

Entrepreneurship Training and Capacity Building of Ghanaian Polytechnic Graduates

Edem M. Azila-Gbettor

Lecturer, Ho Polytechnic, Ghana.

Tel:00223208502245, Email: mymaxz@yahoo.com

Adjimah Paul Harrison

Lecturer, Ho Polytechnic, Ghana.

Tel: 00233 24 8772148; Email: jonadj2@yahoo.com

ABSTRACT: This paper examines the suitability of the content and pedagogy of Ghanaian polytechnic syllabus in developing able and confident entrepreneur's mindset of polytechnic graduates. Based on a survey of 750 final year students, the paper explores curriculum coverage of entrepreneurship syllabus, teaching and learning methods and emphasis and respondents capacity to start a business. The results indicated weaker link between the entrepreneurship development course of the polytechnic and preparedness of graduates to create businesses, at least from the student perspective which may be largely due to the teaching and learning methods.

Keywords: Entrepreneur(ship); Education;Curriculum; Pedagogy; Content; Syllabus

JEL Classifications: I12; L26

1. Introduction

The positive relationship between entrepreneurship education and business creation has been well acknowledged in international literature (Lüthje and Frank, 2002; Charney and Libecap, 2000). Increasing emphasis is now being placed on entrepreneurship for promoting economic growth (Bygrave and Zacharakis, 2007) and globally there is a growing recognition of entrepreneurship as a driving force to economic development and job creation.

According to scholars and researchers, there is a good possibility to increase entrepreneurship ability through education (Gorman et al., 1997; Ronstadt, 1987) and European Commission (2004) regards education as an important means to create a more entrepreneurial mindset among young people. It is therefore not a surprise that there is proliferation of entrepreneurship courses and programmes in higher institutions around the world (Bygrave and Zacharakis, 2007).

Indeed interest in the field of entrepreneurship has significantly increased among academics, business leaders, entrepreneurs, and government officials throughout the world in the past decade. The increased interest is reflected in: the increased number of courses at colleges and universities; the increased number of journals in the field; the increased coverage of the field by the media; and the increased interest by governments and the increased level of government supports (Hisrich and Peters, 2002).

Compared to developed countries, entrepreneurship education is scarce and sometimes non-existing, in most developing countries (Dubini and Iacobucci, 2004). In sub-Saharan Africa, for example, the colonial educational administrative systems or structures which continue to exist have not made conscious efforts to create higher institutions for technical and vocational education which are the foundation for small businesses.

Until recently, just about a decade ago, entrepreneurship as course was not taught, at all, in most tertiary institutions in Ghana (Adjimah, 2011) although, there are now a lot of activities that point out to an increased interest and recognition in entrepreneurship education.

In spite of the significant increase interest in entrepreneurship, there are still considerable doubts even in the developed world about whether entrepreneurs are born or can be made (Faris, 1999), raising the debate as to whether academic institutions can actually teach individuals to become entrepreneurs. Authors such as Shepherd and Douglas (1996) held the view that entrepreneurial

process involves both art and science and the science part could be taught using a conventional pedagogical approach. They pointed out the art part, which relates to generative, creative and innovative attributes, does not seem to be teachable in the same way.

Another key issue in entrepreneurship education is curriculum design: thus appropriateness of curricula and training programmes. The rationale for developing and refining the curriculum is based on empirical evidence that not only has the curricula concentrated on preparing the students towards the “take-a-job” option instead of the “make-a-job” option (Kourilsky and Walstad, 2000). Fleming (1999) adds that the main challenge is concerned with “production of graduates who are capable of being innovative and who can recognize and have the capacity to create opportunities, take risks, make decisions, analyze and solve problems, and communicate clearly and effectively”.

An elaborate research on effectiveness of entrepreneurship training has been provided by (Colette et al., 2005). They affirmed that at least some aspects of entrepreneurship can successfully be taught in entrepreneurship academies and colleges but established that there are some difficulties associated with the design of programs, as well as their objectives, content and delivery methods.

Almost all the tertiary institutions in Ghana now offer at least one course of entrepreneurship or small enterprise management at undergraduate levels, and few actually have minor and major concentration in the area (Adjimah, 2011). However, the strong entrepreneurial spirits among fresh graduates and robust emergence of “out of school entrepreneurs” that we expect to see in Ghana, is yet to be observed.

Entrepreneurship academies are in non-existence in Ghana and the polytechnics are, arguably, the most practically oriented higher institution of learning in the country that can effectively combined technical and business management skills and training and turnout entrepreneurs. This paper therefore seek to analyze the objectives of entrepreneurship courses in the polytechnics, the critical role the content and nature of delivery prescribed in the syllabi can play in developing able and confident budding entrepreneurs; and the preparedness of the entrepreneurial mindset of polytechnic graduates.

2. Literature Review

Course Content of Entrepreneurship Education

"Entrepreneurship education" and "small business education" are two typical words used in entrepreneurship literature to describe entrepreneurship training programs. Entrepreneurship education, more associated with North America literature, refers either to training programs devoted to helping future entrepreneurs start up their business or to education programs preparing for a career in entrepreneurship (Vesper, 1982; Ronstadt, 1987). Small business education” more European, is often used to cover entrepreneurship education, education for small business ownership and self-employment, continuing small business education, and Small business awareness education. A more agreeable term "entrepreneurship development program" (EDP)-meaning any set of structured courses designed to inform, train, and educate those interested in participating in socio economic development through projects aimed at business awareness and creation or at the teacher training-- has been agreed on by three international authorities (Béchar and Toulouse, 1998). The organizations are the International Network of Management Development (INTERMAN), the United Nations Development Program (UNAP), and the International Labour Organization (ILO) in Geneva.

Béchar and Toulouse reviewed EDPs from angles of teaching content, teaching method, school and community networks and educative values. On teaching content, they identified that various kinds of information needed to start up and manage a small business are provided. Their research observed that course content is rather built more on the trainer's expertise than on the needs of learners, market opportunities, and the business project's stages of development. They also pointed that little is provided on intuition (know when); social skills (know whom); technical skills (know how); or attitudes, values, and motives (know why) which are required for success. Discussions on Entrepreneurship development mainly focus on various aspects of business and not so much about tendency towards entrepreneurial traits or characteristics.

Hemantkumar et al., (2010) also made a strong point that Enterprising Tendency is one of the most important parts of an Entrepreneurship but the entrepreneurial traits have been given by different researchers in different manner. Charntimath (2006) laid emphasis on creativity, innovation, dynamism, leadership, team building, achievement motivation, problem solving that successful entrepreneur must have. Harvard Business School (2005) highlights negotiating skills, technical skills, the ability to sell vision to others, ability to motivate people, passion and so on.

General measure of Enterprising Tendency Test-GET2 by Caird (1991) assumes that enterprise is a wider concept that includes more than business owner-managers and entrepreneurs, recognizing that there are different types of entrepreneurs, distinguished by their growth orientation, motivation, type of business, involvement with new technology, association with business owner management, and so on. The enterprising person may be an entrepreneur, or an intrapreneur, working within organizations, or the voluntrapreneur who sets up and leads voluntary projects in the community. An enterprising tendency is defined as the tendency to start up and manage projects.

The discussion surrounding the content of entrepreneurship curriculum concerning what, who and how to teach entrepreneurship is an ending. According to Edwards and Muir (2005) entrepreneurial curriculum develops differently across universities, either as an optional module within business courses or a specific course on entrepreneurship. Béchar and Toulouse (1998) also proposed that four possible view points are held by four categories of people: the educators viewpoints; the student-entrepreneurs; those who design the programmes and the evaluators when it comes to the development of entrepreneurship programmes in tertiary institutions.

Okudan and Rzasa (2006) suggest an effective entrepreneurship education should provide opportunities for students to practice a combination of all the entrepreneurial leadership components. According to Brown (2000) entrepreneurship education should be viewed in terms of the skills that can be taught and characteristics that can be engendered in students in order to help them develop new and innovative plans. In this respect Brown (2000) mentions that the curriculum has to focus on the features that needed to be conceiving of and start a new business. Vesper (2004) categorizes four kind of knowledge useful for entrepreneurs and hence the entrepreneurship course content should be developed according to this knowledge: i) business-general knowledge; ii) venture-general knowledge; iii) opportunity-specific knowledge; and iv). venture-specific knowledge. However Brown (2000) claim that opportunity specific knowledge and venture-specific knowledge are the most important for entrepreneurial success. Therefore, programmes in entrepreneurship should foster these last two categories of knowledge. Kourilsky (1995) also mentions three attributes that should constitute the core content of what she called entrepreneurship education: i) opportunity perception and evaluation; ii) organizing and pledge of resources to pursue the opportunity; and iii) creation and operating of business ventures to implement the opportunity motivated business idea. Kourilsky's three components of an effective entrepreneurship education were supported by Gormon, et al., (1997: 4). They pointed out that "the ability to detect and exploit business opportunities more quickly and the ability to plan in greater detail and project further in the future" distinguishes entrepreneurship programmes from traditional management programmes. This suggests that the content of courses in entrepreneurship for tertiary institutions has to address the abilities of identifying an opportunity, pursuing the opportunity and transforming it into a growth-oriented business.

Pedagogical Issues

The methodological issues surrounding training of budding entrepreneurs have been around for some times (Block and Stumpf, 1992; Young, 1997). Entrepreneurship education, according to Binks (1996) refers to the pedagogical process involved in the encouragement of entrepreneurial mindset, behaviours and activities. One major challenge of entrepreneurship in relation to education according to Garavan and O'Conneide (1994) is the appropriateness of teaching methods in developing student's entrepreneurial competencies and skills. The challenge for educators is to provide graduates with content focus, while ensuring that the breadth of the subject does not cause the depth to be eroded (Collins and Robertson, 2003). This is to be ensured by adopting multiple flexible delivery methods in the teaching. Brown (1999) indicates that the entrepreneurship course content should be informal with an emphasis more on hands-on teaching methods. Gibb (2006) argued that the traditional teaching methods such as lectures, literature reviews, using reading materials, discussions, tutorials, examinations and so on do not activate entrepreneurship as it ignores the essence of the entrepreneurial process and may inhibit the development of the requisite entrepreneurial skills and characteristics. Sexton and Upton (1988) had earlier on supported the view that entrepreneurship educators do not only advance the knowledge of the content but also examine approaches to improve the mechanics or delivery methods used to teach entrepreneurship.

Of course, different researchers recommend different methods in delivering capable entrepreneurial knowledge and skills to students ranging from conventional approach such as textbooks (Fiet, 2002), examinations (McMullan and Cahoon, 1979) to unconventional approaches

such as business plan (Audet, 2000), life histories of working entrepreneurs (McKenzie, 2004); guest lectures (Klandt and Volkmann, 2006) and field study or visit to business organizations (Cooper et al., 2004). Gorman et al., (1997) suggest that for effective teaching method, the educator needs to adopt the role of coach, mentor and challenger and have the ability to provide feedback in a constructive and relevant manner. The teaching process should focus on active learning, problem-based learning and discovery teaching.

Process of Entrepreneurial Learning

There is an ongoing debate among scholars on the definition and process of entrepreneurial learning. Rae (2006: 42) defined entrepreneurial learning as “a dynamic process of awareness, reflection, association and application that involves transforming experience and knowledge into functional learning outcomes”. Entrepreneurial learning occurs through experiencing different challenging events such as recognizing the opportunities, coping with problems, and performing different roles of an entrepreneur (Politis, 2005). Personal experience or experience in learning entrepreneurship is advocated by Henry et al., (2005) as a way to learn entrepreneurship. Smith et al., (2006) suggest it is through the experience that students acquire requisite knowledge and skills to be able to face the challenges and cope with the problems surrounding their enterprise. Experience according to Zhao et al.,(2005) develops students’ entrepreneurial belief and the desire to successfully perform the roles and tasks of an entrepreneur. McGrath and MacMillan (2000) assert that entrepreneurial mindset which enables and encourages individuals to find opportunities can be developed through experience rather than traditional methods of entrepreneurship education. Entrepreneurial internship is seen as a good mechanism to provide students with such learning experience in a real business milieu to developed entrepreneurial mindset (Dilts and Fowler, 1999). Internship according to Gault et al., (2000) is generally part-time field experiences and encompasses a wider variety of academic disciplines and organizational settings with its main goal to eventually lead students to become self-employed. Students’ placement and/or work experience programmes is very crucial for undergraduates as it exposes and prepares a student for the real working experience and as an external extracurricular learning activity (Neill and Mulholland,2003). The work of Gault et al., (2000) also indicated that, interns who have participated in the internship programmes tend to have higher career preparation about their jobs and higher level of intrinsic and extrinsic rewards satisfactions.

Other proponents advocates for social interaction learning in addition to experiential learning having a positive impact on the entrepreneurial qualities of students and crucial in the whole process of entrepreneurial learning (Man and Yu, 2007; Pittaway and Cope, 2007). According to Rae and Carswell (2000) social interactions learning shape and develop the entrepreneurial perceptions, attitude, and abilities of students. It also improves students’ affection on entrepreneurial activities as well as their perceived level of entrepreneurial competencies (Man and Yu, 2007) and facilitates their access to groups of entrepreneurial minded colleagues (Zhao et al., 2005). Through social interactions students’ self-awareness of their weaknesses and strengths improves and they become mature in networking and communication skills. On the other hand, this social interactive learning enhances creativity and innovativeness which Ko and Butler (2007) identifies as the core components of the whole entrepreneurship process.

3. Methodology

The work entailed a survey and an analysis of the course content, the teaching methods, and the students learning methods of the entrepreneurship education course of Ho Polytechnic. The survey was conducted on the Graduates and Tutors of Ho Polytechnic. The choice was based on the fact that the graduates successfully gone through the theoretical and practical aspect of the model and are at a better position to speak to the issue. The research strategy employed was both descriptive and quantitative. Descriptive strategy was adopted because the researcher’s wants to identify and obtain information on the characteristics of a particular issue, thus measure the conditions and relationships that exist, (Carter and Williamson, 1996). A total of 750 samples were drawn from final year students using class register for each department as a sampling frame. A sample of 250 was drawn from 1000 final year students for three consecutive years. Thus between 2008/2009-2010/2011 academic year,using cluster random sampling technique.Each department was considered as a cluster. Self-administered questionnaire was used in collecting primary data for the study. Self-administered

questionnaire was used because each person or participants responds to the same set of questions in a predetermined order (Salkind, 2011). Generally, close-ended questions in the form of list: with yes or no options were adopted in the research instrument to enable quick response and less writing. The survey was conducted when students completed the entrepreneurship model and about to finished their final year mostly between June and August.

4. Results and Discussions

Details of teaching contents, teaching methods and learning processes suggested by some researchers, discussed in the literature review guide the discussion of our results. Table 1 below measures the coverage of the entrepreneurship syllabus based on Vesper's criteria, described in the literature.

Table 1. Curriculum Coverage of Entrepreneurship Syllabus

Year	2009	2010	2011	Average Total
Coverage of Knowledge	%	%	%	%
(i) Business General , (ii) Venture-general, and (iii) Opportunity-specific,	44	40	39.8	41.26
(i) Business General and (iii) Opportunity-specific,	28	24	13	18.33
(i) Business General and (ii) Venture-general,	12	8	14	11.33
(ii) Venture-general, and (iii) Opportunity-specific,	2	14	3.2	6.4
(i) Business General , (ii) Venture-general, (iii) Opportunity-specific and (iv) Venture specific	10	16	7	11.00

Source: Field survey 2009-2011

From the table above majority of the students thus 41.26% indicates the syllabus covers three components proposed by vesper i.e. business general knowledge, venture general knowledge and opportunity general knowledge. Eleven percent (11%) of the students however choose the four components. On year on year bases, 44% of respondents in 2009, 40% of respondents in 2010 and 46.8% of the respondent's in 2011 indicates business knowledge, venture knowledge and opportunity knowledge. Assessment of the essential parts in entrepreneurship knowledge, thus the content, shows both curriculum in entrepreneurship education reflects to an extent the components identify by (Vesper, 2004; Gormon et al., 1997; Kourilsky, 1995), however, majority of the students did not select the option that covers the four components. Thus from the majority of students perspective, the course content do not cover the four knowledge areas.

Table 2 examines the teaching methods and its emphasis in an academic year. The emphasis of the methods are assessed using the hours spent on each methods according to the school timetable, and as reported by tutors and students

Lectures, Videos, Tutorials, Guest Lectures, Fieldwork and Life Project were reported by the students and lectures as the main teaching methods for entrepreneurship. Contact hours are hours spent by lectures and tutors with students. Official credit hours are the academic hours assigned to entrepreneurship and this also determine the weight of the course relative to other courses in calculating students' weighted grade points. Entrepreneurship is assigned 3 credit hours and this is multiplied by the number of academic weeks in the two semesters to arrive at the total credit hours. Just as widely pointed out in the literature the teaching method is predominantly lectures which is generally theory, based. Out of the total average 62 contact hours in a year, 56.66 hours are spent on traditional lectures and tutorials. However there are indications of slight increase in the use of other methods. For example videos, fieldtrip, guest lecturers have began to be used and the hours spent on these are rising slightly, albeit, still very low. It is also evident from the table that tutorial hours is

rising steadily which is also a good thing as tutorials tend to be more detail and show students more skills than normal lectures.

Table 2. Teaching Methods and Emphasis (in a Semester/Academic year)

Teaching Methods	Teaching Hours in Academic Year			
	2009	2010	2011	Average
Lectures	40	38	40	39.33
Videos	-	4	6	3.3
Tutorials	14	18	20	17.33
Guest Lectures	-	-	4	1.33
Fieldwork	-	6	6	4
Life project	-	-	-	-
Examination	6	6	6	6
Total Credit Hours per year	72	72	72	72
Total contact Hours	54	62	70	62

Source: Field survey 2009-2011

Much of the literature tends to place emphasis on personal experience as the best way of learning the entrepreneurship. Also presented are the methods reported by students as how they learn the entrepreneurship course and the hours spent on each method. The reported methods and the hours spend by students are shown in table 3 below.

Table 3. Learning Methods

Learning Methods	Student Average Input Hours per Academic Year			
	2009	2010	2011	Average
Attending Lecturers and Tutorials	48	46	47	47
Coursework and other Practical Assignments	18	22	27	22.33
Field Studies	-	6	6	4
Life Projects	-	-	-	-
Reading	40	44	48	44
Group Discussions	10	12	15	12.33
Preparing for Written Exams	24	22	20	22
Student Hours Spent on the Course (hrs)	130	140	148	139.3

Source: Field survey 2009-2011

As evident from table 3, the reported learning methods largely mirrored the teaching methods. Students spend about 139 hours a year (5 hours a week) on the course. This is quite high compared with the assigned 3 credit hours. Longitudinally just as contact hours, students hours spent on the course follow an increasing trend seemingly indicating increasing interest in the course. Students spend greater part of their time, -- 113 out 139 on average--- attending lectures, reading and preparing for exams.

Even though life projects were indicated as way of learning the course no, time were reported on it during the period. There was evidence of some time being spent on field studies and coursework and practical assignments even though quite low given the emphasis on the personal experience in the literature. The emphasis on coursework and practical assignment rather follows an increasing trend which is good news. Even though the students had two months vacation attachments in their first and second years this is not related to the entrepreneurship course and were largely in Government institutions rather than with small businesses.

Table 4 below assessed the preparedness of the graduates to set up a business based on the teaching method, learning methods used and syllabus coverage.

Table 4. Capacity to Start a Business based on teaching methods

Year	2009	2010	2011	Total
Capacity To Start Business	Responses			
	%	%	%	%
Strongly Agreed	4	7.2	3.6	4.93
Agreed	6	12.8	2.8	7.20
Not Known	11.2	6.8	7.2	8.40
Disagreed	68.8	67.2	76.8	70.93
Strongly Disagreed	10	6	9.6	8.53
Total	100	100	100	100

From the table, all students were asked to rate whether the instruction received has developed their capacity to start new business after school on a five point Likert scale. Majority of the respondents thus 79.46% indicate that they cannot start a business (70.93% disagreed and 8.53 strongly disagreed). Only 12.13% thus 4.93% strongly agreed and 7.20% agreed that they can start a new business with the knowledge acquired.

5. Conclusion and Recommendation

The literature seems to have expressed a strong link between entrepreneurship education and the development of entrepreneurial mindsets (Gorman et al., 1997; Ronstadt, 1987; European Commission, 2004). In contrast the study found rather a weaker link between the entrepreneurship development course of the polytechnic and preparedness of grandaunts to create businesses, at least from the student perspective. Few agreed that the knowledge and the skills acquired have developed their capacity to create businesses. Of course, the study also revealed counter evidence of increasing student interest in entrepreneurship.

The low perception of readiness for the business world among graduates may be largely due to the teaching and learning methods. There are recognitions of the need to adapt and use new, non-traditional and more competency based methods of teaching and learning the course. However these are constraint by time and cost.

Entrepreneurship education is a compulsory module in the curriculum of every Polytechnic in Ghana; hence there is a guarantee that every student would do a course in entrepreneurship before graduation. However, Ghana's case is best classified by Levie's (1999) study into entrepreneurship education in England. He found that entrepreneurship teaching and courses are generally classified into two approaches: courses *for* entrepreneurship and courses *about* entrepreneurship. By and large the entrepreneurship education in Ghana is "courses about entrepreneurship". The lack of non-traditional teaching and delivery methods epitomizes this sentiment.

From our discussion above, we recommend government and other stakeholders to ensure that educational programmes at all levels of education are made relevant to provide the youths and graduates the needed entrepreneurial skills. To do this:

- The institutions mandated thus National Board for Technical Examination (NABTEX) should prepare a comprehensive curriculum for the Polytechnics that should contain the essentials of Syllabi and it should cover the six semesters of the Polytechnic education.
- The teaching method for entrepreneurship education should be modified to include a planned and well-coordinated placement or work experience in and small businesses. This we believe will provide firsthand information to students of how it is been done and the experiences involves and to engendered and grow entrepreneurial mindset of the youth and create entrepreneurial culture. It would also raises students' self-awareness of their strengths and weaknesses, increases their readiness to take risk, and enhances their creativity through helping them to exploit their full potential, regard mistakes as learning opportunities, and encourage critical thinking (Fuchs et al., 2008).

- Creation of organizational unit in charge of entrepreneurship development with the mandate and mission to help developed and support the growth of students' small business.

This paper provides a descriptive insight on entrepreneurship education in Ghanaian Polytechnic. It is worthy of note that the study was conducted in only one of the 10 Polytechnics in Ghana hence the sample size used is small compared to the ten Polytechnics therefore no generalizations can be made. Also no attempt has been made to compare the entrepreneurship intentions between students receiving entrepreneurship education in Ghanaian Polytechnics and other tertiary institutions receiving entrepreneurship education. These limitations can nonetheless be considered as opportunities for future research.

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