influence on polytechnic students' entrepreneurship talent.

Table 10: Summary of Regression Analysis of the Influence of Entrepreneurship Education on Graduating Polytechnic Students' Entrepreneurship Talent

<i>Model</i>	<i>N</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>F-Cal</i>	<i>P- Value</i>
1	241	0.67	0.47	0.44	374.34	0.00

Dependent Variable: Entrepreneurship Talent

Table 10 summarizes the regression results of influence of entrepreneurship education on graduating polytechnic students' entrepreneurship talent. The outcome signified that there is a positive correlation between entrepreneurship education and talent ($R = 0.67$) while R-squared is 0.47 which means that the independent variable (entrepreneurship education) explained 16% variations of the dependent variable (entrepreneurship talent). Therefore, entrepreneurship education has significant influence on entrepreneurship talent of polytechnic students ($F_{1,459} = 374.34$, $p = 0.00$).

Table of coefficients

<i>Unstandardized Standardized Coefficients</i>					
<i>Model</i>	<i>B</i>	<i>Std.Erro</i>	<i>Beta</i>	<i>T</i>	<i>Sig</i>
1 Constant	6.18	0.18		31.91	0.00
Entrepreneurship Education	1.18	0.7	0.67	18.51	0.00

Table 11 shows that teaching methods significantly influence polytechnic students' entrepreneurship motivation ($B = 0.67$; $t(459) = 2.53$, $P = 0.00$). It indicates that at 5% level of significance, there is evidence from the regression equation that entrepreneurship education has significant influence on entrepreneurship motivation. Based on this, the null hypothesis was rejected and it was concluded that entrepreneurship education has significant influence on polytechnic students' entrepreneurship talent.

Table 12: Summary of Regression Analysis of the Influence of Entrepreneurship Education on Graduating Polytechnic Students' Entrepreneurship Talent

<i>Model</i>	<i>N</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>F-Cal</i>	<i>P- Value</i>
1	241	0.42	0.17	0.17	90.27	0.000

Dependent Variable: Entrepreneurship Talent

Table 12 summarizes the regression results of influence of entrepreneurship education on graduating polytechnic students' entrepreneurship talent. The outcome signified that there is a positive correlation between entrepreneurship education and talent ($R = 0.42$) while R-squared is 0.16 which means that the independent variable (entrepreneurship education) explained 16% variations of the dependent variable (entrepreneurship talent). Therefore, entrepreneurship education has significant influence on entrepreneurship talent of polytechnic students ($F_{1,459} = 6.81$, $p = 0.000$).

Table of coefficients

<i>Model</i>	<i>Unstandardized Standardized Coefficients</i>				
	<i>B</i>	<i>Std.Erro</i>	<i>Beta</i>	<i>T</i>	<i>Sig</i>
1 Constant	5.43	0.41		16.46	0.00
Entrepreneurship Education	1.36	0.14	0.41	9.46	0.00

Table 13 shows that teaching methods significantly influence polytechnic students' entrepreneurship motivation ($B = 0.41$; $t(459) = 2.63$, $P = 0.00$). It indicates that at 5% level of significance, there is evidence from the regression equation that entrepreneurship education has significant influence on entrepreneurship motivation. Based on this, the null hypothesis was rejected and it was concluded that entrepreneurship education has significant influence on polytechnic students' entrepreneurship talent.

5.0 Discussion of findings

The outcomes on research question 1 show the influence of entrepreneurship education on polytechnic graduating students' entrepreneurial talent. The respondents described that entrepreneurship education has very great influence on the acquisition of the items. The grand mean indicates that the respondents are highly motivated to exploit and commercialize their skills and talents, to achieve financial autonomy and become masters of their own lives. Among the major motivations of entrepreneurs and it is intriguing that entrepreneurship education is already moving students in the direction. The result of the test of the first hypothesis shows that entrepreneurship education has significant influence on entrepreneurship talent of polytechnic students, which justifies the human and material resources invested in the programme.

The outcome of research question 2 demonstrates that entrepreneurship education has been effective in promoting entrepreneurship talent. Self-efficacy is a major milestone on the road to entrepreneurial engagement and an important predictor of entrepreneurial behavior. This therefore implies that the graduating students' talent has been strengthened by the education they are receiving. The accuracy of this finding is validated by the result of the test of hypothesis.

Result on the third research question reveals that entrepreneurship are undecided on entrepreneurship education's influence on whether to be talent right away', but it has great influence on "readiness to be self-employed if I can't find a job". Entrepreneurship Education has also exploded the desire to 'become self-employed sometime in future,' and 'to become an entrepreneur immediately if I can garner adequate resources.' Almost all respondents indicated a preference for combining entrepreneurship engagement with paid employment. The test of the third hypothesis also confirms that entrepreneurship education has statistically strong influence on entrepreneurship talent. The major significance of these results is not that entrepreneurship education is achieving optimal results or that all the necessary human and material facilities abound in the studied institutions.

Therefore, entrepreneurship programmes are still work in progress. The significance lies in the enthusiastic response of the students to the Entrepreneurship Education initiative. It appears that the economic outlook has become so negative, the unemployment menace so dire that youths are willing to try new things, hence the overwhelming positive response to entrepreneurship education.

Graduates may not be effectively judging the adequacy of curriculum or the availability of relevant facilities and equipment, but the study shows that even at this early stage, entrepreneurship education, warts and all, is changing the mindset of Nigerian youths. A society which historically regarded paid employment as the ultimate possibility of a fresh graduate is importantly, learning to look in a creative new direction, “Change the mindset of youths, and a society will move mountain. Eagerness alone cannot move entrepreneurship mounts, but if knowledge and interest are complemented with adequate entrepreneurship support structures and practical experience.

5.1 Conclusion

The study demonstrated that entrepreneurship education has been very well acknowledged by Nigerian students. Majority the respondents disclose that they are looking forward to becoming self-employed sometime in future. Many are anxious to run their own businesses alongside paid employment. Many would not mind going into entrepreneurial ventures immediately if they can garner adequate resources of that purpose. If free enterprise is now the wave of the future, then Nigerian graduates, with entrepreneurship education, are thankfully now being ready to involve in that future as confident and equal partakers in the business of wealth creation. This is a promising development and it should be maintained.

5.2 Recommendations

Following recommendations were proffered:

- ❖ Entrepreneurship education should continue to be actively supported by Governments, institutions and other stakeholders. They should ensure that entrepreneurship education units and directorates have adequate human resources to impart entrepreneurship knowledge, skills and to motivate the students. Entrepreneurship trainers should build active liaison with practicing entrepreneurs, who can promote entrepreneurship knowledge and motivation.
- ❖ Entrepreneurship curriculums must continue to promote talent of students. This can be done by encouraging students to engage in micro businesses even while in school. It is often said that the best way to learn to swim is by swimming. Entrepreneurial talent can also be promoted by encouraging interactions with successful entrepreneurs, reading their history and encouraging practical engagement in entrepreneurship.
- ❖ Improved structures should be provided to support and encourage student’s entrepreneurship. Sufficient provision should be made for financial and technical support so that initial enthusiasm will not grow cold. The best way to build and reinforce positive entrepreneurship intention and ultimate engagement is to put in place functional support structures. If society continues to give entrepreneurship development the attention it deserves, it will, in no distant future, become our way of life.

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