



## QUALITY AND RELEVANCE OF ENTREPRENEURIAL EDUCATION IN GHANA: PERSPECTIVES OF UNDERGRADUATE STUDENTS

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### Abstract

*Development agents advocate that with the rising unemployment among graduates, attention should focus on the private sector to create employment and promote development. Hence, the need for active human capital development through entrepreneurship education becomes crucial. As a response, universities in Ghana have introduced entrepreneurship as an undergraduate programme. However, the sustained increases in graduate unemployment over the years raise questions about the quality of entrepreneurship education. This paper analyses the views of students regarding the quality and relevance of entrepreneurial education in Ghanaian universities. We employed a descriptive cross-sectional research design and collected primary data from 342 undergraduate students, randomly selected from Takoradi Technical University (TTU) and University for Development Studies (UDS), using a questionnaire. Data were analysed using descriptive statistics, Chi-Square ( $\chi^2$ ), and Mann-Whitney U tests. The results revealed that entrepreneurship curricular and teaching methods in TTU and UDS are consistent with the recommended active and learner-centred approach. We recommend that entrepreneurship should be a compulsory course at the undergraduate level to boost students' entrepreneurial intention and propel economic growth.*

**Keywords:** *Entrepreneurship education, Ghana, Higher Academic institutions, Teaching methods, Undergraduates*

### Introduction

Entrepreneurship education (EE) prepares people, especially the youth, to become responsible and enterprising individuals with the potential to contribute to economic development and sustainable communities (Oguntimehin & Nwosu, 2014). In developed and developing countries, EE is a critical economic driver for economic growth and sustainable development (Oguntimehin & Nwosu, 2014; Asitik, 2015). Entrepreneurship training is meant to sensitise both the literate and illiterate to change the mental orientation of "job-seeking" to "job-giving"; and to modernise and inject new ideas and technologies to enhance national socio-economic development. EE based on experiential learning serves as a useful tool for economic growth

through job creation. Globally, the introduction of EE in higher education enhances entrepreneurial skills for economic growth (Gyamfi, 2014). Some of the benefits of entrepreneurship include the creation of new technologies, products and services, improving productivity, and promoting rapid economic growth (Asitik, 2015; Oguntimehin & Nwosu, 2014). Quality EE assists graduates to understand and equip themselves with entrepreneurship knowledge, skills, and develop attitudes relevant to job generation, building self-confidence, and promoting self-employment as an alternative career option (Pual, 2017; Maina, 2014). Similarly, EE enhances capabilities required to trigger deep learning and instil engagement, joy,

motivation, confidence, and feelings of relevancy among students (Lekeus, 2015).

EE at the higher academic level is the priority of some governments as a potential means of building capacities of private managers as tertiary institutions monitor economic growth through science, technology, and innovation (British Council, 2016; Bamfo, Asiedu-Appiah, & Oppong-Boakye, 2015). In Ghana, the government and various stakeholders perceive entrepreneurship as a means of curbing the country's rising unemployment rate (Afriyie & Boohene, 2014). Hence, the government and its partners launched the National Entrepreneurship and Innovation Plan (NEIP) and National Business Plan to promote the development of entrepreneurship (Government of Ghana [GoG], 2014).

Despite the role entrepreneurship plays in economic development, countries in Sub-Saharan Africa (SSA) are yet to develop strategies and coherent policies to assist people without formal education in the informal sector to gain entrepreneurship knowledge and skills to utilise its entrepreneurial potentials (Hinson, Bawuah & Buame, 2006). In tertiary institutions, teaching and assessment, as well as research in entrepreneurship, are less rigorous and both teaching and assessment methods are teacher-centred, less participatory, making students inactive instead of being active participants in the process (Pardie & Akoto, 2015; Gaymfi, 2014).

It is not clear whether the delivery of entrepreneurship courses in Ghanaian universities is that of experiential learning. This paper sought to analyse students' perspectives on the quality and relevance of entrepreneurial education in Ghanaian universities. The study also assessed the difference in the distribution of EE curricula, teaching methodologies, and the university's role in promoting entrepreneurship in Ghana.

### **Related Literature**

Entrepreneurship education underpins the need for both employable skills curriculum and teachers with an excellent understanding of entrepreneurship (Zenner, Kumar & Pilz, 2017). The inclusion of functionally designed and well-taught

entrepreneurship-related courses across all disciplines can potentially enhance entrepreneurial-based knowledge, skills, and attitudes, and reduce both graduate unemployment and underemployment (Maina, 2014). In Africa, entrepreneurship and small business management courses are meant to develop entrepreneurial skills and increase students' entrepreneurial potentials (Hinson et al., 2006). In Ghana, entrepreneurship is a compulsory two-semester course for all students pursuing Higher National Diploma (HND) certificates in Polytechnics, now Technical Universities but optional in most universities.

Though globally, there has been an improvement in economic growth, macroeconomic stability, and infrastructure in the past two decades, these have not triggered any significant increase in employment (Pardie & Akoto, 2015, Oyebola, Ireferin, & Olaposi, 2015). The rising unemployment phenomenon in Ghana is due to new graduates lacking skills demanded by the labour market and to bridge the skill gap requires multi-stakeholder action focusing on EE and training, providing excellent facilities for teaching, learning, and training (GoG, 2014; Valerio, Parton & Robb, 2014). Also, the need to strengthen technical and vocational education and training, concentrating on developing labour market-related skills (British Council, 2016). Hence, the need for EE to provide learners with both entrepreneurial and innovative skills required to revitalise a nation's malfunctioning bureaucratic institutions and improve the quality of the human resources through youth empowerment, advancement in technology, and being competitive in the labour market (Sofoluwe, Shokunbi, Raimi & Ajewole, 2013).

The proponents argued that EE is a potential source of job and wealth creation and especially encourages students to include self-employment in their career intention and aspirations, as they become self-reliant (Afriyie & Boohene, 2014; Paul, 2017).

Quality EE depends more on the teaching method and selecting a teaching approach is influenced by different factors including the objective of EE (Arasti, Falavarjani & Imanipour, 2012; Wahid, Ibrahim, Hashim & Chandra, 2015). The aim of

entrepreneurial education transcends the nature of the new business to encapsulate issues of ambiguity associated with the creation of markets and requisite skills to manage challenges in the labour market (Stadler & Smith, 2017). Therefore, to enhance active student participation in EE, there is the need to shift from the traditional lecture methods, which is inactive and cannot drive innovative thoughts, to an interactive action-based teaching approach (Mwasalwiba, 2010; Shariff, Hazri, Mohamad & Jusoff, 2010). Such innovative teaching approaches are suitable for experiential learning, which potentially increases student's problem-solving abilities as they learn through practice (Jones & Iredale, 2010). Arguably, the traditional method of teaching results in the mismatch of knowledge and skills of graduates and the demand of industry in recent times. The active process which is appropriate involves individual presentations, workshops, group discussions, group projects, guest speakers, business study visits, and developing of business plans among others (Maritz & Brown, 2013; Ruswanti, 2016). Hence, entrepreneurship educators are encouraged to shift toward adopting problem solving-based learning approach (Wahid et al., 2015), and an 'active' method that develops entrepreneurship traits of learners (Mwasalwiba, 2010) which potentially prepares them to deal with day-to-day challenges in real-life situations.

## **Methodology**

### ***Research Philosophy and Design***

This study adopted the post-positivists methodological viewpoint in which outcomes of a social phenomenon are determined by probable causes (Creswell, 2013; Mertens, 2014). Hence, a quantitative research strategy involving descriptive cross-sectional survey was employed in conducting this study (Creswell, 2013). The descriptive cross-sectional study was valuable in providing a snapshot assessment of the quality and relevance of entrepreneurial education from the perspectives of undergraduate students in Ghana.

### ***Study Population, Sampling Procedure, and Sample Size***

The study population consisted of undergraduate students who studied entrepreneurship-related programmes at the University for Development Studies (UDS) and Takoradi Technical University (TTU) in Ghana. The target population (1705) consisted of 488 students of UDS and 1217 students of TTU. The simple random sampling procedure was employed in selecting a sample of size of 324 students, which was determined by a statistical formula proposed by Yamane (1973) for sample size determination specified as:

$$n = \frac{N}{1+N(e)^2}$$

In the formula,  $n$  is the sample size,  $N$  represents the sample frame (1705),  $l$  is a constant, and  $e$  is the margin of error (5%). The simple random sampling procedure was done by entering the sample frame represented by students' ID numbers into a Microsoft Excel spreadsheet and then generated the random sample from the students' ID numbers with the RAND function in Excel.

### ***Data Sources, Characteristics and Methods of Collection***

The study relied on both secondary and primary data from self-reported views of the undergraduate students with the willingness to participate in the survey based on informed consent. The data consisted of background information of the respondents, current entrepreneurship curricula, teaching methodologies, and the role of universities in promoting entrepreneurship education. A five-point Likert scale questionnaire designed with response sets ranging from Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D) and Strongly Disagree (SD) and a corresponding score (1 to 5) was used to elicit data from the respondents.

### ***Data Processing and Analysis***

Microsoft Excel 2016 and IBM SPSS Statistics version 24 were the softwares used to facilitate data analysis. The study employed descriptive statistics (e.g., frequency and percentage) and tables for data analysis. The study also used Pearson Chi-Square ( $\chi^2$ ) and Mann-Whitney U test to assess the differences in quality and relevance of entrepreneurial education among the background characteristics of the undergraduate students of UDS

and TTU with the level of significance ( $p < .05$ ). Effect size ( $r$ ), for the Mann-Whitney U test, was estimated by,

$$r = \frac{Z}{\sqrt{N}}$$

where  $Z$  is z-score, and  $N$  is the sample size (Field, 2013). The magnitude of significant difference was determined based on the criteria (Very small: .01, Small: .20, Medium: .50, Large: .80, Very large: 1.20, and Huge: 2.0 (Cohen, 1988; Sawilowsky,

2009). The Mann-Whitney U test was appropriate because the data was categorical, measured on an ordinal scale, and failed to meet stringent assumptions of parametric tests.

## Results and Discussion

### Background Characteristics of Respondents

Table 1 illustrates the  $\chi^2$  tests for differences in the distribution of respondents' background characteristics between UDS and TTU.

**Table 1. Background Information of Respondents (n=324)**

Characteristics	Total F (%)	University		Chi-Square( $\chi^2$ )	P-value	Effect size
		UDS F (%)	TTU F (%)			
<i>Age:</i>						
< 21	48(14.8)	32(66.7)	16(33.7)			
21-25	223(68.8)	55(24.7)	168(75.3)	40.776	.000	$V = .355$
26-30	45(13.9)	23(51.1)	23(13.9)			
30+	8(2.5)	6(75.0)	2(25.0)			
<i>Gender:</i>						
Male	208(64.2)	82(39.4)	126(60.6)			
Female	116(35.8)	33(28.4)	83(71.6)	3.918	.053	$Phi = .048$
<i>Area of study:</i>						
Business	181(55.9)	43(23.8)	138(76.2)			
Management	63(19.4)	44(69.8)	19(30.2)			
Electrical Engineering	17(5.2)	0(0.0)	17(100.0)			
Entrepreneurship and Economics	27(8.3)	27(100.0)	0(0.0)	114.535	.000	$V = .595$
Construction/Building Technology	1(0.3)	0(0.0)	1(100.0)			
Mechanical Engineering	32(9.9)	0(0.0)	32(100)			
Accounting and Finance	3(0.9)	0(0.0)	3(100.0)			
<i>Certificate to be obtained:</i>						
Degree	137(42.3)	115(83.9)	22(16.1)			
HND	187(57.7)	0(0.0)	187(100.0)	243.342	.000	$Phi = .867$

Source: Field survey, 2018

The results of the survey showed that 68.8% of the respondents were within the age group of 21-25 years. Comparatively, more students (75%) from UDS were over 30 years while more students (75.3%) from TTU were within the age group of 21-25 years.

The difference in the age distribution of students between UDS and TTU was significant ( $p < .001$ ) with small effect size (Table 1).

Based on the gender distribution of respondents, there were more males (64.2%) as compared to females. Similarly, there were more male students of UDS and TTU as compared to female students in both universities. The gender distribution of students showed that a significant proportion of potential entrepreneurs in Ghana were likely to be males as compared to females who were beneficiaries of entrepreneurship education from the universities. There was evidence that the difference in gender distribution between the two universities was significant ( $p = .05$ ) with a small effect size. The distribution of study areas of students between UDS and TTU showed that the majority (55.9%) of the students were pursuing ‘Business,’ followed by ‘Management’ with 19.4%. The difference in the distribution of study areas between the two universities indicates that more students from UDS were pursuing ‘Entrepreneurship and Economics’ (100%) and none from TTU, while more students from TTU were pursuing ‘Business’ (76.2%), ‘Electrical Engineering’ (100%), ‘Construction and Building Technology’ (100%), ‘Mechanical Engineering’ (100%), and ‘Accounting and Finance’ (100%). Hence, the apparent difference in the

distribution of study areas between UDS and TTU was significant ( $p < .001$ ), and the effect size was medium (Table 1). Also, the distribution of the type of certificate to be obtained by the students from both institutions revealed that 83.9% and 16.1% of the students from UDS and TTU respectively sought to obtain degree certificates. However, no student from UDS sought to obtain an HND certificate as it was not an option (Table 1). The perceived differences in the distribution of the type of certificate pursued by students from UDS and TTU was significant ( $p < .001$ ) with a large effect size (Table 1).

### ***Entrepreneurship Curricula***

Nine Likert items were used to elicit the students’ opinion on the current state of the entrepreneurship curricula based on response options in the range (SA to SD) (Table 2). Accordingly, 64.2% of the students affirmed that the entrepreneurship course was developed to meet the needs of the economy while 23.5% answered in the negative (Table 2). The score of degree students ( $Mdn = 3.92$ ) as compared to the score of HND students ( $Mdn = 3.80$ ) in the distribution of ‘the entrepreneurship course is developed to meet the needs of the economy’ did not differ significantly ( $U = 12089.50, z = -.89, p = .369, r = -.05$ ) (Table 3).

**Table 2. Current Entrepreneurship Curricula (n=324)**

Statement	SA %	A %	N %	D %	SD %
The entrepreneurship course is developed to meet the needs of the economy	29.0	35.2	12.3	5.6	17.9
The subject entrepreneurship is interesting because of its interactive learning nature	29.0	41.0	14.8	7.1	8.0
I like entrepreneurship as a course than other courses	22.8	25.9	28.7	13.6	9.0
I gain new experience pursuing the entrepreneurship course	38.0	36.4	10.8	6.5	8.3
I have developed entrepreneurial skills through the course	31.5	36.4	14.5	7.4	10.2
I have gained sound knowledge about business through the entrepreneurship course	32.4	40.4	12.3	5.2	9.6
Entrepreneurship lessons are reflections of the real-world situation	33.3	35.2	17.6	5.9	8.0
Through the entrepreneurship course, I can deal with risk	26.5	38.9	20.7	7.1	6.8

Through the entrepreneurship course, I can deal with uncertainty and ambiguity

18.5      41.4      23.1      8.6      8.3

Source: Field survey, 2018

Also, 70% of the students confirmed that entrepreneurship as a subject was interesting because of its interactive learning nature while 15.1% disapproved. The distribution of ‘the subject entrepreneurship is interesting because of its interactive learning nature’ between degree students ( $Mdn = 4.06$ ) and HND students ( $Mdn = 3.91$ ), did not differ significantly ( $U = 11846.50, z = -1.21, p = .224, r = -.07$ ). Furthermore, while 48.7% of the students agreed that they liked entrepreneurship as a course as compared to other courses, 28.7% were undecided, and 21.6% disagreed (Table 2). The distribution of ‘I like entrepreneurship than other courses’ for degree students ( $Mdn = 3.79$ ) as compared to HND students ( $Mdn = 3.26$ ) differed significantly,  $U = 10201.50, z = -3.22, p = .001, r = -.18$  (Table 3). However, the effect size in the difference between a degree and HND student was small. Similarly, 74.4% of the students affirmed that they gained new experiences pursuing the entrepreneurship course. However, 14.8% disagreed that they gained new experiences pursuing the entrepreneurship course (Table 2). Based on the Mann-Whitney test, the distribution of ‘I gain new experience pursuing the course’ for degree students ( $Mdn = 4.25$ ) did not differ significantly from HND students ( $Mdn = 4.09$ ),  $U = 11639.50, z = -1.48, p = .138, r = -.08$  (Table 3). More so, while 67.9% of the respondents agreed with the statement that they developed entrepreneurship skills through the course, 17.6% were not in agreement. Comparatively, the difference in the distribution of ‘I have developed entrepreneurial skills through the course’ between degree students ( $Mdn = 4.06$ ) and HND students ( $Mdn = 3.91$ ) was not significant,  $U = 12048.00, z = -.95, p = .339, r = -.05$ . Furthermore, 72.8% of the students answered in the affirmative that they had gained sound knowledge about business through the entrepreneurship course while 14.8% disagreed. The scores of the distribution of ‘I have gained sound knowledge about business through the course’ for degree students ( $Mdn = 4.18$ ) did not differ significantly from HND students ( $Mdn = 3.97$ ),  $U = 11400.00, z = -1.78, p = .074, r = -.10$ .

**Table 3. The Difference in the Distribution of Current Entrepreneurship Curricula Across Certificate to be Obtained**

Entrepreneurship curricula	Certificate to obtain	Mean score	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	Sig.
The entrepreneurship course meets our needs	Degree	3.66	167.76	22982.50			
	HND	3.42	158.65	29667.50			
	Total	3.52			12089.50	-0.89	.369
The subject is interesting because of its interactive learning nature	Degree	3.88	169.53	23225.50			
	HND	3.67	157.35	29424.50			
	Total	3.76			11846.50	-1.21	.224
I like entrepreneurship than other courses	Degree	3.64	181.54	24870.50			
	HND	3.22	148.55	27779.50			
	Total	3.40			10201.50	-3.22	.001

I gain new experience in pursuing the course.	Degree	4.04	171.04	23432.50			
	HND	3.79	156.24	29217.50			
	Total	3.89			11639.50	-1.48	.138
I have entrepreneurial skills through the course.	Degree	3.80	168.06	23024.00			
	HND	3.65	158.43	29626.00			
	Total	3.72			12048.00	-.95	.339
I have gained sound knowledge about business through the course	Degree	3.96	172.79	23672.00			
	HND	3.70	154.96	28978.00			
	Total	3.81			11400.00	-1.78	.074
Entrepreneurship lessons are real-world situations	Degree	3.85	163.32	22375.50			
	HND	3.76	161.90	30274.50			
	Total	3.80			12696.50	-.14	.887
Through the course, I can deal with uncertainty	Degree	3.75	162.35	22241.50			
	HND	3.68	162.61	30408.50			
	Total	3.71			12788.50	-.02	.979
Through the course, I can deal with ambiguity	Degree	3.55	161.38	22109.50			
	HND	3.52	163.32	30540.50			
	Total	3.53			12656.50	-.19	.847

Source: Authors, 2018

Besides, as to whether entrepreneurship lessons were reflections of the real-world situation, 68.5% of the respondents answered positively while 13.9% answered in the negative. The distribution of entrepreneurship lessons were reflections of the real-world situations between degree students ( $Mdn = 4.03$ ) and HND students ( $Mdn = 4.02$ ) were not significantly different,  $U = 12696.50$ ,  $z = -0.14$ ,  $p = .887$ ,  $r = -.01$ . As to whether through the entrepreneurship course, students could deal with risk, 65.4% agreed and 13.9% disagreed (Table 3). There was no significant difference ( $U = 12788.50$ ,  $z = -.02$ ,  $p = .979$ ,  $r = -.001$ ) in the distribution of ‘through the entrepreneurship course, I can deal with risk’ between degree students ( $Mdn = 3.86$ ) and HND students ( $Mdn = 3.87$ ). Lastly, as to whether

through the entrepreneurship course, students could deal with uncertainty and ambiguity, 59.9% answered in the affirmative, while 16.9% had contrary answers (Table 2). Based on the scores of the distribution of ‘through the entrepreneurship course, I can deal with uncertainty and ambiguity’, there was no significant difference ( $U = 12656.50$ ,  $z = -.19$ ,  $p = .847$ ,  $r = -.01$ ) (Table 3) between degree students ( $Mdn = 3.65$ ) and HND students ( $Mdn = 3.68$ ).

### **Teaching Methodologies of Entrepreneurship**

Nine Likert items were used to ascertain the perspectives of students on how teaching methodologies in their institutions were effective in

providing EE (Table 4). Table 5 shows the difference in the distribution of teaching methodologies of entrepreneurship based on nine Likert items across respondents' institution of study.

First, as to whether lecturers taught the entrepreneurship courses to meet the real-world needs, 55.9% answered in the affirmative, while 22.2% answered in the negative (Table 4). There was no evidence of significant difference ( $U = 11579.50$ ,  $z = -.562$ ,  $p = .574$ ,  $r = -.03$ ) (see Table 5) in the distribution of 'lecturers teach the entrepreneurship courses to meet the real-world need' between UDS ( $Mdn = 3.63$ ) and TTU ( $Mdn = 3.55$ ). With regards to the statement as to whether 'lecturers demonstrated their experiences in teaching entrepreneurship courses', 59.8% responded

positively, and 21.9% responded negatively. There was no adequate evidence of significant difference ( $U = 11725.00$ ,  $z = -.376$ ,  $p = .707$ ,  $r = -.02$ ) in the distribution of 'lecturers demonstrate their experiences in teaching entrepreneurship courses' between UDS ( $Mdn = 3.74$ ) and TTU ( $Mdn = 3.66$ ). Also, while 54.6% affirmed that the methodologies used by lecturers to deliver the entrepreneurship courses were exciting, 20.6% disagreed (Table 4). There was no significant difference ( $U = 11579.50$ ,  $z = -.809$ ,  $p = .418$ ,  $r = -.05$ , see Table 5) in the distribution of 'the methodologies used by lecturers to deliver the entrepreneurship courses are very interesting' between UDS ( $Mdn = 3.48$ ) and TTU ( $Mdn = 3.59$ ).

**Table 4. Teaching Methodologies (n=324)**

Statement	SA %	A %	N %	D %	SD %
Lecturers teach the entrepreneurship courses to meet the real-world need	19.8	36.1	21.9	9.9	12.3
Lecturers demonstrate their experiences in teaching entrepreneurship courses	23.1	36.7	18.2	10.8	11.1
The methodologies used by lecturers to deliver the entrepreneurship courses are exciting	17.3	37.3	24.7	12.0	8.6
The industrial visits organised by lecturers are a source of knowledge	21.3	36.1	20.7	7.7	14.2
Lecturers are good and have an excellent way of presenting the entrepreneurship courses	23.5	37.7	20.7	8.0	10.2
Lecturers present a comprehensive business plan model that prepares me for the real-world of work	20.4	34.2	26.9	8.0	10.5
Lecturers teaching methodologies stimulate my interest in an entrepreneurship course	17.9	39.2	25.0	9.6	8.3
The stories of great entrepreneurs told during lectures motivates me to develop an interest in business ventures	33.3	32.7	16.7	6.5	10.8
The participatory nature of entrepreneurship lectures makes lessons engaging	23.1	40.1	20.4	6.5	9.9



Source: Field survey, 2018

Similarly, the study showed that 57.4% of the students were in support that the industrial visits organised by lecturers were a source of knowledge. However, 21.9% were not in support (Table 4). The difference in the distribution of the industrial visits organised by lecturers are a source of knowledge between UDS (*Mdn* = 3.53) and TTU (*Mdn* = 3.63) was not significant,  $U = 11215.50$ ,  $z = -1.030$ ,  $p = .303$ ,  $r = -.06$ .

**Table 5. The Difference in the Distribution of Teaching Methodologies Across Institutions**

Teaching methodologies	Universities	Mean score	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	Sig.
Lecturers teach the entrepreneurship course to meet real-world needs	UDS	3.49	166.31	19125.50	11579.50	-0.56	0.57
	TTU	3.37	160.40	33524.50			
	Total	3.41					
Lecturers demonstrate their experiences in teaching	UDS	3.55	165.04	18980.00	11725.00	-0.37	0.71
	TTU	3.47	161.10	33670.00			
	Total	3.50					
The methodologies used to deliver the courses are very interesting	UDS	3.37	157.04	18059.50	11389.50	-0.81	0.42
	TTU	3.46	165.50	34590.50			
	Total	3.43					
The industrial visits organised by the lecturers are sources of knowledge	UDS	3.34	155.53	17885.50	11215.50	-1.03	0.30
	TTU	3.47	166.34	34764.50			
	Total	3.43					
Lecturers are good and have excellent ways of presenting courses	UDS	3.59	163.48	18800.00	11905.00	-0.14	0.88
	TTU	3.55	161.96	33850.00			
	Total	3.56					
Lecturers present a comprehensive business plan model	UDS	3.35	152.81	17573.50	10903.50	-1.43	0.15
	TTU	3.52	167.83	35076.50			
	Total	3.46					

Lecturers teach using methodologies that stimulate my interest	UDS	3.58	170.64	19623.50			
	TTU	3.44	158.02	33026.50	11081.50	-1.21	0.22
	Total	3.49					
The stories of great entrepreneurs told during lectures motivates	UDS	3.85	174.00	20010.00			
	TTU	3.64	156.17	32640.00	10695.00	-1.71	0.08
	Total	3.71					
The participatory nature of lectures makes lessons engaging	UDS	3.67	168.15	19337.00			
	TTU	3.56	159.39	33313.00	11368.00	-0.84	0.40
	Total	3.60					

Source: Authors, 2018

Again, in ascertaining whether lecturers were good and had an excellent way of presenting the entrepreneurship courses, 61.2% answered in the affirmative, while 18.2% responded in the negative (Table 4). The results of the difference in the distribution of ‘lecturers are good and have an excellent way of presenting the entrepreneurship courses’ between UDS ( $Mdn = 3.74$ ) and TTU ( $Mdn = 3.73$ ) was not significant,  $U = 11905.00$ ,  $z = -.145$ ,  $p = .885$ ,  $r = -.01$  (Table 5). Furthermore, with regards to whether lecturers presented a comprehensive business plan model that prepared students for the real-world of work, 54.6% agreed, and 18.5% disagreed (Table 4). There was no significant difference ( $U = 10903.50$ ,  $z = -1.432$ ,  $p = .152$ ,  $r = -.08$ , Table 5) in the distribution of ‘lecturers present a comprehensive business plan model that prepares me for the real-world of work’ between UDS ( $Mdn = 3.47$ ) and TTU ( $Mdn = 3.66$ ).

As to whether lecturers taught with methodologies that stimulated students’ interest in the entrepreneurship course, 57.1% answered in approval, but 17.9% answered in disapproval (Table 4). The distribution of ‘lecturers’ teaching methodologies stimulates my interest in an entrepreneurship course’ between UDS ( $Mdn = 3.72$ ) and TTU ( $Mdn = 3.55$ ) were not significantly

different,  $U = 11081.50$ ,  $z = -1.212$ ,  $p = .225$ ,  $r = -.07$  (Table 5). Also, as to whether the stories of great entrepreneurs told during lectures motivated students to develop an interest in business ventures, 66.0% answered positively while 17.3% answered negatively (Table 4). The distribution of ‘the stories of great entrepreneurs told during lectures motivates me to develop an interest in business ventures’ between UDS ( $Mdn = 4.15$ ) and TTU ( $Mdn = 3.86$ ) did not differ significantly,  $U = 10695.00$ ,  $z = -1.707$ ,  $p = .088$ ,  $r = -.09$  (Table 5). The last statement as to whether the participatory nature of entrepreneurship lectures made lessons engaging, 63.2% agreed, and 16.4% disagreed (Table 4). Distribution of the ‘participatory nature of entrepreneurship lectures makes lessons engaging’ did not differ significantly ( $U = 11368.00$ ,  $z = -.842$ ,  $p = .400$ ,  $r = -.05$ ) (Table 5) between UDS ( $Mdn = 3.86$ ) and TTU ( $Mdn = 3.73$ ).

### University’s Role in Promoting Entrepreneurship

The study relied on six Likert items to assess the opinion of 324 students on the role of the university in promoting entrepreneurship (Table 6). Consequently, the study showed that as to whether

entrepreneurship was the top discussed course in students' institutions, 35.6% answered in the affirmative, 28.7% were not sure while 35.5% answered in the negative (Table 6). The test of difference in the distribution of 'entrepreneurship is the top discussed course in my institution' between UDS ( $Mdn = 2.89$ ) and TTU ( $Mdn = 3.07$ ) was not significant,  $U = 10939.00$ ,  $z = -1.375$ ,  $p = .169$ ,  $r = -.08$  (Table 7). Also, as to whether in the institutions, entrepreneurship was compulsory for all students, 45.3% responded positively, and 35.5% responded in the negative (Table 6). There was adequate evidence of significant difference ( $U = 8974.50$ ,  $z = -3.853$ ,  $p < .001$ ,  $r = -.21$ ) (Table 7) with a small effect size between UDS ( $Mdn = 2.64$ ) and TTU ( $Mdn = 3.53$ ) in the distribution of 'in my institution, entrepreneurship is compulsory for all students'. Similarly, about whether the student's institution did not have adequate facilities to promote

entrepreneurship studies, 53.7% agreed while 26.2% disagreed (Table 6). The difference in the distribution of 'my institution does not have adequate facilities to promote the entrepreneurship studies' between UDS ( $Mdn = 3.81$ ) and TTU ( $Mdn = 3.43$ ) was significantly different,  $U = 10428.50$ ,  $z = -2.023$ ,  $p = .043$ ,  $r = -.11$  (Table 7) with a very small effect size.

Furthermore, as to whether the institution's environment motivated students to develop innovative ideas for new businesses, 42.3% answered in support, while 34.3% were not in support (Table 6). The difference in the distribution of 'my institution's environment motivates me to develop innovative ideas for new business' between UDS ( $Mdn = 3.21$ ) and TTU ( $Mdn = 3.12$ ) was not significantly different,  $U = 11660.50$ ,  $z = -.454$ ,  $p = .650$ ,  $r = -.02$  (Table 7).

**Table 6. University Role in Promoting Entrepreneurship (n=324)**

Statement	SA	A	N	D	SD
	%	%	%	%	%
Entrepreneurship is the top discussed course in my institution	13.0	22.8	28.7	25.6	9.9
In my institution, entrepreneurship is compulsory for all students	22.5	22.8	19.1	17.3	18.2
My institution does not have adequate facilities to promote the entrepreneurship studies	24.4	29.3	20.1	14.5	11.7
My institution environment motivates me to develop innovative ideas for new business	13.3	29.0	23.5	19.8	14.5
My institution provides resources to assist students in entrepreneurship training	8.3	18.2	17.3	30.2	25.9
I think my institution is the appropriate place for entrepreneurship training	12.3	25.0	23.8	19.4	19.4

Source: Field survey, 2018

Also, as to whether the institution provided resources to assist students in entrepreneurship training, the study revealed that 26.5% responded positively while 56.1% responded negatively. The difference in the distribution of my institution provides resources to assist students in entrepreneurship training between UDS ( $Mdn = 1.95$ ) and TTU ( $Mdn = 2.58$ ) was significantly different,  $U = 9262.50$ ,  $z = -3.510$ ,  $p < .001$ ,  $r = -.20$ , with a small effect size. Finally, in ascertaining, whether students thought that their institution was the appropriate place for entrepreneurship training, 37.35 answered positively, and 38.8% answered negatively (Table 6). The distribution

of 'I think my institution is the appropriate place for entrepreneurship training' between UDS (*Mdn* = 2.92) and TTU (*Mdn* = 2.99) was not significantly different,  $U = 11291.50$ ,  $z = -.921$ ,  $p = .357$ ,  $r = -.05$  (Table 7).

**Table 7. The difference in the distribution of the university's role in promoting entrepreneurship across institutions**

University role	Universities	Mean score	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	Sig.
Entrepreneurship is the top discussed course in my institution	UDS	2.90	153.12	17609.00			
	TTU	3.11	167.66	35041.00	10939.00	-1.375	.169
	Total	3.03					
In my institution, entrepreneurship is compulsory for all students	UDS	2.73	136.04	15644.50			
	TTU	3.37	177.06	37005.50	8974.50	-3.853	.000
	Total	3.14					
My institution does not have adequate facilities to promote the entrepreneurship studies	UDS	3.58	176.32	20276.50			
	TTU	3.30	154.90	32373.50	10428.50	-2.023	.043
	Total	3.40					
My institution environment motivates me to develop innovative ideas for new business	UDS	3.10	165.60	19044.50			
	TTU	3.05	160.79	36605.50	11660.50	-.454	.650
	Total	3.07					
My institution provides resources to assist students in entrepreneurship training	UDS	2.21	138.50	15937.50			
	TTU	2.70	175.66	36712.50	9262.50	-3.510	.000
	Total						

	Total	2.53					
I think my institution is the appropriate place for entrepreneurship training	UDS	2.82	156.19	17961.50			
	TTU	2.97	165.97	34688.50	12291.50	-.921	.357
	Total	2.91					

Source: Authors, 2018

## Discussion

Several studies suggest that the relevance of EE curricula is in providing students with valuable knowledge, skills, and attitudes that foster entrepreneurial intentions, boost capacities for entrepreneurial activity and economic development (Kautonen, van Gelderen & Fink, 2015; Rauch & Hulsink, 2015; Walter, Parboteeah & Walter, 2013). Our findings suggest that entrepreneurship education curricula were valuable in satisfying the needs of the economy. Such entrepreneurship-specific needs of an economy include, but are not limited to, the development of innovative business ideas, new business creation, self-employment and job creation (Van Praag & Versloot, 2007; Walter et al., 2013), which are potential drivers of economic development. Student-centred curricula as the study indicated aid learners to develop requisite skills (e.g., communication, negotiation, social networking, problem-solving, time management, critical and creative thinking) which are essential ingredients of entrepreneurship (Kirby, 2004). Furthermore, the curricula also served as a foundation for providing sound knowledge about business, reflected the real-world situation of entrepreneurship, and inspired students to deal with risk, uncertainty, and ambiguity. As shown in earlier studies, we found EE curricula as a source of gaining new experience and developing entrepreneurship skills and mindsets (Kirby, 2004). Ensuring EE is exciting and useful but requires the use of various methods of andragogy and pedagogy (Mwasalwiba, 2010). The methodological approach of teaching and learning entrepreneurship, as found in the study, suggests lecturers demonstrated good entrepreneurship teaching experience and delivered engaging lessons which resulted in preparing students to meet real-world

needs. As noted by scholars, an interactive, active, and learner-centred approach is appropriate for EE (Kirby, 2004). Teaching and learning through active methodologies involve diverse activities. Highlights from literature show that teaching approaches include industrial visits, presentations, business plan development, telling stories of great entrepreneurs to motivate students, and the use of the participatory method of teaching to stimulate students' interest in entrepreneurship (Esmi, Marzoughi, & Torkzadeh, 2015; Mwasalwiba, 2010). Traditionally, universities are places for scholarship, research, and advanced level teaching, but neither is this entrepreneurial nor directly promotes entrepreneurship. Our findings revealed that, though inadequate, the universities mostly provided auxiliary facilities, designed entrepreneurship as either a compulsory course or an optional programme of study, created an environment to motivate students to develop innovative ideas for new business, and stimulated discussions on entrepreneurship as a course in the teaching and learning process of EE. As noted in prior studies, universities collaborate with stakeholders to promote entrepreneurship (Edwards & Muir, 2005).

## Conclusions

Higher academic institutions have given entrepreneurship education attention because of its potential positive influence on national economic development. The educational curricula of some higher institutions in Ghana have been designed with some level of emphasis on entrepreneurship training that could address the country's unemployment situation as a development problem. The differences in the distribution of respondents' age, gender, area of study, and certificate across the universities were

significant. Both the curricula and teaching methods adopted in UDS and TTU were consistent with the contemporary approach to teaching and learning in EE, that is, active and learner-centred, which has the potential to promote entrepreneurship development. The difference between the degree and HND students as to whether students liked entrepreneurship courses better than other courses was significant. The difference across the universities was as to whether in the institutions entrepreneurship was compulsory for all students, the institution did not have adequate facilities to promote the entrepreneurship studies, and the institution provided resources to assist students in entrepreneurship training was significant. Therefore, for Ghana to benefit from EE regarding employment creation, increased incomes and promote economic development, there is the need for universities to make entrepreneurship a compulsory course for all undergraduate students to simulate their drive towards entrepreneurship.

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