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# Moderating Effect of Learning Context on Pedagogy and Entrepreneurial Self-efficacy of Students in Universities by Isaac Muiruri Gachanja<sup>1</sup>, Irura Nganga (PhD)<sup>2</sup> and Maina (PhD)<sup>3</sup>

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## Abstract

*The proliferation of private universities in Africa calls for an investigation on the suitability of the prevailing learning context to determine their effectiveness in promoting sustainable development. The study investigated how conducive student-centered learning environment, contemporary issues, availability of incubators, adequate learning facilities and suitable guest speakers contributed to development of Entrepreneurial Self-Efficacy (ESE). Target population comprised of 147 fourth year entrepreneurship students drawn from both public and private universities in Nairobi and Kiambu Counties of which 109 were sampled. A Likert-type self-administered, structured questionnaire was used to collect data. The study employed a survey design. Multinomial logistic regression analysed respondents' perception of learning context on their ESE. Moderated multiple regression was used to test the hypothesis about the moderating effect of learning context on entrepreneurship education pedagogy and ESE. Comparative analysis of the influence of learning context on ESE between public and private universities was then done. The findings revealed that student-centered learning environment, contemporary issues and adequate learning facilities generated positive and significant effects on the ESE. The appropriate learning context should therefore be put in place to develop suitable skills, knowledge, traits, attitude and competence not only for employability, but also for enhancing graduates to engage in entrepreneurial activities and develop entrepreneurship culture. This will promote creativity and innovation which leads to job creation, engagement of graduates in productive activities, competitive advantage and sustainable economic growth and development. However, the effect of incubators and guest speakers were not found to be statistically significant. The study concluded that the appropriate learning context contributed to development of ESE. It is recommended that universities offering entrepreneurship education should provide adequate resources and identify the right mentors for students. Further research should be carried out to determine how incubators influence ESE and the suitability of role models and industry players in mentorship.*

Key words: Entrepreneurship Education, Learning context, Entrepreneurship Self-Efficacy and sustainable development.

## Introduction

Entrepreneurship Education (EE) is a relatively recent academic discipline that started in Japan at about 1938 (McMullan and Long, 1987). Harvard Business School was the first to introduce it as a course in entrepreneurship in 1947 and later at New York University in 1953 (Brockhaus 2001). However, the real emergence of EE around the world took place in the 1980's (Katz, 2003). It has

now been adopted in several parts of the world in developed countries, newly industrialized countries and developing nations. In the United States of America EE is a dynamic field that is rapidly growing and is most recognized than in any other part of the world (Nafukho and Muyia, 2010). Nevertheless, governments around the world are now focusing on creation of cultures that would promote entrepreneurship.

The EE programs are also gaining acceptance in most African business countries to the extent that in some countries like Uganda, it is offered at the secondary school level. Nigeria started offering EE at University level in 2009 as an international exercise that involved collaborations between some of the country's Universities and universities in the United Kingdom (Sagagi, 2011). The EE programs in Africa are aimed at developing entrepreneurial skills, enterprising behavior and competency as a tool to fight unemployment, expand employment opportunities, and promote economic growth and development.

### **Development of Entrepreneurship Education Pedagogy in Kenya**

Kenya was among the first countries in Africa to introduce aspects of entrepreneurship education in its education and training systems, and significant efforts have been put on this end. The development of EE in Kenya is traced from the International Labor Organization (1972) report and other subsequent ones such as the Mackay (1981) and Kamunge (1988). The country currently has the majority of its 68 universities (31 public and 37 private universities) providing EE (Commission of University Education, 2015). All Universities in Kenya offer business studies programs within schools, departments or faculties with most of them offering entrepreneurship education although not mainstreamed throughout the universities (Wheeler, February 2013).

The government of Kenya has also rolled up several programs like the youth enterprise fund, Uwezo fund and 30% government tender to special groups such as the youth to facilitate them to engage in entrepreneurship. It is therefore expected that graduates in the country would portray high entrepreneurship self-efficacy that would raise their confidence and entrepreneurial competence that would lead them to entrepreneurship and propel the country to greater heights of economic growth and development. However, the Global Entrepreneurship Development Index (GEDI) reports for the last two years shows that the country global position has declined while the global competitive index for the same period has improved. It could be expected that the graduates would take advantage of the improving business environment and be at the forefront in engaging in entrepreneurial activities.

The proliferation of entrepreneurship education in Kenya universities calls for a conceptual and theoretical understanding of the content and training approaches being adopted in these institutions. Research has shown that what is taught is not designed in the best way to teach entrepreneurship but rather to teach about entrepreneurship (Gerba, 2012). The World Bank (2014), estimates that each year Kenya releases about 800,000 youth into the job market with only about 6% being absorbed gainfully in the labour market. The report further indicates that Kenya has been adding jobs at an annual rate of 2.4 %, which is below the average of 6.3% for countries with a similar income levels. It would be expected that a critical number of graduates not absorbed in the labour market, who have undertaken entrepreneurship education would engage themselves in creating new entrepreneurial ventures to earn a living and create more job opportunities. However, there are few graduates taking up the opportunity to be entrepreneurs (Soon, 2015) yet Frosch (2011), posit that youth is capable of triggering innovation processes. Despite the fact that Kenya

government has put several efforts to finance the youth such as the youth enterprise fund and Uwezo fund, facilitate the youth in doing business with the government and improvement in ease of doing business (World Bank 2015), Kenya ranking in Global Entrepreneurship Index declined by four positions.

## Challenges facing Entrepreneurship Education Pedagogy

There are various challenges facing Entrepreneurship Education Pedagogy (EEP). Qunlian (2011), observed that EE curriculums are still unreasonable and teaching methods are inflexible and EEP lack certain theoretical knowledge and entrepreneurship practice experience. Despite the efforts put in research in the area of Entrepreneurship Education Pedagogy (EEP), Bwisa (2010), argues that there is need to build effective entrepreneurship education by investigating what should be taught and how it should be taught. Furthermore, Namusonge (2013), found that provision of relevant training approach is paramount in developing initiatives that create entrepreneurs who can provide solutions to employment.

## The Learning Context

Training environment that possess the right contextual factors can foster ESE. Previous studies have looked at the economic, political, and social-cultural factors that are likely to make individuals more successful at starting new ventures (Pittaway and Cope 2009). These factors influence the setting up of a conducive student centered environment, learning facilities and enabling resources such as incubators. Conducive learning environment would encourage interrogation of contemporary issues and invitation of guest speakers to articulate issues in environmental dynamism which is characterised by rapid change. The ability to identify these opportunities can lead to high ESE.

## Hypothesis Development

There is a consensus among the scholars on the need to investigate how entrepreneurship content should be delivered, but it is also paramount to examine how learning context contribute towards the development of ESE. This calls for an investigation of the role of learning context in closing the gaps. This work was therefore intended to examine the moderating role of Learning Context (LC) on EEP and ESE among final year students in Kenya universities. The study therefore hypothesizes that; *Learning Context has no significant influence on entrepreneurship education pedagogy and do not influence significantly ESE of final year students in Kenya universities.*

## Methodology

The study employed correlational design. The target population comprised of 147 fourth year entrepreneurship students from public and private universities in Nairobi and Kiambu Counties. A sample size of 109 was determined by application of Yamane (1967) formula. A Likert-type self-administered, structured questionnaire was used to collect data. Multinomial logistic regression analysed respondents' perception of LC on their ESE.

## Model Specification and Testing

The model that was used to fit the moderating effect of learning context on entrepreneurship education pedagogy and entrepreneurship self-efficacy took the form of;  $Logit[p] = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3$  where,  $p = \frac{\exp(\beta_0 + \beta_1 X_1)}{1 + \exp(\beta_0 + \beta_1 X_1)}$  was the estimated probability that ESE = 1 at a fixed setting of EEP.  $\beta_0$  Was the ESE without LC.  $\beta_1 X_1$  Was the effect of EEP on ESE,  $\beta_2 X_2$  was the effect of LC on ESE,  $\beta_3 X_3$  was the interaction of using EEP and LC,  $\exp(\beta_1)$  was the odds ratio for EEP,  $\exp(\beta_2)$  was the odds ratio for using LC relative to not using it and  $\exp(\beta_3)$  was the odds ratio for using EEP and LC.

### Findings

Most of the respondent's age group was between 21-25 years which constituted 68.3%. The age group of the majority respondents is of young adults and if they are equipped with the right knowledge of entrepreneurship, their attitudes towards entrepreneurial activities is likely to be influence positively. The respondents constituted 45.2% of male and 54.8% female. More female had enrolled in entrepreneurship education than male. This implies that females had stronger interest in acquiring entrepreneurship knowledge than their male counterparts which is likely to enhance their confidence and capabilities. The majority of the respondents which constituted 65.4% had less than one year experience in entrepreneurship. This shows that majority of the respondents had less than one year experience in entrepreneurship. The knowledge acquired in EE is therefore likely to shape their altitude towards entrepreneurship.

## The moderating effect of learning context between entrepreneurship education pedagogy and entrepreneurship self-efficacy

The antecedents of Entrepreneurship Education Pedagogy (EEP) in this study were Team-Based Learning (TBL), Project-Based Learning (PBL) and Blended Learning (BL). The EEP was measured by aggregating the total score of TPL, PBL and BL. The parameters for measuring ESE in this study were entrepreneurial skills, knowledge, traits, attitude and competence.

The parameters for measuring for LC were student-centered learning environment, contemporary issues, guest speakers, availability of incubators and adequate learning facilities. Majority of the respondents which were 76 representing 73.1% affirmed that there was conducive student-centered learning environment. The majority respondents which were 81 representing 77.9% confirmed that Contemporary issues featured in the content of EE. However, the respondents were indifferent that guest speakers were invited to talk to them with 50% asserting their presence and 50% stating otherwise. Majority respondents which were 81 representing 77.9% affirmed that resources such as incubators were not available in the learning process. However, 78 respondents representing 75.0% confirmed that learning facilities were available in the learning process.

The majority respondents which were 72 representing 69.2 agreed that conducive student-centered learning environment was created, 77 respondents representing 74% agreed that

contemporary issues were well addressed and 69 respondents representing 66.4% also agreed that adequate learning facilities were available. However, majority respondents which were 71 representing 76.9% disagreed that incubators facilitated production of pro types and 57 respondents representing 54.8% also disagreed that suitable guest speakers with entrepreneurial experiences were invited to talk with students.

The measure for learning context was delivered from aggregating the total score of each of the respondent in the Likert scale. This was done by transforming the respondents' score, summation of the scores and then labeling the target variable as LC.

The moderating effect of LC was established by analysing the relationship between Entrepreneurship Education Pedagogy (EEP) and ESE without LC and then with LC to find out whether the correlation differed to confirm the predicted moderated variable. The relationship between EEP on ESE without LC is shown in table 1.

Table 1. Relationship between EEP and ESE without LC

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	377.036	69.708	13	.000
EEP	384.925	77.598	13	.000

The P value for EEP without LC is 0.000 which is less than 0.005. The implication was to reject the null hypothesis. It means that there is a significant influence of EEP on ESE. It can therefore be concluded that EEP significantly influence ESE.

#### Relationship between learning context and entrepreneurial self-efficacy

The relationship between the various measures of LC and ESE was derived after regression of the two variables in a multinomial logistic regression. This was done at 5% level of significance are as shown in table 2.

Table 2: Relationship between LC and ESE

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	377.027	58.776	13	.000
Student-centered learning	350.601	32.349	13	.002
Contemporary issues	356.392	38.141	13	.000
Guest speakers	344.630	26.378	13	.015
Availability of incubators	335.979	17.728	13	.168
Learning facilities	356.381	38.129	13	.000

The P value for student-centered learning was 0.002 and is less than 0.05. The null hypothesis is therefore rejected. This means that there is significant influence of student-centered learning on ESE. It can therefore be concluded that student-centered learning significantly influence ESE. The

P value for contemporary issues was 0.000. The null hypothesis was rejected because the value was less than 0.005. It implies that there is a significant influence of contemporary issues on ESE. It can therefore be concluded that contemporary issues significantly influence ESE.

The P value for guest speakers was 0.015. The value is less than 0.05 and this leads to rejection of the null hypothesis. The implication is that there is a significant influence of guest speakers on ESE. It can therefore be concluded that guest speakers significantly influence ESE.

The P value for availability of incubators was 0.168. In this case, this value is greater than 0.05 and therefore the null hypothesis was accepted. This means that there is no significant influence of availability of incubators on ESE. It can therefore be concluded that availability of incubators does not significantly influence ESE.

The P value for learning facilities is 0.000 and is less than 0.005. This led to rejection of the null hypothesis which implies that there is a significant influence of learning facilities on ESE. It can therefore be concluded that learning facilities significantly influence ESE. The combined effect of LC was derived from the total parameters score in the variable regressed against the total score for ESE. Table 2 shows the results of the combined effect.

Table 2: Combined measure of LC and ESE

Effect	Model Fitting Criteria		Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model		Chi-Square	df	Sig.
Intercept	282.124		54.753	13	.000
LC	289.772		62.401	13	.000

The overall p value for LC is 0.000. Since the value is less than 0.05, the null hypothesis was rejected. This means that there is a significant influence of LC on ESE. It can therefore be concluded that there is a positive relationship between LC and ESE. Hypothesis four is therefore rejected and the alternative hypothesis accepted.

The moderating effect of LC was established by multiplying the EEP by LC to determine the coefficient of Moderated Multiple Regression (MMR). The relationship between EEP and ESE with LC is shown in table 3.

Table 3: Relationship between EEP and ESE with LC

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	8.374	1.956		4.281	.000
MMR	.004	.001	.396	2.754	.007
EEP	.127	.055	.335	2.330	.022

The regression coefficient of EEP without moderating variable is 0.127 while with LC is 0.004. This shows that the correlation differs in the two scenarios which confirm the moderating effects of LC. The relationship between EEP, LC and ESE can therefore be expressed as  $Y_i = 8.374 + 0.127X_{i1} + 0.004X_{i2} + \epsilon_i$ , where Y is ESE,  $X_1$  is EEP without LC,  $X_2$  is the EEP

with LC,  $\epsilon_i$  is the error term and  $i$  represent the five parameters that measured each of the variable.

The p value of EEP was 0.022. The null hypothesis was rejected because the value was less than 0.05. It implies that there is a significant influence of EEP on ESE. It can therefore be concluded that there is a positive relationship between EEP and ESE. The p value for moderating variable using the moderated multiple regression method is 0.007. The value was less than 0.05 and led to the rejected of null hypothesis. It means that there is a significant influence of LC on ESE. It can therefore be concluded that LC moderates the influence of EEP on ESE.

## Discussion

The study found that Student-centered learning, contemporary issues, learning facilities and guest speakers moderated the influence of EEP on ESE and have a significant influence on ESE of the students. This concurs with Pittaway and Cope (2009), who found that LC is likely to encourage more individuals to start new ventures. The findings are similar to those of Shane and Venkataraman (2000), and are also in tandem with Hegarty (2006) who found that guest speakers provides a chance to engage, interact and share experiences which enhances knowledge and skills that have a bearing on ESE. Suitable guest speakers can provide mentorship to students to engage actively in entrepreneurship. The right learning environment coupled with addressing emerging issues and suitable guest speakers therefore provides an impetus for engaging in entrepreneurship.

However, the study found that availability of incubators does not have a significant influence on ESE of the students. The findings concurs with other researchers such as Chan and Lau (2005), who found out incubators are only effective when sharing technical resources that are highly specialized in a certain technology field. Potential entrepreneurs have diverse imaginations and ideas which can not be constricted to one or a few economic sector. It is therefore difficult to incubate the diverse ideals and hence there is no positive relationship between availability of incubators and ESE of the students.

## Conclusion

Student-centered learning, contemporary issues, learning facilities and guest speakers have a significant influence on ESE of final year students in Kenya universities while availability of incubators does not have a significant influence on ESE of the students. The learning context however has a significant influence on ESE of the students. Student-centered learning, contemporary issues, learning facilities and guest speakers should therefore be encouraged because they moderate the influence of EEP on ESE. These aspects of learning context should be improved to provide a suitable environment which nurtures potential entrepreneurs into practicing entrepreneurs and also improves the employability of graduates.

The study recommends that further research should be carried out to determine how incubators influence ESE. This is because most of the universities from which the respondents were drawn from did not have the incubators and therefore it was not possible to determine how they influence ESE. The research should be carried out in institutions of higher learning with incubators to

determine their effectiveness and cost benefit analysis. The direction of future studies should focus on suitability of quest speakers invited to talk to students. This is because most students did not find value in the interaction with them whereas those that added value contributed to development of entrepreneurial efficacy among students.

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