

Entrepreneurship Education's Influence on Learner's Entrepreneurship Intention in South African Schools

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ABSTRACT

Youth unemployment remains a South African problem and a global concern. Entrepreneurial activity enables people to identify opportunities and start new business ventures helping in addressing Youth unemployment. This study focuses on assessing the influence of entrepreneurship education on the learners' intention towards entrepreneurship careers in high schools. A quantitative study was conducted consisting of 240 grade 12 learners with entrepreneurship education from the three townships in the City of Tshwane namely Mamelodi, Atteridgeville and Soshanguve. A structured close-ended questionnaire was used to collect data. Data was analysed using descriptive and inferential statistics using SPSS software. Findings have proven a relationship between theoretical education and experiential learning with learners' intention towards entrepreneurship, with experiential learning significantly influencing the development of entrepreneurship intention in learners. Hence, to improve effectiveness of entrepreneurship education in high school learners, there should be emphasis on experiential learning. Study further indicated that entrepreneurship as a subject has an influence on the choice of entrepreneurship as a career. It is for this reason that learners should interaction with business people globally in order to gain exposure to people who have succeeded by taking entrepreneurship as a career.

Key terms: *Entrepreneurship Education, Intention, theoretical education and experiential learning*

INTRODUCTION AND BACKGROUND

In Sub-Saharan Africa the youth unemployment rate stands at 42% and in South Africa the number stands at 54.8% (Statistics South Africa, 2019). In Gauteng province, one of the economic hubs in South Africa, 28.9% youth are unemployed, and in the City of Tshwane the number stands at 28% (Statistics South Africa, 2019). Youth are persons between the ages of 14 and 35 years of age (Statistics South Africa, 2018). These statistics underpins the challenges of youth unemployment, specifically in South Africa. The South African governance has identified youth entrepreneurship as one of the key pillars to economic growth and job creation (National Youth Development Agency, 2015). This is evident through Small Enterprise Finance Agency (Sefa) a state-owned company (SOC) contributing funding over a period of five years to Small, Medium and Micro Enterprises (SMMEs) and Co-operatives, and contributed R943 million to young entrepreneurs and R1,7 billion to women entrepreneurs (Sefa, 2018).

Despite the interventions from government, it is concerning that the total entrepreneurship activity (TEA) across the Sub-Saharan African region remains low (Fatoki & Chindoga, 2011). Carvalho (2015:547) defines TEA as the rate of individuals in the working age population who are actively involved in business start-ups, either in the phase of starting a new business, or owner-manager of new business. The average Sub-Saharan regional TEA was 26% in 2014 (Herrington, Kew & Mwanga, 2017). South Africa's early-stage TEA for 2017 is still low at 11% which is a slight increase from 6.9% in 2016 (Bosma & Kelley, 2019).

According to Global Business School Network (2013), poor education can reduce the employability of people, or weaken their entrepreneurship abilities. research done to identify the worsening trend of youth unemployment as well as identifying entrepreneurship education as a possible solution for this problem (Chimucheka, 2014; Radipere, 2012; Fatoki & Chindoga, 2011; Autio, 2007; Chowdhury, 2007). Research done in the Netherlands, Lithuania and Finland on the effectiveness of entrepreneurship education underpins the importance of entrepreneurship education (EACEA, 2016). Entrepreneurship education is regarded as a potential catalyst for curbing unemployment, especially among the youth population (Chowdhury, 2007; Fatoki & Chindoga, 2011; Radipere, 2012). It stimulates entrepreneurship activity (Pretorius, 2008), enabling people to identify opportunities and start new business ventures (Eurochambres, 2015). The aim of this paper is to assess the influence of entrepreneurship education on the learners' intention towards entrepreneurship careers in high schools.

PROBLEM DESCRIPTION AND PRIMARY OBJECTIVE

Entrepreneurship education remains highly ranked on policy agendas of South Africa and the rest of the world (Chimucheka, 2014; Radipere, 2012; Fatoki & Chindoga, 2011; Autio, 2007; Chowdhury, 2007). However, the effects emanating from entrepreneurship education are still poorly understood, despite the wide promotion of entrepreneurship education (Nchu, Tengeh & Hassan 2015). Furthermore, there are still doubts on whether entrepreneurship education influences the intention towards entrepreneurship careers or contributes significantly to SMME success (Potishuk & Kratzer, 2017). Little research is available to assess influence of entrepreneurship education on the intention towards entrepreneurship careers (Chimucheka, 2014). This study aimed to assess the influence of entrepreneurship education on the learners' intention to have entrepreneurship careers in South African high school learners.

LITERATURE OVERVIEW AND HYPOTHESES DEVELOPMENT

Definition of Entrepreneurship Education

Entrepreneurship education is viewed as a means of developing entrepreneurship knowledge, skills and attitudes in learners (Henry, Hill & Leitch, 2005; Hytti, Stenholm & Heinonen, 2010; McKenzie & Woodruff, 2012). Entrepreneurship education is further classified under two distinct categories which are entrepreneurship training programmes and academic entrepreneurship education programmes (Valerio, Parton, & Robb, 2014).

Entrepreneurship training programmes build knowledge and skills in preparation for starting a business (European Commission, 2012). The programmes on entrepreneurship training are mostly practical, targeting potential entrepreneurs and entrepreneurs who already run their own businesses. On the other hand, academic entrepreneurship programmes, learners are linked through a research centre, whilst utilising knowledge extracted from their research to set up business ventures (Miranda, Chamorro-Mera, & Rubio 2017). In other words, academic entrepreneurship programmes are further characterised as a process of transforming knowledge, technology and its commercialisation into real commercial ventures (Lewandowski, 2013).

These programmes are mostly theoretical, concentrating on the construction of knowledge and skills for entrepreneurship, and they are normally targeted at high school and tertiary students (European Commission, 2014). For that reason, this study defines entrepreneurship education as the development of knowledge and skills required to foster entrepreneurship mindsets and attitudes, covering a range of aspects, such as idea generation, start-up, growth and innovation to reality (Irimie, Băleanu & Onică, 2008). Therefore, entrepreneurship education is seen to encompass those aspects that focus on values and beliefs which play a critical role in shaping one's attitude towards entrepreneurship, thus triggering entrepreneurship behaviour (Fayolle, Gailly, & Lassas-Clerc, 2006:702; Liñán, Fernández & Romero, 2013; Utami, 2017). Giving raise to the debate around entrepreneurship education influencing learners' attitude and behaviour, resulting in entrepreneurship attitude and behaviour (Dabale & Thomas, 2014).

The Influence of Entrepreneurship Education on Attitude and Behaviour

Entrepreneurship attitude in this context implies having an appreciation of entrepreneurship education as an important means of developing entrepreneurship skills in a learner (Gerba, 2012). Furthermore, entrepreneurship attitudes can be measured in terms of behavioural attitude (Pulka, Rikwentishe and Ibrhain, 2014). Behavioural attitude is viewed as the readiness to react and appreciate certain objects in the environment (Efendi & Makhfudli, 2009: 103). Resulting with the learner's intention of starting a business rather than working for someone else (Von Graevenitz et al., 2010). The intention of starting a business is regarded as a planned behaviour (Wang, Lu & Millington, 2011).

The theory of planned behaviour

Planned behaviour is a consequence of the theory of 'Reasoned Action' which states that attitude towards the behaviour and subjective norms is as a result of behavioural intentions (Stimpson, Huefner & Hunt, 1991:13). Central to the theory of planned behaviour is the learner's intention to accomplish a specified behaviour (Heuer & Kolvereid, 2014). Therefore, planned behaviour is not predicted by attitudes, beliefs, personality or demographics but by the intentions toward the behaviour (Fayolle & Gailly, 2015). These intentions serve to channel beliefs and perceptions into the intention to act, then to the action itself (Koe, 2016).

Learners' intentions are shaped by the learners' attitudes towards behaviour (Ajzen, 2011). Furthermore, the attitudes of learners to become future entrepreneurs is triggered by exposure to entrepreneurship education (Dabale & Thomas, 2014). Therefore, a positive attitude towards entrepreneurship education, indicates that learners' views entrepreneurship education as an attempt to foster entrepreneurship awareness and entrepreneurship as a career option resulting in entrepreneurship intention (Mapfaira & Setibi, 2014).

Entrepreneurship Intention

The impact of entrepreneurship intention is predominant at the start of a business, due to circumstances around the business often being exclusive in their volatility, complexity and changing requirements (Von Graevenitz, Harhoff & Weber, 2010; Omerzel & Kušce, 2013). Entrepreneurship intention is stimulated by the development of entrepreneurship attributes, which in turn, determine the business setting (such as the form and the direction) of an emerging business during its inception (Mellor, Coulton, Chick, Bifulco, Mellor, & Fisher, 2009; Sánchez, 2013; Caliendo, Fossen & Kritikos, 2014).

Moreover, entrepreneurship intention is a preceding and determinant element towards entrepreneurship behaviour (Fayolle & DeGeorge 2006; Koe, 2016). The existence of entrepreneurship intention is seen as a reliable predictor of entrepreneurship behaviour (Sánchez, 2013). A learners' likelihood to become an entrepreneur may not find expression, unless they have intentions of becoming entrepreneurs (Liñán & Fayolle, 2015). This when entrepreneurship education programmes construct learners' intention to start a new business venture (Maina, 2011: 448; Müller, 2011). However, the ability of entrepreneurship education programmes to provoke positive outcomes for new business ventures is highly dependent on the quality and appropriateness of the programme delivered (OECD, 2009). Likewise, a variety of learning activities such as experiential learning in entrepreneurship education have been designed to encourage the formation of business ventures (Syden & Gordon, 2014). The experiential learning involves the process of knowledge creation through transformation of experience (Kolb, 2005). The process attempts to engage learners in more active learning such presentations and handouts to video and case-study based learning with group discussion and role-plays (Lafontaine & Shaw, 2014).

Furthermore, experiential learning in entrepreneurship education stimulates learners' capabilities to realize socio-economic hitches as trials, propelling learners to prompt entrepreneurial actions validating the intentions for a career in entrepreneurship (Lafontaine & Shaw, 2014). This is due to the importance of learning by association that incorporates experimentation in entrepreneurship (Syden & Gordon, 2014), hence, the argument about entrepreneurship intention being influenced by the type of curriculum and the learners' choice of subjects in high school level (Heuer & Kolvereid, 2014).

Influence of entrepreneurship education on entrepreneurship intention

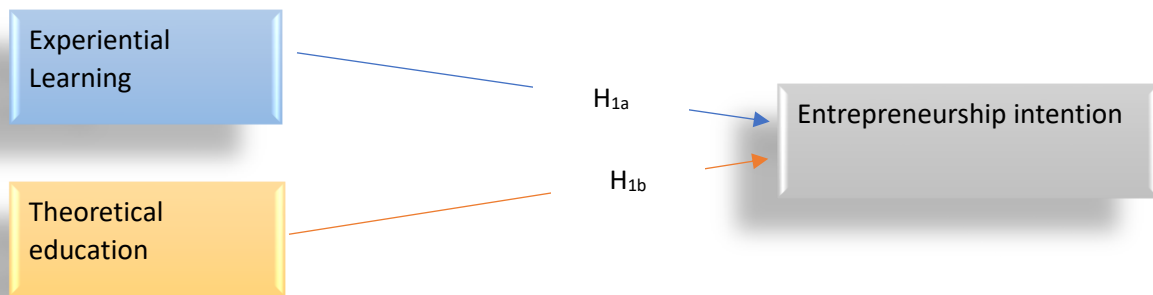
A learners' identification of entrepreneurship prospects is dependent on the information they have already learnt (Heuer & Kolvereid, 2014). Hence stimulating learners' entrepreneurship intentions and challenging learners to establish new businesses becomes paramount (Rocha, Carneiro & Varum, 2015). This suggests that entrepreneurship intention is not inherited, but established through entrepreneurship education (Wang, Lu & Millington, 2011). The notion is supported by public policy makers and government bodies around the world reinforcing entrepreneurship education through learning activities to encourage entrepreneurship intention and a more entrepreneurship society (Fayolle & Linan, 2014; Mahmoud et al., 2015).

Learners are increasingly becoming the targets of entrepreneurship and policy initiatives aimed at entrepreneurship education in schools (Ghina, Simatupang & Gustomo, 2014), and thus the need for effective measurement of the impact of entrepreneurship education programmes. In general, researchers agree that entrepreneurship education produces entrepreneurship desire with measurable outcomes (Ratten, 2014; Herrington & Kew, 2017; Nasr & Boujelbene, 2014; Gedeon, 2017). However, little research has been conducted to assess the influence of entrepreneurship education has on high school learners.

Conceptual Model and Hypotheses of the Study

This model comprises of two variables namely, experiential learning and theoretical education. Both these variables correlation is tested against entrepreneurship knowledge, skills and intention. Figure 2.1 demonstrate hypothesis of this study.

Figure 1: Conceptual model and hypotheses of the study



Source: Researcher's own construction

RESEARCH METHODOLOGY

In this study, the quantitative research approach was selected as it was effective in answering the research objective which is to assess the effectiveness of entrepreneurship education in high school learners. This approach is based on a post-positivist paradigm. The hypotheses were developed then tested. to assess the effectiveness of entrepreneurship education.

The population of study was grade 12 learners from 15 high schools from townships of which seven were in Mamelodi, five in Atteridgeville and three in Soshanguve with entrepreneurship education as part of their syllabus. Resulting in a total population of 600 learners.

Measuring instrument and data collection

Questionnaires were used to collect the data. A Likert scale technique was used in designing the questionnaires.

Data analyses

The data collected in this study was analysed using descriptive and inferential statistics. The inferential statistics that were used to test the hypotheses were Pearson correlation and linear regression. Pearson correlation tested the significance, direction and strength of the relationship between the constructs of entrepreneurship education and entrepreneurship intention. The strength of the relationship was guided by the ranges as proposed by Pallant (2010), which are; 0 – 0.09 (no relationship), 0,1 – 0.29 (weak relationship), 0,3 – 0,49 (medium relationship), $\geq 0,5$ (strong relationship). For the constructs that have a significant relationship, a linear regression

was conducted to understand the extent that o entrepreneurship education can predict entrepreneurship intention.

EMPIRICAL RESULTS

A total of 240 questionnaires were distributed to a total of 15 high schools across the city of Tshwane in the townships of Mamelodi, Attrigdeville and Soshanguve. A total of 137 responses was received, equating to a response rate of 57% ($137/240 \times 100$) with the most respondents being female; Mamelodi township had the highest responses of the three townships with a response rate of 68.5%.

Descriptive statistics and correlation coefficients

Table 6.1 shows the results of entrepreneurship intention with its six variables that were developed to profile it.

The results show an overall median of 4 except for VAR1 showing a median value of 3. The mean values ranged from a high of 4.02 to a low of 2.87. The highest mean value was 4.02 (SD= 0.854) for variable “I intend to start a new business at some point in the future”, followed by mean 3.89 (SD= 0.862) for variable “My exposure to Economic Management and science as a subject has resulted in my intention to start a business”, and variable “I have an intention to further my studies in entrepreneurship after high school” with a mean score of 3.85 (SD= 1.000). Furthermore, the lowest mean value was for variable “I will start my own business after completing high school” with a mean score of 2.87 (SD= 1.229) and variable “I have no intention to work for someone else after completing school but to work for myself” with a mean value of 3.77 (SD= 0.945). meanwhile variable “I will start my own business after completing my tertiary education. E.g. 1 degree” showed a mean score of 3.84 (SD= 0.883).

The range of skewness was from 0.024 to -1.147 with a standard error of 0.210, and the range for kurtosis was 1.863 to -0.977 with a standard error of 0.417. As this data was within the values of ± 2 , for both the skewness and kurtosis, it can thus be regarded as being normally distributed.

Table 1: Descriptive statistics of entrepreneurship intention.

	Mean	Median	Std. Deviation	Skewness	Kurtosis
I will start my own business after completing high school.	2.87	3.00	1.229	0.024	-0.977
I will start my own business after completing my tertiary education. E.g. 1 degree.	3.84	4.00	0.883	-1.083	1.515
My exposure to Economic Management and science as a subject has resulted in my intention to start a business.	3.89	4.00	0.862	-0.890	1.143
I have no intention to work for someone else after completing school but to work for myself.	3.77	4.00	0.945	-0.721	0.402
I intend to start a new business at some point in the future.	4.02	4.00	0.854	-1.147	1.863
I have an intention to further my studies in entrepreneurship after high school.	3.85	4.00	1.000	-1.023	0.912

Std error of skewness =0.210; Std error of kurtosis =0.417

Source: Researcher's own construction.

Simple regression analysis of entrepreneurship intention on theoretical education and experiential learning

The model summary in Table 2 shows a R-square of .106 and adjusted R-square of .091, with the standard error for the estimate of .63148. Furthermore, the Durbin-Watson was 1.817. The results show a low R-squared and adjusted R-squared, showing low significant variables. This could be due to unpredictability of people. ANOVA test is done to further analyse the results. Table 3 presents the ANOVA results for theoretical education, experiential learning and entrepreneurship intention.

Table 2: Regression theoretical education, experiential learning and entrepreneurship intention.

Model Summary ^b					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.325 ^a	.106	.091	.63148	1.817

a. Predictors: (Constant), EDU4, EDU3

b. Dependent Variable: INTENTION

Source: Researcher's own construction.

Table 3: ANOVA results for theoretical education, experiential learning and entrepreneurship intention.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.658	2	2.829	7.094	.001 ^b
	Residual	47.852	120	.399		
	Total	53.509	122			

a. Dependent Variable: INTENT

b. Predictors: (Constant), EDU4, EDU3

Table 4: Correlation results

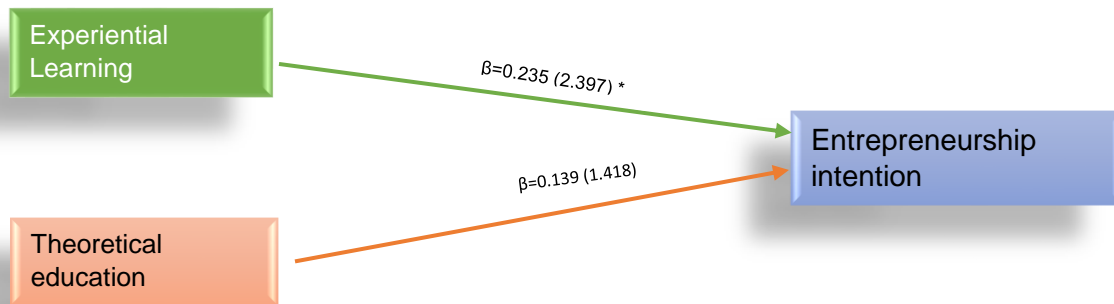
Coefficients ^a								
Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.370	.363		6.526	.000		
	EDU3	.215	.090	.235	2.397	.018	.774	1.291
	EDU4	.131	.093	.139	1.418	.159	.774	1.291

a. Dependent Variable: INTENT

Source: Researcher's own construction

The dimensions results illustrated in Table 4 shows a significant relationship between intention and experiential learning (EDU3), with an unstandardized coefficient, $\beta = 0.215$, $p = .018$. However, there was no significant relationship between theoretical education (EDU4) and intention, $\beta = 0.131$, $p = <.159$. The null hypothesis which states that the entrepreneurship theoretical education and experiential learning in high schools has an influence on the learners' intention towards entrepreneurship careers is accepted. Especially with a significant positive influence shown between experiential learning and intention. The outcome shows that experiential learning has a significant influence on the development of entrepreneurship intention, as shown by the standardized Beta, and t-statistics in parenthesis in figure 2 below.

Figure 2: Revised model of entrepreneurship education.



* - $p < .05$ ** - $p < .01$ *** - $p < .001$

Source: Researcher's own construction

The results of the current study revealed high levels of entrepreneurship intention (Mean = 3.68, SD = 0.6699). This means that in general, the respondents of this study agreed with the statements posed to them about the entrepreneurship intention. The one sample t-test from the findings confirmed the entrepreneurship intention, with the entrepreneurship intention significantly higher than the hypothesized mean of 3.4 (positive), $t(132) = 4.893$, $p < .05$. The results of the Pearson correlation have revealed that both the theoretical education as well as experimental learning have a positive relationship with entrepreneurship intention among the high school learners. Despite this, their overall prediction of the intention was only 10.6%, with the experimental learning the only significant predictor of the entrepreneurship intention ($\beta = 0.235$, $p < 0.05$). This means that in general, the respondents of this study agreed with the statements

posed to them about the entrepreneurship intention. In particular, there was agreement that their exposure to EMS as a subject has resulted in their intention to start a business. Furthermore, the results of the Pearson correlation have revealed that both the theoretical education as well as experimental learning have a positive relationship with internship intention among the high school learners.

Discussion of the Findings

Despite the numerous initiatives to enhance entrepreneurship education in high schools, youth entrepreneurship adoption remains low (Mahadea, Ramroop and Zewotir, 2011; Chimucheka, 2014 and FNB, 2016). This study aims to assess the effectiveness of the current entrepreneurship education in South African high schools. The research findings highlight weaknesses and gaps in how entrepreneurship education is currently offered in South African high schools. This is highlighted by the lack of exposure of learners to experimental learning which has a significant influence on learners' entrepreneurship intention.

Entrepreneurship education has been introduced in South Africa since 2005, yet little attention has been given to the assessment of entrepreneurship education's effectiveness (Chimucheka, 2014). The study assessed the effectiveness of theoretical entrepreneurship education and experiential learning on entrepreneurship intention. The finding in this study illustrates that experimental learning had significant influence on learners' entrepreneurship behavior. This means that learners' identification of entrepreneurship prospects is dependent on the information they have already learned (Heuer & Kolvereid, 2014). As a result, learners will pursue and exploit business opportunities because of entrepreneurship intention (Fossen & Kritikos, 2014).

LIMITATIONS, CONTRIBUTIONS AND CONCLUSIONS

Limitations

There are some limitations of the current study. Firstly, there was no analysis of the curricular of entrepreneurship education which can further explain some of the findings such as the predicting effects of entrepreneurship education. The study lacks generalizability as it used a non-probability sampling method, of judgmental sampling. However, the total number of respondents are statistically viable to draw conclusions. Thirdly, there could have been certain generic factors

which could have influenced how participants could have responded at that particular point in time which might have been different had they been surveyed at a different time. For instance, if there was entrepreneurship practical or experimental training at that time that might have caused them to see it in a much more positive light compared to if the circumstance might have changed. This is possible when it comes to cross-sectional studies unlike the longitudinal study which is done over a long period of time. So, this study took that into consideration when interpreting the results. Lastly, the study only focused on learners who had EMS and not all the students, other learners fell out the scope of study.

Implications

Through assessing the correlation between theoretical entrepreneurship education and experiential learning with entrepreneurship knowledge, skills and intention, this study established that an introduction of an improved policy to support entrepreneurship, through which education system working along with Government, academics and practitioners focusing on the introduction of a transformational shift in South Africa's entrepreneurship infrastructure over the short, medium and long terms. Furthermore, entrepreneurship education was found to be the main influencer of entrepreneurship intention amongst learners. Therefore, the introduction of a properly structured experiential learning, where learners would put their theoretical learning into practice in highly recommended.

Conclusion

The study has shown that entrepreneurship as a subject is being taught at schools through Economic Management Sciences subjects. This entrepreneurship education is done at schools in the form of theoretical and experiential learning. Overall, the experiential learning seems to have the highest levels of positive influence on intention. Demonstrating the effectiveness of entrepreneurship education in high school learners in South Africa.

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