

Assessing Entrepreneurship Education Pedagogies in Three Federal Colleges of Education in Nigeria's South-South Geo-Political Zone

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Abstract

The study examines teaching and assessment methods used by vocational technical education teachers in teaching and assessing entrepreneurship education learning outcomes in Colleges of Education in the South-South Geo-political Zone of Nigeria. The study used survey research design. A census of entrepreneurship teachers conducted in the three Federal Colleges of Education in the South-South Geo-political zone yielded a population of 30 teachers. Structured questionnaire was the research instrument. Data were analyzed using SPSS. The findings show that teachers routinely use ineffective traditional teaching and assessment methods in entrepreneurship education instruction. Pedagogies that maximize entrepreneurial learning outcomes for achieving the self-employment objective of entrepreneurship education in Colleges of Education were recommended.

Keywords: Pedagogies, Entrepreneurship Education, Teaching Method, Assessment Method, Self employment, Competencies, Colleges of Education

Introduction

Youth unemployment and poverty are major social problems in Nigeria. With a population of 173.6 million (World Bank, 2014), Nigeria is home to 7% of the world's poor. Nigeria, according to the World Bank president ranked third (after India and China) among the top five countries with the largest number of the poor. The official poverty lines (% of population) were 48.4% in 2004,

46.0% in 2010 and 33.1% in 2014 (World Bank, 2014). Even with an impressive Gross Domestic Product Annual Growth Rate average of 6.1% - 8.6% between 2004 – 2014 (Trading Economics, 2014), the national unemployment rate as at 2014 was 23.9% (National Bureau of Statistics, NBS, 2014) with the youth mostly affected. According to the Central Bank of Nigeria, CBN (2014), 70% of the 80 million youth in Nigeria are either unemployed or underemployed. The unemployment rate among Nigeria Certificate in Education (NCE) graduates was 22.2% as at 2010 (NBS, 2011).

The federal government of Nigeria recognizes that unemployment and poverty among the youth constitute a menace to the society. Governments, past and present have mapped several social, economic and educational strategies to tackle the problems. The recent educational initiative is the National Economic Empowerment and Development Strategies (NEEDS) 2004 plan. As part of strategies to create wealth, generate employment and reduce poverty, the policy recommended providing courses in colleges that build entrepreneurial skills (National Planning Commission, NPC, 2004). Hitherto, higher education curricula in Nigeria lacked contents to deliberately develop values, attitude and skills that enable graduates to nurture their entrepreneurial abilities to realize entrepreneurship opportunities around them.

Entrepreneurship knowledge and skills make vital contributions to economic growth. Entrepreneurship education is an inevitable strategy for inculcating entrepreneurial culture and orientation in a nation; creating employment; raising individual incomes; and transforming communities to enhance national economic development (Mkala and Wanjau, 2013). To Pfeifer, Oberman-Petrekka and Jeger (2014), entrepreneurship is a vital part of every society's prosperity and a driving force behind more employment, more growth and more competitiveness. Nations that have embraced entrepreneurship have achieved impressive results in addressing the problems of unemployment and poverty (Alakbarov, 2010). The increasing importance of entrepreneurship education and its ability to contribute to economic growth, job and wealth creation and poverty reduction made it a national policy issue in Nigeria, and inspired its integration in higher education curricula generally and colleges of education (COEs) in particular.

Entrepreneurship education studies were first introduced in National Certificate of Education (NCE) vocational/technical education (VTE) curricula in 2002 by the National Commission for Colleges of Education (NCCE). The contents were taught in two compulsory courses: VTE 220- Entrepreneurship in VTE I and VTE 310- Entrepreneurship in VTE II. In the

2012 edition of the minimum standards the NCCE made entrepreneurship education a compulsory course for all NCE students in Colleges of Education (COEs) in the course- General Studies Education (GSE) 324- Introduction to Entrepreneurship. Thus, beyond teaching subject matter related contents and foundation courses, students in COEs are taught sets of abilities and meta-abilities needed for enterprise development and management (Ukoha, 2012). The abilities are diverse but unique body of knowledge, skills, attitudes and behaviour possessed by successful entrepreneurs. Experts (e.g. Gibb, 2006a and Henry, Hill and Leitch, 2005) indicate that entrepreneurship is teachable, since it is perceived as behaviours patterns which among other factors can be influenced by education.

Jones and English (2004) in Pfeifer, Oberman-Petrek and Jeger (2014) defined entrepreneurship education as the process of providing individuals with the ability to recognize commercial opportunities and the knowledge, skills and attitudes to act on them. Entrepreneurship education is a complex process. It relates to contents, methods and activities supporting the creation and development of knowledge, competencies and experiences that make it desirable and feasible for students to initiate and participate in entrepreneurial value creating process (Moberg, et al, 2014).

Two major areas of entrepreneurship education have been recognized; education about entrepreneurship and education for entrepreneurship (Lukkannen 2000 in Olomi and Sabokwigina, 2010). Education about entrepreneurship deals mostly with awareness creation. The aim is to transfer knowledge about the field of entrepreneurship by educating students on the various aspects of entrepreneurship from a theoretical perspective. Education for entrepreneurship deals more with the preparation of aspiring entrepreneurs for career in self-employment. The objective is to develop in students entrepreneurial competencies, skills, attitudes and values to encourage students to set-up and run their own businesses. Students are taught the practical skills required to set-up and manage small businesses.

Contents of GSE 224, VTE 220 and VTE 310 adequately cover the two areas of entrepreneurship education (Ukoha, 2010). The contents among other themes cover the four phases (opportunity study or conception of business idea; feasibility study; business/enterprise planning and implementation of business plan) of enterprise development, management and growth. By this curriculum structure, entrepreneurship education in COEs presents a formidable array of

entrepreneurial competencies-attitudes, skills, knowledge, experiences and ways of behaving that need to be taught (Anderson and Jack, 2008).

Thus, if efficiently implemented, the curriculum is expected according to the policy initiatives to develop in students the transferable entrepreneurial awareness, knowledge, skills, attitudes and values of entrepreneurs they need to seek investment opportunities, establish and managed a business venture successfully. Niam, Baker and Islam (2014) and Moberg, Stenberg and Vestergaard confirmed this assertion by noting that the outcome of entrepreneurship education depends on how effectively the course is taught using appropriate teaching and assessment methods. Nonetheless, Johnson, Justin and Hilderbrand (2006) noted that pedagogically, entrepreneurship is still a “connundrum” to teachers as the conventional pedagogies they apply may not fit well with nor be able to fulfil the different entrepreneurial promises of skills, abilities, attitude and knowledge contained in the curriculum.

Statement of the Problem

What justifies the worth of entrepreneurship education programme is the outcome. Entrepreneurship in COEs aims at preparing students for careers in self-employment as a more viable alternative to paid employment amidst rising youth unemployment. In self-employment, students are to create wealth and generate income to sustain living above poverty line. Literature search reveals no study on impact assessment of entrepreneurship education on COE graduates. What seems evident after 12 years of teaching entrepreneurship education in COEs is increasing unemployment among NCE graduates (12.6% in 2002, 22.2% in 2010 and 24.9% in 2013, NBS, 2014) and debilitating poverty compelling graduates to take up menial jobs notably commercial cyclist business.

The increasing unemployment and underemployment among NCE graduates point to a gap between the entrepreneurship education programme and the intended outcomes. Mwasalwiba (2012) asserted that lack of coherent proof of the impact of entrepreneurship education triggers doubts about its efficacy. Granted that several interrelated factors could account for the apparent inability of entrepreneurship education to produce the intended outcomes, Mkala (2013) specifically reported that teaching and assessing methods affect learning outcomes of entrepreneurship education. By implication, the prevailing unemployment among NCE graduates despite the teaching of entrepreneurship education could be attributed to teachers’ use of teaching

and assessment methods which do not promote students' acquisition and use of entrepreneurial competencies for self employment. Identifying the most effective methods of teaching and assessing learners in entrepreneurship education instruction which promote acquisition of entrepreneurial competencies are keys to a successful entrepreneurship education (Kitz, 1991 in Esmi, Marzoughi and Torkzadeh, 2015).

Thus, the purpose of this study, focusing on Federal Colleges of Education in the South-South geo-political zone of Nigeria, was to assess:

- 1 the teaching methods used by entrepreneurship teachers in teaching entrepreneurship education courses; and
- 2 the assessment techniques used by entrepreneurship education teachers in assessing students' learning outcomes in entrepreneurship education courses.

Research Questions

In respect of the two specific objectives, this study answered two questions:

- 1 What are the teaching methods used by entrepreneurship education teachers in teaching entrepreneurship education courses?
- 2 What are the assessment techniques used by entrepreneurship education teachers in assessing students' learning outcomes in entrepreneurship courses?

Hypotheses

Four null-hypotheses were formulated and tested in the study at $P < 0.05$. The mean scores of teachers on the teaching methods they use in entrepreneurship education instructions will not differ significantly by:

1. Gender
2. Institution
3. teachers' department
4. teachers' educational qualifications

Review of Literature

Industry Canada (2011) identified a framework for delivering entrepreneurship in colleges. The framework includes institutional infrastructure, resources, outreach or link with stakeholders, and

teaching and learning. The teaching and learning dimensions focus on course curricula, extra-curricula activities administered through the institution's entrepreneurship framework, teaching methods and assessment techniques.

Teaching methods are used to convey entrepreneurship education knowledge skills and attitudes to learners. The method of teaching, according to Nian, Baker and Islam (2014), is an important factor in determining the effectiveness and outcome of entrepreneurship education programme. Studies (e.g. Fredrick, 2007 and Gatchalian, 2010) have established that entrepreneurs learn differently from others. Thus, entrepreneurs require active and concrete pedagogical intervention requiring deepening learning in theory, process, and practice of entrepreneurship. Based on this differentiation, Levie (1991) and Klandth (1993) in Olomi and Sabokwigina (2010) identified methods in courses for and about entrepreneurship. Courses for entrepreneurship, according to them use case studies, guest speakers, group projects, business plan writing, students' oral presentation, assessment of class participation and video. Others include practical work on computer simulation, role playing games, working with entrepreneurs and joining students' entrepreneurial clubs. Courses about entrepreneurship they noted tend to be taught using traditional lecture, textbooks and consulting services by students.

Smith and Patton (2011) reported that using traditional methods such as lecture and its variant "chalk and talk" to teach entrepreneurship education merely results in a knowledgeable person. The method they added lack initiative for application. While they are effective in teacher-learner knowledge transfer (Sherman, Sebor and Digman, 2008) they are static and unable to respond to the naturally dynamic business environment (Smith and Patton, 2011). On their part, Nian, Baker and Islam (2014) noted that while traditional teaching methods might be able to develop the critical characteristics of entrepreneurs and business strategies, they might not be able to develop in students creativity and autonomy. The traditional teaching methods sustain their utility only in entrepreneurial awareness.

However, mere awareness cannot develop entrepreneurial practice (Mkala and Wanjau, 2013). Developing entrepreneurial practice requires experiential methods capable of instilling transversal entrepreneurial skills. Green (2011) thus recommends that business education pedagogies feature hands-on experience, real world projects and learning by doing and engaging in real world venture creation using methods such as team projects, field work, case studies, business plan writing and games. Experience acquired through these methods are superior to

knowledge acquired through course work (Schon, 1999) and studying books on management (Igbo, 2008) as they take into consideration reality of practice.

Despite the criticisms of traditional methods over practical or experiential methods, the literature shows that a variant of both methods is widely used in colleges and universities across the world. Traditional methods even seem to be most favoured by teachers. Teachers in Canadian institutions use a combination of traditional and experiential methods such as lectures, project teams and simulation (Industry Canada, 2011). In American universities, Solomon (2007) reported that development of business plans, class discussion, and guest speakers are popular. The study also shows that even as traditional methods like creation of business plan still remains popular, institutions are shifting toward knowledge sharing pedagogical methods like class discussion and guest speakers. Nian, Bakar and Islam (2014), in a recent study in Malaysia, found that lecture, case study, and practicals are the common methods used in Malaysia University to deliver entrepreneurship knowledge and skills. Other methods as guest speakers, interviewing entrepreneurs, business simulation, role play, and multimedia exercises were used, but to a lesser extent. The researchers concluded that though teachers use interactive teaching methods in entrepreneurship education, yet their regularity remains low.

There seem to be no difference in the entrepreneurship education teaching methods used in institutions in United States, Canada, Malaysia and those used in African countries. In Tanzanian business schools, for instance, Olomi and Sabokwigina (2010) identified the predominant methods by teachers' preferences as lecture, individual projects, group project, real case studies, guest speakers (entrepreneurs and bankers), interviewing entrepreneurs, reading books and journals, and business simulation. These methods showed that the teachers predominantly adhere to the use of traditional in-class methods. Out-side class methods (e.g. on-site visits, feasibility studies, business plans) are rarely used, though they have potentials to teach both knowledge and skills. In a study in Nigeria, Obikeze and Onyechi (2010) discovered that teachers in Anambra State tertiary institutions regularly use lecture, studying books in business management, games and stimulation. Other methods include career talk, excursion, film shows, debates, discussion, formation of business clubs and pep-talk. The NCCE (2012) recommended the use of lecture and practical methods in teaching entrepreneurship education in COEs.

Traditional methods (e.g. lecture) of teaching entrepreneurship education are inappropriate. They merely amount to "feeding passive students" (European Commission, 2008) and do not

encourage students to learn through experience (Cooper, et al, 2004 in Olomi and Sabokwigina, 2010). Besides, the methods leave little room for insight and intuition that students necessarily need for the dynamic entrepreneurial environment (Olomi and Sabokwigina, 2010). Since most teachers would readily use traditional methods, Kirby (2002) suggested balancing conventional methods with more advanced techniques to enable entrepreneurs develop vertical (or critical) and lateral (creative) thinking in problem solving. The European Union (2008) gave credence to Kirby's suggestion, by recommending methods based on "group and team" techniques for creating business ideas: use of case studies, business planning workshops, inviting guest speakers (entrepreneurs), business simulation and methods based on undertaking some practical entrepreneurial activity and creativity. The methods ensure better entrepreneurship education learning outcomes.

Assessing entrepreneurship education learning outcomes is a big challenge to educators. Entrepreneurship educators are often at loss with regards to evaluation and assessment practices to measure learning outcomes of their students (Moberg, et al, 2014). The typology of entrepreneurship education indicates that assessment of entrepreneurial outcomes demonstrate not only knowledge, but also entrepreneurial mindset, attitudes and perceived skills acquired by students (Moberg, et al., 2014) and the transversal entrepreneurial competencies that operationalize entrepreneurship in the economy (Edward and Pittaway, 2012). These concepts are complicated to observe directly which make them difficult to measure (Moberg, et al., 2014).

Sherman, Seborá and Digman (2008) and Pittaway, Rodríguez-Falcon and Aiyegbayo (2009) note that there are critical concerns about the use of conventional methods such as written tests and examination to measure entrepreneurial skills and attitudes. These methods, they argue, do not bring out outcomes educators expect. Despite the concerns, current entrepreneurship education assessment practices remain fairly traditional in European Union (EU) countries (Moberg, et al., 2014). The trend is the same in some African and Asian countries.

In Kenya, Mkala and Wanjau (2013) found that teachers in Technical Training Institutes routinely use the relatively ineffective traditional methods of written test and examination. The most commonly used assessment methods in order of preference in Tanzanian business schools are course examination, class participation assessment, preparation of business plan, students' oral presentation and essay (Olomi and Sabokwigina, 2010). Similarly, Nian, Baker and Islam (2014) discovered that teachers at Universiti Malaysia Perlis in order of rank frequently use written

examination, group project, writing business plan, individual project, oral presentation and essay in assessing entrepreneurship education learning outcomes.

Assessment methods predict the methodologies selected to deliver entrepreneurship education contents (Tranchet and Reinstra, 2009). Evidence from different countries seem to confirm a balance between traditional teaching and assessment methods. Much as entrepreneurship education teachers make their choices of methods, the choices however depend on diverse factors. Some of the factors include infrastructures available, support services, type of institution and teachers' experience (Industry, Canada, 2011). Gender according to Obikeze and Onyechi (2010) does not affect teachers' choice of entrepreneurship education teaching method. On types of institution and entrepreneurship education teachers' choice of teaching methods, Nwokike, (2017) found no significant difference in mean scores of business educators teaching in Federal, State and private Universities on teaching methods that could improve entrepreneurial competencies of business education students.

Methodology

This study used a survey research design. A census of all the teachers of entrepreneurship education in the three Federal Colleges of Education (FCE) at Obudu, Cross River State; Omoku Rivers State and Asaba, Delta was conducted during the first semester of the 2014//2015 session to determine the population of the study. This yielded a population of 30 teachers; distributed as follows: FCE (Technical), Omoku 11; FCE (T), Asaba 9 and FCE, Obudu 10. The entire population participated in the study. The FCOEs were chosen for investigation because their programmes are fully accredited by the NCCE, funded and supervised by the Federal Ministry of Education.

The instrument was a structured self-administered questionnaire, which was refined after a pilot study. The Cronbach's alpha reliability index was 0.72. The value was deemed acceptable in comparison with the 0.70 recommended minimum by Santos (1999). The items (different methods of teaching and assessing entrepreneurship education) were generated through literature review. The instrument consisted of three sections, A, B and C. Section A sought preliminary information on the teachers' gender, educational qualifications, institution and department. Section B consisted of 18 items (teaching methods). Section C comprised 9 items (assessment techniques). The respondents were required to rate the regularity of teaching and assessment methods they use

in entrepreneurship education instruction based on their judgment on a scale of Frequently, Often, Rarely and Never. Thirty copies of the questionnaire were administered. The researcher personally administered copies of the questionnaire at FCE, Obudu. Copies administered at FCE (T), Asaba and FCE (T), Omoku were mailed by post to colleagues (lecturers) in the colleges who administered them and returned completed copies by post. Twenty-six copies (86.66%) were collected and used for analysis.

Descriptive statistics (mean and standard deviation) and inferential statistical (t-test of independent samples and one-way analysis of variance) were used to analyze the collected data. The analysis was done using SPSS package. Research questions 1 and 2 were answered using mean, standard deviation and rank. Calculated means were interpreted as Never (1.00-1.49), Rarely (1.49-2.49), Often (2.50-3.49) and Frequently (3.50-4.00). The means were further ranked to identify the most preferred methods. Null-hypotheses 1 and 4 were tested using t-test; while 2 and 3 were tested using one-way analysis of variance (ANOVA). All the hypotheses were tested at 0.05 level of significant.

Results

Results of the data analyzed are presented in Tables 1-6.

Table 1: Mean and Standard Deviation Responses of Teachers on the Methods Used in Teaching Entrepreneurship Education Courses

S/N	Methods of Teaching	SD	Mean	Rank	Remark
1	Lecture	.52	3.76	1	Frequently
2	Class discussion	.69	3.04	3	Often
3	Field trip (On-site visit or Excursion)	.83	1.39	4	Never
4	Individual projects	.88	1.39	4	Never
5	Group projects	.63	1.32	6	Never
6	Case studies	.62	1.39	9	Never
7	Writing business plan	0	1.00	11	Never
8	Feasibility studies	0	1.00	11	Never
9	Guest speakers (entrepreneurs)	.81	1.24	10	Never
10	Interviewing entrepreneurs	0	1.00	11	Never

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11	Business simulation	0	1.00	11	Never
12	Role play	.60	1.45	7	Never
13	Studying books on management	.51	3.41	2	Often
14	Film shows	0	1.00	11	Never
15	Business planning workshops/seminar	.72	1.44	8	Never
16	Multimedia exercises	0	1.00	11	Never
17	Business clubs	0	1.00	11	Never
18	Games	0	1.00	11	Never

Data in Table 1 show that entrepreneurship education teachers frequently used lecture method and often use class discussion and studying books on management in teaching entrepreneurship education courses. Lecture method was the most preferred method.

Table 2: Mean and Standard deviation responses of Teachers on the Assessment Techniques Used in Assessing Entrepreneurship Education Learning Outcomes

S/N	Assessment Techniques	SD	Mean	Rank	Remark
1	Written examination	.48	3.86	1	Frequently
2	Written test	.54	3.75	2	Frequently
3	Class participation	0	1.00	6	Never
4	Preparation of business plan	0	1.00	6	Never
5	Oral presentation	0	1.00	6	Never
6	Individual project	.60	1.45	4	Never
7	Group project	.66	1.38	3	Never
8	Practicals	.60	1.35	5	Never

Teachers frequently used written test and examination in assessing entrepreneurship education students' learning outcomes.

Table 3: t-test Analysis of Gender Differences in the Teaching Methods Used by Entrepreneurship Education Teachers

Gender	Mean	SD	N	Df	t-cal	t-table
Male	2.20	1.30	5	24	.72	1.71
Female	1.76	.89	21			

The teaching methods used by entrepreneurship education teachers did not significantly differ by gender since the calculated t-value of 0.72 is less than the table t-value of 1.71 at 0.05 level of significance.

Table 4: ANOVA of Differences in the Methods of Teaching Used by Entrepreneurship Education Teachers by Institution

Sources of Variation	df	Sum of Squares	Mean squares	F-cal	F-crit	S	Decision
Between Groups	2	17.938	8.969	.249	3.00	NS	Accept HO ₂
Within Groups	48	1729.116	38.023				
Total	50	1747.054					

The Table F-ratio value of 3.00 is greater than the calculated F-ratio value of .249. Null-hypothesis of no significant difference is accepted at 0.05 level of significance. This means that entrepreneurship education teachers' choice of teaching methods were not influenced by their institutions of affiliation.

Table 5: ANOVA of Differences in the Methods of Teaching Used by Entrepreneurship Education Teachers by Department

Sources of Variation	df	Sum of Squares	Mean squares	F-cal	F-crit	S	Decision
Between Groups	4	46.661	11.665	.851	3.32	NS	Accept HO ₃
Within Groups	80	1095.402	13.692				
Total	84	1142.063					

The calculated F-ratio value of .851 is less than the Table F-ratio value of 3.42. Null-hypothesis 3 is accepted at 0.05 level of significance. This implies that the teachers' choice of teaching methods were not influenced by their departments of affiliation.

Table 6: t-test Analysis of Differences in the Methods of Teaching Used by Entrepreneurship Education Teachers by Educational Qualifications

Educational Qualification	Mean	SD	N	Df	t-cal	t-table
Bachelors Degree/HND	2.00	1.26	6	22	.318	1.71
Higher Degree	1.82	0.95	17			

The calculated t-value of .318 is less than the critical t-value of 1.71. Null-hypothesis 4 is accepted at 0.05 level of significance. The methods of teaching used by entrepreneurship education teachers did not differ by educational qualification.

Findings

1. Entrepreneurship education teachers in FCOEs frequently use the traditional lecture method in teaching entrepreneurship education courses.
2. The teachers often use class discussion and studying books on management in delivering entrepreneurship education contents.
3. The teachers do not use practical/experiential methods such as case studies, games, field trips (on-site visits), project methods etc in teaching entrepreneurship education.
4. The traditional written examination and test are the dominant assessment methods frequently used by entrepreneurship education teachers in assessing learning outcomes.
5. Individual and group projects are often used by the teachers in assessing entrepreneurship education learning outcomes.
6. The teaching methods used by the teachers in teaching entrepreneurship education in FCOEs did not show statistically significant differences by teachers' gender, institution, department and educational qualifications.

Discussion of Findings

Increasing unemployment and poverty among NCE graduates necessitated the introduction of entrepreneurship education in COEs curricula. The objective is to equip students with entrepreneurial competencies, attitudes and behaviours they necessarily need for new venture and wealth creation in self-managed enterprises as an imperative for poverty reduction. Achieving the programme objective require teachers' use of active and concrete teaching and assessment methods capable of delivering and precisely assessing entrepreneurial knowledge, skills, attitudes and behaviours acquired by students.

On teaching methods, data in Table 1 shows that the traditional lecture, class discussion and studying books on management were the common methods used by teachers in their instruction. Table 1 also reveals that the teachers never used the interactive practical/experiential methods such as case studies, games, field trips, project teams, business planning workshops, inviting guest speakers and business simulation even though these methods have the potential to

teach practice, important skills and exposure to necessary behaviour critical to entrepreneurial development. On the frequency of use scale, the teachers indicated they frequently used lecture method compared to discussion and studying books on management which they often use.

Entrepreneurship education teachers' frequent use of lecture method and non-use of practical/experiential methods partly agrees with, and partly negates NCCE (2002 and 2009) recommendation for entrepreneurship education teachers to use practical and lecture methods in teaching the courses. Aside NCCE recommendation, teachers use of lecture and discussion methods could be because both are classroom-based and can easily be used by both experienced and less-experienced teachers. If interspersed with questions, lecture method like discussion method, enlists learners' active participation in instruction.

The finding on teachers' use of traditional teaching methods is in agreement with the findings of Solomon (2007) in the USA; Industry Canada (2011) in Canada; Obikeze and Onyechi (2010) in Anambra State University; Olomi and Sabokwigina in Tanzania, and Nian, Baker and Islam (2014) in Malaysia. As widespread as the use of the conventional methods are, they have been variously criticized as being inappropriate. The methods are only suitable in teaching entrepreneurial awareness (Nian, Baker and Islam, 2014) and knowledge transfer (Sherman, Sebora and Digman, 2008). Other shortcomings of the traditional methods include their inability to encourage students to learn through experience (Cooper et al, 2004 in Olomi and Sabokwigina, 2010), develop entrepreneurial practice (Mkala and Wanjau, 2013); develop creative and autonomy (Nian, Baker and Islam, 2014) and exploit their problem-solving potentials (Pittaway, 2002 and Green, 2011). These reports implied that entrepreneurship teachers as revealed in Table 1 are merely teaching entrepreneurship awareness and knowledge to the students while neglecting practice. This is not acceptable. Mere knowledge of entrepreneurship is grossly inadequate for students to set-up and successfully manage a small-scale business to generate income as part of the employment generation objective of entrepreneurship education.

If the self employment objective of entrepreneurship education in COEs must be achieved, the students need a balance of entrepreneurship education theory, practice, attitudes and behaviours. Thus, teachers need to balance traditional in-class methods with the experiential/practical methods (example, case studies, field trips and project methods) in Table 1 which they never used. The neglected practical/experiential methods encourage students to learn through experience (EU, 2008 and Sherman, 2011) as they come face-to-face with realities of

entrepreneurship which are not possible with the in-class lecture and discussion methods. In addition, the methods inculcate in students the entrepreneurial skills, attitudes, behaviours, lateral and vertical thinking in problem solving (Levie, 1999 in Olomi & Sabokwigina, 2010) which they need to succeed as entrepreneurs.

The teachers' use of lecture and discussion methods in Table 1 was confirmed by the data in Table 2. The data showed that the teachers predominantly used written test and examination to assess learning outcomes. The two techniques are basically used to assess learning outcomes related to awareness of information, knowledge of facts, concepts, theories and principles in Bloom's hierarchy of educational objectives in the cognitive domain. Thus, the teachers' use of lecture and discussion methods were not in error. It was an informed choice. The teachers knew they taught entrepreneurial awareness and knowledge to the students and selected the appropriate assessment tools to measure them.

Teachers' use of traditional written test and examination in Table 2 is not isolated. It is consistent with the findings of Nian, Baker and Islam (2014) in Malaysia, Mkala and Wanjau (2013) in Kenya; Olomi and Sabokwigina (2010) in Tanzania and Moberg et al (2014) in EU countries. Data in Table 1 and Table 2 further confirmed the noted balance between traditional teaching and assessment methods reported by Tranchet and Reinstra (2009).

The tests of the four null hypotheses in tables 3, 4, 5 and 6 showed that the mean scores of the teachers on the teaching methods they used in teaching entrepreneurship education did not differ significantly by teachers' gender, institution, department and educational qualifications. These findings showed complete agreement among the teachers on their choice of methods in entrepreneurship education instruction. Findings on null hypotheses 2 and 3 in tables 3 and 4 were in agreement with Obikeze and Onyechi (2010) and Nwokike (2017) who found no significant differences between university teachers' gender and institution, and teachers' choice of teaching methods.

Conclusion

Inappropriate and ineffective teaching and assessment methods are used in the Nigerian colleges researched to teach and assess entrepreneurship education. The curricula no doubt provides contents in education for entrepreneurship and education about entrepreneurship which demand the use of traditional in-class and interactive practical/experiential teaching methods. Nonetheless,

based on variables independent of gender, department, institution and educational qualifications, the teachers neglected the experiential methods adjudged more effective, and predominantly used the traditional methods of discussion and studying books on management used mainly in delivering theoretical entrepreneurial knowledge. The entrepreneurship education teachers' adherence to traditional teaching methods was confirmed by their use of conventional written test and examination in assessing learning outcomes.

The observed balance between teachers' choice of teaching and assessment techniques established two possibilities. Either the teachers taught and assessed entrepreneurial knowledge, skills, attitudes and behaviours with the traditional teaching and assessment techniques or they concentrated on theoretical entrepreneurial knowledge for the traditional teaching and assessment methods to suffice. The second possibility seems more plausible. Theoretical knowledge of entrepreneurship alone is not enough to drive the enterprise spirit in students to establish their own businesses to achieve the poverty alleviation/reduction objective of entrepreneurship education. Students need balanced knowledge of entrepreneurship, skills, attitudes and behaviour characteristics of enterprising individuals to be able to venture into self-employment.

Recommendations

The findings from this research show that teachers of entrepreneurship education in these Nigerian COEs do not use the appropriate pedagogical approach that the subject deserves; they seemed resigned to using ineffective traditional pedagogies.

Thus, the results of this study call the attention of entrepreneurship education teachers in COEs to employ effective strategies for developing in students the key entrepreneurial competencies they need in self employment as entrepreneurs. Teachers should abandon their over reliance on traditional teaching and assessment methods, and embrace experiential, interactive and practical oriented methods which teach and measure entrepreneurial knowledge, skills, attitudes, connectedness to labour market and mind set. It is through the use of appropriate pedagogies that NCE students will develop practical business experiences and ideas for setting up and managing small business ventures in line with the self employment initiatives of entrepreneurship education in COEs.

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