

Gordon Institute of Business Science

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Creating entrepreneurs in South Africa through education

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Abstract

South African total early stage entrepreneurial activity rates declined by 34% in 2014 with a lack of education viewed as one of the key factors attributing to the decline. A lack of education suggests that education either creates entrepreneurs or enables entrepreneurship in South Africa. The literature suggests there are positive and negative links between education and entrepreneurship with no evidence of causation. This research study therefore seeks to establish if education in South Africa is an enabler or a creator of entrepreneurship in an effort to improve early stage entrepreneurial activity rates in South Africa.

Qualitative research was conducted via semi structured interviews to 13 Johannesburg based South African entrepreneurs who represented various industries and had acquired a combination of formal, informal and non formal education in South Africa. The non probability sampling method was used, purposive and snowball in particular.

The research study found that education, more specifically; formal education, can be a deterrent as well as an enabler of entrepreneurship in South Africa. It was clear that formal education does not create entrepreneurs in South Africa. Informal education was found to be an important method of learning to become an entrepreneur suggesting that entrepreneurs can be created via informal education in South Africa.

Keywords

Education, Entrepreneurship, Formal Education, Informal Education

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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7 November 2016

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Chapter 1: Introduction to the Research Problem

1.1 Introduction

The importance of entrepreneurship to a country has been emphasized by many academics (Kuratko, Morris, & Schindehutte, 2015; Petridou & Sarri, 2011; Luiz & Mariotti, 2011; Mahadea, Ramroop, & Zewotir, 2011). This is no different for South Africa (Furlonger, 2016). “The importance of education as a predictor of individuals who believe they have the skills to start a business, the possibility that the business will survive beyond start up phase and the likelihood that the business will be an opportunity driven business has been consistently” (Herrington, Kew, & Kew, 2010, p. 43) revealed in previous Global Entrepreneurship Monitor (GEM) reports (Herrington, Kew, & Kew, 2010).

South African total early stage entrepreneurial activity rates declined in 2014 (Herrington, Kew, & Kew, 2014 GEM South Africa Report, 2015) with a lack of education viewed as one of the key factors attributing to the decline as well as the current education system not being a strong motivator of entrepreneurship (Illingworth, 2015; Lazenby & Machaba, 2011; Mahadea, Ramroop, & Zewotir, 2011). The role that education performs is therefore an important component of determining the entrepreneurial landscape of a country (Herrington, Kew, & Kew, 2010). A lack of education as an inhibitor of entrepreneurship creates the perception that education could have an impact on entrepreneur creation or enablement of entrepreneurship in South Africa. The facts stated by the Global Entrepreneurship Monitoring report and by Herrington have motivated the research topic of creating entrepreneurs through education in South Africa. **This research study intends to answer the question of whether education can create entrepreneurs in South Africa or if it serves as an enabler of entrepreneurship in South Africa by engaging the perceptions and opinions of South African entrepreneurs.** This question and subsequent research study is driven by the importance of entrepreneurship to the economy of a country (Kuratko *et al*, 2015; Petridou & Sarri, 2011; Luiz & Mariotti, 2011) and the impact the education people receive can or cannot have on entrepreneurship (Herrington, Kew, & Kew, 2010).

1.2 Background

In striving to develop an economy and create jobs, entrepreneurship is viewed as a critical contributor (Petridou & Sarri, 2011; Luiz & Mariotti, 2011). Kuratko *et al* (2015) go on to assert that “economic growth in most countries” (Kuratko *et al*, 2015, p. 1) is fuelled by entrepreneurship. Many other scholars share similar views about entrepreneurship and its importance to economic growth (eg. Vanevenhoven & Liguori, 2015; Kuratko, 2014; Rideout & Gray, 2013; Griffiths, Jill, Bacq, & Terjesen, 2012). As a result, there is an incentive and drive for legislators, officials and politicians to improve levels of entrepreneurship in their respective countries (Hopp & Sonderegger, 2015; Rideout & Gray, 2013).

“The rise of entrepreneurship as an academic discipline” (Piperopoulos & Dimov, 2015, p. 970) has created a large and growing number of entrepreneurial curricula at higher education institutes (Piperopoulos & Dimov, 2015). The increase in curricular is based on the idea that entrepreneurial education will aid with developing students’ “entrepreneurial attitudes, abilities, and skills” (Piperopoulos & Dimov, 2015, p. 970; Ghina, Simatupang, & Gustomo, 2015; Herrington, Kew, & Kew, 2010). This in turn will augment their aim to be entrepreneurial and start an original venture (Piperopoulos & Dimov, 2015).

1.3 Research Problem

The GEM South Africa 2014 report confirmed the level of total early stage entrepreneurial activity had declined in 2014 by 34% after marginal increases during the past decade. The GEM South Africa 2015/16 report subsequently confirms a marginal improvement in total early stage entrepreneurial activity rates since the 2014 level but highlights that “the rates for all phases of early entrepreneurial activity remain low” (Herrington & Kew, 2016, p. 4) and well below the average for “efficiency driven economies” (Herrington & Kew, 2016, p. 4). Mike Herrington, Executive Director of GEM, is quoted as saying in an SME South Africa online article that “further studies showed that education plays a major role in entrepreneurial activity in that the more educated the person, the more likely that person is to start a business and that the business continues to be sustainable” (Dludla, 2015). He goes on to further say that “this finding emphasised the need for training in South Africa” (Dludla, 2015). According to Mike Herringtons statement, lack of education is therefore one potential

reason for the decrease of entrepreneurial activity in South Africa. An article written in Finweek by Lisa Illingworth in January 2015 also confirmed that education levels are a major constraint to entrepreneurship . Mike Herrington, in the same article is quoted as saying “our education system still teaches children to be employees and not employers” (Illingworth, 2015, p. 54).

A Business Live online article written in February 2016 headlines ”SA rated one of the worst in Africa in terms of entrepreneurial activity” (Phakathi, 2016). Mike Herrington in this article again highlights that policymakers need to address education amongst many other factors to improve entrepreneurial activity. Table 1 depicts education and training as a key constraint to entrepreneurship in South Africa from a South African expert viewpoint (Herrington, Kew, & Kew, 2010). The 2014 GEM report for South Africa also confirms the other attribute of the decline to confidence. Individuals doubt their aptitude to become an entrepreneur. This can be linked to individuals having a lack of education as education provides entrepreneurs with confidence (Jimenez, Palmero-Camara, Gonzalez-Santos, Gozalez-Bernal, & Jimenez-Eguizabal, 2015).

Table 1: Key categories constraining entrepreneurship in South Africa

Category	Percentage of South African experts citing this factor
Education and training	69
Government policies	61
Financial support	50
Capacity for entrepreneurs	25
Market openness	22

Source: Herrington, Kew, & Kew (2010)

Lastly, “the South African formal sector employment shrank by 67 000 jobs in the second quarter of” (Statistics South Africa, 2016) 2016. The loss of jobs can be addressed via entrepreneurship (Petridou & Sarri, 2011).

Given the statistics from the GEM 2014 South African report on the decrease of entrepreneurial activity, the continued low levels of entrepreneurial activity in 2015 as confirmed by the GEM South Africa 2015/16 report and the comments made within the business live and finweek platforms, there is a clear problem in South Africa of fewer entrepreneurs emerging with education identified as one of the key reasons for the shortage.

1.4 Need for Research

The study is timely based on the positive effect that entrepreneurship can have on employment creation and economic growth (Petridou & Sarri, 2011; Kuratko *et al*, 2015) in South Africa. As noted by Mike Herrington, education can improve entrepreneurial rates in South Africa however, the current education system appears to promote a route to being future employees as opposed to the alternative of being future employers. Table 1 also re-confirms the reason why this study is focusing on education as an inhibitor to entrepreneurship based on the majority of South African expert views. **We therefore need to understand how we can improve our current education systems to positively influence entrepreneurship in South Africa.**

This research study is intended to benefit local educational policymakers by sharing insight obtained through the perceptions of South African entrepreneurs themselves based on their entrepreneurship journeys with the goal of improving entrepreneurial activity in South Africa through education. The learning from this research study is also intended to benefit future entrepreneurs in South Africa by providing guidance for their entrepreneurial journeys.

1.5 Research Objective

The research objective using qualitative research methods, is to ascertain the perception of education and entrepreneur creation in South Africa from a South African entrepreneur viewpoint. The main question this research study is intending to answer is whether education can create entrepreneurs in South Africa or if it is an enabler of entrepreneurship in South Africa. In trying to solicit the answer to this overarching research question, the other objectives included obtaining the perceptions of South African entrepreneurs in terms of what they think education and entrepreneurship is, their opinions on whether education enables entrepreneurship or not with reasons, their opinions on whether there is a specific level of formal education that has enabled entrepreneurship in South Africa and how the identified level has done so, the impact of education on entrepreneurship as a career choice and if there are types of education that can create entrepreneurs.

The objectives were a result of a literature review (presented in Chapter 2 of this research study) that was conducted. It highlighted key insight for the subsequent research questions (presented in Chapter 3 of this research study) that followed and guided the appropriate research design and methodology (presented in Chapter 4 of this research study). The subsequent creation of more entrepreneurs will lead to job creation, economic development and growth (Petridou & Sarri, 2011; Kuratko *et al*, 2015). This clearly demonstrates the rationale for identifying how we can create more entrepreneurs from a South African context.

Lastly, given that there is no single theory of entrepreneurship (Shane, 2012; Higgins & Galloway, 2014; Kuratko *et al*, 2015), the research is anticipated to add value within this sphere by contributing to the current research completed regarding any perception/s that may be present between education (input) and entrepreneurial activity (output) from a South African and qualitative viewpoint.

1.6 Research Scope

The research study will cover education and the perceptions of 13 entrepreneurs based in Johannesburg, South Africa, regarding how the education they had received had either created them as entrepreneurs, enabled their entrepreneurship journeys or had no impact on their entrepreneurship journey. The reasons for these scenarios were probed and used as subsequent insight to either confirm, disagree or add to the current literature on education and entrepreneurship.

The research study also acknowledges that there may be other factors such as “regulation”, “financial capital availability” and “corruption” that impact entrepreneurial activity (Walter & Block, 2016, p. 216). These factors are out of scope for this research study.

The next chapter presents the literature review. This forms the basis for understanding entrepreneurship, education, characteristics of entrepreneurs and the contrasting views of academics regarding education and entrepreneurship providing the gap in current research.

Chapter 2: Literature Review

2.1 Introduction

In chapter 1, the topic of this research was introduced as well as the rationale for the research. Chapter 2 will now review the literature which is intended to set out the gap in the literature and give rise to the research questions in chapter 3.

The purpose of literature reviews is to provide the basis for research projects (Boote & Beile, 2005). The literature review is therefore important as it provides context in terms of “what has been done before” (Boote & Beile, 2005, p. 3) as well as “the strengths and weaknesses of existing studies” (Boote & Beile, 2005, p. 3) to improve “collective understanding” (Boote & Beile, 2005, p. 3) of a certain area of study. The literature review also exhibits the researchers “knowledge of a field of study, including vocabulary, theories, key variables and phenomena, and its methods and history” (Randolph, 2009, p. 2)

The source for the literature review included academic, electronic databases. In an effort to filter appropriate and inappropriate content for this literature review, the search methods in some instances, included reading every word of an electronic article found. In other instances, titles, abstracts and discussions were read by the researcher as additional filtering mechanisms (Randolph, 2009).

The literature review conducted had multiple intentions for this study. The first was to establish a primary foundation to tackle the research problem and demonstrate the researchers knowledge of the field of study as guided by Randolph (2009). This included understanding the 2 constructs of entrepreneurship and education together with its constituents. To obtain this information, literature about education and entrepreneurship were reviewed. The second intention of the literature review sought to identify theories of entrepreneurship that acted as a secondary lens for this research study.

The third intention of the literature review sought to ascertain how entrepreneurs are created and if education could play a role in entrepreneur creation or enablement. The literature regarding the potential reasons for entrepreneur creation or enablement was subsequently reviewed.

The fourth intention of the literature review then focussed on learning, firstly, and then on how entrepreneurs learn in an effort to aid with answering the overarching research question. The literature on learning and entrepreneurial learning was subsequently reviewed.

The fifth intention of the literature review then focussed on identifying what the characteristics/competencies of entrepreneurs are as there have been significant competencies strongly related to entrepreneurship (Schimdt, Soper, & Bernaciak, 2013; Jain, 2011; Fillis & Rentschler, 2010; Koh, 1996). The reason for establishing these competencies was to understand if education could create these competencies or enable them in entrepreneurs (Morris, Webb, Fu, & Singhal, 2013) thus providing further aid with answering the overarching question of whether education creates or enables entrepreneurship in South Africa. The literature regarding entrepreneurial characteristics/competencies was subsequently reviewed.

The final purpose of the literature review then intended to tie everything together by examining what previous researchers have found regarding the link between education, entrepreneurship and the gap/s in current literature in terms of education and entrepreneurship creation. The literature review regarding the link between education and entrepreneurship was subsequently reviewed. Let us now take a closer look at all of the elements of the literature review conducted.

2.2 What is entrepreneurship?

There is no consensus or agreement on a particular way of explaining entrepreneurship given its multidimensional nature. (Higgins & Galloway, 2014, Audretsch, Kuratko, & Link, 2015, Kuratko *et al*, 2015).

Entrepreneurship has therefore been explained differently by many scholars. Shane & Venkataraman, (2000) explain entrepreneurship and the entrepreneur as “the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; the set of individuals who discover, evaluate, and exploit them” (Shane & Venkataraman, 2000, p. 218). Fillis & Rentschler, (2010) described entrepreneurship as “the process of creating value for business and social communities by bringing together unique combinations of public and private resources to exploit economic, social or cultural opportunities in an environment of change (Fillis & Rentschler, 2010,

p. 50). This augments the Shane and Venkataraman (2000) explanation by adding the concept of value creation and the amalgamation of resources to exploit opportunities.

The explanation of entrepreneurship by Jain (2011) complemented the Shane and Venkataraman (2000) and Fillis & Rentschler (2010) explanations by adding the act of venture creation as a result of an individual or individuals, in this case, entrepreneur/s, who identify and exploit opportunities. O'Connor (2013) provided a shorter explanation of entrepreneurship as “a social process involving the efforts of individuals in enterprise activities” (O'Connor, 2013, p. 547). Jimenez *et al* (2015) augments the previous explanations by including the concept of “patents as well as the thought process behind these creations” (Jimenez *et al* 2015, p. 205). Lastly, Pantea (2016) simply described entrepreneurship as “process of starting a business or an organisation” (Pantea, 2016, p. 89).

Within the context of entrepreneurship and entrepreneurship research, many scholars have cited the definition of Shane and Venkataraman (2000) in previous studies. As a result of the 2 586 citations of the Shane and Venkataraman (2000) explanation (Shane, 2012) and the simple definition of Pantea which augments the Shane and Venkataraman (2000), this research study will adopt the explanation of entrepreneurship and the resultant entrepreneur as the following:

“the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; the set of individuals who discover, evaluate, and exploit them” (Shane & Venkataraman, 2000, p. 218) to result in the start up of a business (Pantea, 2016)

2.3 What is education?

Lobler (2006) highlighted that “the word ‘education’ originated from the Latin word ‘educere’ which means ‘to lead out’.” (Lobler, 2006, p. 25) It is seen as a central point for concepts comprising of “training, teaching, learning, competencies and other accomplishments” (Lobler, 2006, p. 25). Education, explained more recently by Melnic & Botez (2014) is “the assembly of measures applied in a systematic way in order to create and develop the individual from an intellectual, affective, socio professional point of view” (Melnic & Botez, 2014, p. 113). Education is viewed as an intricate process that impacts how the human personality is formed and developed (Melnic & Botez,

2014). These explanations are poignant as it provides context as to how individuals potentially become entrepreneurs or how their journeys to entrepreneurship are enabled (Volery, Muller, Oser, Naepflin, & del Rey, 2013).

To understand education further, Waite (2016) highlighted that education is commonly associated with 3 constructs namely “qualification, socialisation and subjectification” (Waite, 2016, p. 103). Qualification is linked to attainment of “knowledge, skills and values” (Waite, 2016, p. 103). Socialisation involves “becoming a part of existing traditions and ways of doing and being through education” (Waite, 2016, p. 103). Lastly, subjectivity is related to “the subjectivity of those” (Waite, 2016, p. 103) educated. Peters & Brijlal (2011) define education as “formal education, work experience and on the job training”. They argue that education shapes the platform for business growth and sustainability. Melnic & Botez (2014) highlight the importance of the role education plays in creating nascent solutions to the global problems of humanity. The constructs mentioned, the definition of education by Peters and Brijlal (2011) and the importance of the role of education provided by Melnic and Botez (2014) are important for the context of this study as it suggests ways in which individuals can become entrepreneurs or ways that can enable entrepreneurship.

Lastly, in relating education to entrepreneurship, Jimenez *et al* (2015) confirm that education improves the entrepreneurs “self confidence” (Jimenez *et al*, 2015, p. 210), decreases “perceived risk” (Jimenez *et al*, 2015, p. 210) and affords the cognitive skills for enhanced evaluation and exploitation of opportunities. This once again suggests that education plays an important role in entrepreneurship to the point of entrepreneurship enablement but may not necessarily create entrepreneurs.

2.3.1 How is education acquired?

An individual can acquire education through 3 ways which are formal, informal and non formal in nature (Paduraru, 2013; Melnic & Botez, 2014; Farahani, Mirzamohamadi, & Noroozi, 2014). These ways are briefly discussed in the next section.

2.3.1.1 Formal Education

Paduraru (2013) explains that formal education consists of undertakings and engagements applied at an “institutional level of the education system that is”

(Paduraru, 2013, p. 639) acknowledged “within a curriculum framework and has” (Paduraru, 2013, p. 639) particular educational objectives. It is explained more succinctly by Melnic & Botez (2014) as a correspondence “to a systematic, organised educational model, structured and administered according to a given set of laws and norms, presenting a rather rigid curriculum regarding objectives, content and methodology (Melnic & Botez, 2014, p. 114). Farahani, Mirzamohamadi & Noroozi (2014) define formal education as “the hierarchically structured, chronologically graded education system, running from primary school through university and including, in addition to general academic studies, a variety of specialised programs and institutions for full time technical and professional training” (Farahani, Mirzamohamadi, & Noroozi, 2014, p. 560).

There is a distinct group of characteristics that are linked to formal education (Melnic & Botez, 2014). “Schools, colleges and universities” (Paduraru, 2013, p. 639) are examples of institutional levels (Paduraru, 2013; Melnic & Botez, 2014) and the mechanisms of acquiring formal education.

2.3.1.1.1 Formal Education in South Africa

South Africa has 3 bands of formal education namely, General Education and Training, Further Education and Training and Higher Education and Training (SouthAfrica.info, 2015). School is an example of General Education and Training in South Africa (SouthAfrica.info, 2015). Schooling in South Africa is intended to equip learners “with the knowledge, skills and values necessary for self fulfilment and meaningful participation in society as citizens” (Republic of South Africa Department of Basic Education, 2016) of South Africa. It is also tasked with “facilitating the transition of learners from education institutions to the workplace” (Republic of South Africa Department of Basic Education, 2016). This suggests that South African schools prepare learners to be employees as opposed to encouraging entrepreneurship. The purpose of schooling in South Africa is to teach learners how to “identify and solve problems” (Republic of South Africa Department of Basic Education, 2016) together with “using critical and creative thinking” (Republic of South Africa Department of Basic Education, 2016) to make decisions (Republic of South Africa Department of Basic Education, 2016). This suggests components of entrepreneurship which is discussed later in section 2.7.

Colleges are an example of Further Education and Training and universities are an example of Higher Education and Training (SouthAfrica.info, 2015). The intension of the Department of Higher Education and Training in South Africa through universities etc is to develop “capable, well-educated and skilled citizens who are able to compete in a sustainable, diversified and knowledge intensive economy which meets the development goals” (Republic of South Africa Department of Higher Education and Training, 2016) of South Africa (Republic of South Africa Department of Higher Education and Training, 2016). These bands of education set the context for the formal education available to potential and current entrepreneurs in South Africa.

2.3.1.2 Informal Education

The word ‘informal’ originates from the Latin word ‘informalis’ implying unstructured, unplanned, and unforeseen. Informal education results in learning that is not deliberate with the source of learning being daily stimuli. Work experience and on the job training are ways of acquiring informal education (Peters & Brijlal, 2011). Farahani, Mirzamohamadi, & Noroozi (2014) define informal education as a “truly lifelong process whereby every individual acquires attitudes, values, skills and knowledge from daily experience and the educative influences and resources in his or her environment – from family and neighbours, from work and play, from the marketplace and the mass media” (Farahani, Mirzamohamadi, & Noroozi, 2014, p. 560). Practice and extracurricular activities are other ways of acquiring informal education (Cordea, 2014). “Non accredited student activities” (Cordea, 2014, p. 1145) such as “games, competitions, mentoring, job shadowing, internships, speeches by entrepreneurs and role models, networking events” (Cordea, 2014, p. 1145) are examples of entrepreneurial extracurricular activities (Cordea, 2014).

The difference between informal education and formal education is that informal education is not as Paduraru (2013) states, “pedagogically selected, processed and organised” (Paduraru, 2013, p. 640).

2.3.1.2.1 Informal education in South Africa

This form of education was explored in the subsequent interviews with South African entrepreneurs as part of the data collection process for this study. The interviews

sought to confirm if South African entrepreneurs educated themselves informally in becoming entrepreneurs and ascertained how they did this in South Africa. This subsequently created literature from a South African context.

2.3.1.3 Non formal Education

This form of acquiring education is provided by organisations involved in educational activities (Paduraru, 2013). It can also be explained by “any organised educational activity outside the established formal system – whether operating separately or as an important feature of some broader activity this is intended to serve identifiable learning clientele and learning objectives” (Farahani, Mirzamohamadi, & Noroozi, 2014, p. 560)

A few examples of acquiring non formal education include museums and libraries (Paduraru, 2013; Tudor, 2013). The learning environment is described as formal but without a formal, educational framework (Paduraru, 2013).

2.3.1.3.1 Non formal Education in South Africa

According to the department of National Arts and Culture of the Republic of South Africa, there is an entity called the National Library of South Africa. This entity is responsible for developing data literateness and enabling admission “to the world’s information resources” (Republic of South Africa Department of Arts and Culture, 2016). This provides an example of the context available to potential entrepreneurs in South Africa from a non formal education perspective. This form of education was explored in the subsequent interviews with South African entrepreneurs as part of the data collection process for this study. The interviews sought to understand if South African entrepreneurs educated themselves non formally in becoming entrepreneurs and attempted to ascertain how they did this.

2.4 Entrepreneurship Theory

Shane (2012) stated that no single theory of entrepreneurship had been recognised. The status quo remained the same two years later (Higgins & Galloway, 2014). Kuratko *et al* (2015) re-iterated that researchers maintain arguments and discussion regarding the theories of entrepreneurship. It is important to understand the theories of

entrepreneurship as theories should demonstrate “a verifiable and logically coherent formulation of relationships, or underlying principles that either explain entrepreneurship, predicts entrepreneurial activity or provides normative guidance” (Kuratko *et al*, 2015, p. 2).

As there is currently no specific theory of entrepreneurship (Higgins & Galloway, 2014; Kuratko *et al*, 2015), Human Capital theory was reviewed and selected as a secondary lens for this study (in addition to the rest of the literature) based on the relation to the topic of entrepreneurship creation in South Africa through education. Human Capital Theory is now briefly discussed to provide context and perspective in relation to this study.

2.4.1 Human Capital Theory

Human capital theory is used as a theoretical framework (Unger, Rauch, Frese, & Rosenbusch, 2011; Martin, McNally, & Kay, 2013) when trying to understand education as the determinant for becoming an entrepreneur (Dickson, Solomon, & Weaver, 2008). The framework “examines the impact of acquired variables such as experience and education on career outcomes and is built upon the assumption that education can serve both as a determinant of decision choice as well as providing benefits to specific ventures” (Dickson *et al*, 2008, p. 240). Martin *et al* (2013) explain human capital theory as a theory “which predicts that individuals or groups who possess greater levels of knowledge, skills, and other competencies will achieve greater performance outcomes” (Martin *et al* 2013, p. 211). Based on the thoughts of Dickson *et al*, (2008) which is indirectly supported by Martin *et al*, (2013), human capital theory was applied as a secondary lens to the research problem of whether education creates or enables entrepreneurship by viewing education and experience as an input to firm creation.

2.5 How are entrepreneurs created?

Shane and Venkataraman (2000) assert that it is important to understand “why, when and how some people” (Shane & Venkataraman, 2000, p. 218) are entrepreneurs whilst others are not. The central premise about education and its development of entrepreneurship is that entrepreneurship can be learned (Volery *et al* 2013; Lazenby & Machaba, 2011). This suggests that education could create entrepreneurs and that

entrepreneurs are not necessarily born (Dickson, Solomon, & Weaver, 2008; Klandt, 2004; Kolvereid, 1996).

Bennett (2006) highlighted 2 approaches to educating entrepreneurs with the intent of creating or enabling entrepreneurship. The skills based program is the first approach and the attitude development program is the second approach. Other approaches that suggest entrepreneurs can be created or enabled include push and pull factors (Dawson & Henley, 2012; Lazenby & Machaba, 2011) and family backgrounds (Kirkwood, 2012; Carr & Sequeria, 2007). These approaches to entrepreneur creation and enablement are now discussed to provide further context on how they could contribute to either entrepreneur creation or enablement.

2.5.1 Skills Development Approach and Attitude Development Approach

The **skills development** approach encompasses the skill set required for entrepreneurship. These programs impart knowledge to learners about the processes and methods of managing “their own business” (Josien & Sybrowsky, 2013, p. 3). These include “how to raise finances, how to choose ones location, taxation, employment, legal requirements” (Josien & Sybrowsky, 2013, p. 3) basic accounting etc (Josien & Sybrowsky, 2013). The pedagogical approaches to the skills based programs comprise of “case studies, lectures, and assigned reading intended to develop the students’ critical judgment and capacity to digest, understand and analyze information” (Josien & Sybrowsky, 2013, p. 3). This approach adopts the premise that entrepreneurs are “born” and the purpose of education to entrepreneurs is to help them develop required skills. This contradicts the views of Volery *et al* (2013) who suggest that one can learn to become an entrepreneur. Lastly, this approach has been criticized by a few scholars who believe that this approach does not replicate or create the actual environment entrepreneurs operate in (Josien & Sybrowsky, 2013). The environments that entrepreneurs operate in are generally characterised by “intuition and limited information under acute time pressure” (Henderson & Robertson, 1999).

The **attitude development** approach is the second approach highlighted by Bennet (2006). This approach adopts the premise that entrepreneurship can be learned and is supported by previous scholars namely Volery *et al* (2013). This approach is built on the platform of experiential learning meaning the aptitudes and attributes associated

with entrepreneurs can be attained through experience (Josien & Sybrowsky, 2013; Lazenby & Machaba, 2011). “Life experience (including relevant educational experience), can itself engender and encourage innovativeness, self determination, imaginative problem solving and so on” (Josien & Sybrowsky, 2013, p. 4).

2.5.2 Combination of the Skills and Attitude Development Approaches

The study by Josien & Sybrowsky in 2013 combined the 2 approaches mentioned previously to create an effective way of teaching entrepreneurship with the intent of creating or enabling entrepreneurship. They supplemented the skills approach with “elements outside the classroom” (Josien & Sybrowsky, 2013, p. 8). This introduced “real life features where the aptitude based approach can enhance learning” (Josien & Sybrowsky, 2013, p. 8). The study also showed that this exercise could be an inhibitor of entrepreneurship as educating ones self about entrepreneurship could have a negative impact on the desire of one to start a business (Josien & Sybrowsky, 2013).

2.5.3 Push and Pull Factors

Lazenby & Machaba (2011) highlight there could be push and pull factors that lead to entrepreneur creation. Pull factors include “the promise of independence, flexibility and the allure of success” (Dawson & Henley, 2012; Lazenby & Machaba, 2011, p. 73) that entrepreneurship could bring to an individual. Push factors include “retrenchment, lack of job opportunities, family reasons and barriers in the labour market” with entrepreneurship being an answer to these challenges. These push and pull factors suggest triggers for entrepreneurship creation and/or enablement from a different perspective other than being formally educated through entrepreneurship programs or general education.

2.5.4 Family Background

The likelihood of an individual wanting to start a business or new venture is probable based “intergenerational influence” (Carr & Sequeria, 2007, p. 1090) which is based on an individual having exposure to previous family business (Carr & Sequeria, 2007). Intergenerational influence “is rooted in sociological and psychological theories that focus on the socialization of children” (Carr & Sequeria, 2007, p. 1092). Initial

“exposure to entrepreneurship and experience in the family business” (Carr & Sequeria, 2007, p. 1092) has an impact on that individuals “attitude and intentions” (Carr & Sequeria, 2007, p. 1092) towards entrepreneurship. The study completed by Carr & Sequeria in 2007 suggested that having exposure to prior family business provides informal education in the form of practical training. “From a human capital perspective, family businesses could be described as business incubators for future business start ups by serving as a training ground for those children of family firm owners” (Carr & Sequeria, 2007, p. 1096). The concept that family businesses can serve as business incubators and thereby serve as informal education is also echoed by Kirkwood (2012). Kirkwood (2012) also confirmed that several studies concluded “that the percentage of entrepreneurs who have parents who are or had been entrepreneurs is higher than that of the general population” (Kirkwood, 2012, p. 142). To conclude, the Carr & Sequeria 2007 study suggests that exposure to prior family business could be contribute to how entrepreneurs can be created or enabled.

The researcher agrees with the skills development approach highlighted by Josien and Sybrowsky (2013) in that entrepreneurs are not created through formal education but rather that programs like the skill development approach can enable entrepreneurship. The researcher therefore argues such hereon in this research study. Although Volery *et al* (2013) and Lazenby & Machaba (2011) highlight that education, specifically informal education can be used as a medium to teach entrepreneurship, Dawson & Henley (2012) and Lazenby & Machaba (2011) highlight push and pull factors, Carr & Sequeria (2007) and Kirkwood (2012) highlight that exposure to family business serves as informal entrepreneurship education, there is no evidence of causation/actual entrepreneur creation. It is for this reason that the researcher supports the view that entrepreneurs are not created but rather the combination of the skills development and attitude development approaches together with push and pull factors as well as family background are enablers of entrepreneurship through formal and informal education.

2.6 Learning and Entrepreneurial Learning

Learning is defined as “discovering and developing one’s behavior as well as discovering and developing one’s own concepts” (Lobler, 2006, p. 29 and 30). There have been 3 ways of learning. The first way to learn is to attain “knowledge and skills” (Yamakawa & Cardon, 2015, p. 799). This is accomplished via an “educational process” (Yamakawa & Cardon, 2015, p. 799). The second way to learn is “by doing”

(Yamakawa & Cardon, 2015, p. 799) which involves repetition. The third way of learning was identified as the process of reflection. (Yamakawa & Cardon, 2015).

The literature had also confirmed inconsistencies with the definition of entrepreneurial learning with no agreement amongst scholars (Wang & Chugh, 2014). Based on this fact, this study will adopt the Lobler (2006) definition and the Yamakawa & Cardon (2015) 3 ways of learning.

Wu & Jung (2008) explain there are two key educational forces that cater for diverse groups in relation to entrepreneurial training programs. The first educational force is traditional programs and they assist learners in business typed school settings. "From a pedagogical perspective, traditional methods of teaching for entrepreneurship have discounted the importance "of practice as an epistemological means of learning and how practice can contribute to entrepreneurial development" (Cordea, 2014, p. 1143). The present literature regarding entrepreneurial learning has moved in the direction of "learning for" entrepreneurship versus "learning about" entrepreneurship (Higgins, Smith, Kelly, Mirza, & Mohammed, 2013).

Higgins *et al* (2013) highlight there is a general agreement "that pedagogical methods of learning alone are insufficient to adequately develop entrepreneurs to deal with the complexities of running and creating innovating business opportunities". The pedagogical methods of learning regarding entrepreneurship does "not equip the entrepreneur with the ability to gain real insight into the natural practices of what it means to be a practicing entrepreneur, where experience and learning is gained through the natural process of social enactment" (Higgins *et al*, 2013, p. 3).

In summary, Higgins *et al* (2013) suggests that current pedagogy for entrepreneurship should encapsulate "reflective critique" (Higgins *et al*, 2013, p. 10). This technique would then enable the individual to advance his or her understanding of what it entails "to practice as an entrepreneur" (Higgins *et al* 2013, p. 10).

Lastly, Wu & Jung, (2008) are in favor of non traditional programs which is the second educational force that caters for diverse groups in relation to entrepreneurial training programs. They explain these programmes to accommodate a person/s starting their own business. The person/s starting their own businesses require aid via practical ways. Cordea (2014) went on to further argue that "non traditional approaches" (Cordea, 2014, p. 1144) to educating for entrepreneurship must be heeded and implemented as this will allow students the opportunity to "learn to embrace the

challenges of operating in a business environment that favours creativity and risk taking” (Cordea, 2014, p. 1144). “Being involved in extracurricular activities provides greater opportunities for students to learn by doing through action and experience accumulated” (Cordea, 2014, p. 1147).

In summary the Higgins *et al* (2013) and Cordia (2014) studies allude to education, specifically informal education through practice and experience as ways of learning to become an entrepreneur. This suggests that entrepreneurs can be created. They however, do not show causation in their studies that is, how many individuals actually became entrepreneurs through informal education. The researcher once again, therefore takes the view that entrepreneurship can be enabled through informal education.

2.7 Entrepreneurial Characteristics/Competencies

Morris *et al* (2013) assert that “education can play an important role in the” (Morris *et al*, 2013, p. 363) competency “development process by providing the key building blocks or scripts (ie norms, values, and rules guiding desirable behaviors) and constructing experiences through which students can employ these scripts, gain feedback, confirm or disconfirm their assumptions and understandings, and mold their attitudes and behaviors into competencies” (Morris *et al*, 2013, p. 363). Given that education could influence competency development, this section of the literature review now explores the competencies of entrepreneurs in an effort to ascertain if the competencies of entrepreneurs identified can be acquired through education thereby aiding with the answer to the overarching research question of whether education creates or enables entrepreneurship.

Creativity, risk taking, innovation and proactiveness are significant competencies of entrepreneurs (Schmidt *et al*, 2013; Sanchez, 2013; Jain, 2011; Fillis & Rentschler, 2010; Koh, 1996). They are now discussed briefly to provide context.

2.7.1 Creativity

Fillis & Rentschler (2010) assert that creativity could be seen “as the construction of ideas and products which are new and potentially useful” (Fillis & Rentschler, 2010, p.

50) as well “as showing imagination and originality of thought in moving beyond everyday thinking” (Fillis & Rentschler, 2010, p. 51). “Creativity also includes building upon and improving current ideas to improve” (Robinson & Stubberud, 2014, p. 187).

The relationship between entrepreneurship and creativity are closely related to each other with creativity being viewed as an important skill for an entrepreneur to have (Jain, 2011, Schmidt *et al*, 2013). Creativity is also viewed as “one of the defining characteristic of entrepreneurship” (Zao, Seibert, & Lumpkin, 2010, p. 385). From an entrepreneurial perspective, the output should be linked to innovation and profitability (Fillis & Rentschler, 2010).

When compared to others, entrepreneurs are usually more creative (Jain, 2011). “Creative people pursue ideas that are unknown or out of favor but that have growth potential” (Jain, 2011, p. 133). Creative people then also persist with these ideas in the face of resistance until successful (Jain, 2011). Lastly, creativity can also be seen as a fundamental part when trying to problem solve and facilitates decision making (Fillis & Rentschler, 2010).

2.7.2 Risk Taker/Risk Taking

“Entrepreneurs are perceived as more risk prone than other people” (Macko & Tyszka, 2009, p. 470). To take risk or to be a risk taker can be explained as “one’s orientation toward taking chances in uncertain decision making contexts” (Koh, 1996, p. 3). Risk taking is confirmed to be one of the main characteristics of entrepreneurs (Sanchez, 2013; Koh, 1996). Irrespective of industries, risk taking appears to be innate and an integral part of the success of entrepreneurs (Kyndt & Baert, 2015). Innateness therefore suggests that this competency/characteristic cannot be taught.

2.7.3 Proactive

The degree to which individuals “take action to influence their environments (Bateman & Grant, 1993, p. 103) is described as proactive behavior. Bateman & Grant (1993) describe proactive people as people who “scan for opportunities, show initiative, take action and persevere until they reach closure by bringing about change” (Bateman & Grant, 1993, p. 105). Fillis & Rentschler (2010) also highlight perseverance and supplements proactivity with adaptability and the notion of “breaking with the

established ways of doing things” (Fillis & Rentschler, 2010, p. 50). Rundh (2011) goes on to further state that proactiveness relates to the execution of an innovation and realising that innovation within the marketplace. Lastly, Sanchez (2013) emphasizes that to be proactive underlines being able to anticipate and prevent a problematic situation from happening before it does and a personal characteristic of “action that includes a creative interpretation of norms and a high level of persistence and patience for bringing about change” (Sanchez, 2013, p. 451).

2.7.4 Innovative

Jain (2011) confirms that according to Schumpeter in 1967, “the most distinguished characteristic of an entrepreneur is his innovative nature” (Jain, 2011, p. 130). Innovation continues to be a commonly acknowledged functional distinction of entrepreneurs (Jain, 2011). Entrepreneurs use this characteristic to explore nascent opportunities (Fillis & Rentschler, 2010). New value for customers is created by the entrepreneurs’ ability to innovate as entrepreneurs continually explore ways of improving the way we do things and make them better (Rundh, 2011).

2.7.5 Flexible

Rundh (2011) states that generally, flexibility signifies the aptitude “to respond and adapt to change as well as inflict change on others” (Rundh, 2011, p. 331) Flexibility allows the entrepreneur to view nascent ways in the application of previous experience and building different strategic ways (Fillis & Rentschler, 2010)

2.8 Link between Education and Entrepreneurship

In 2008, van der Sluis, van Praag & Vijverberg (2008) completed a meta analysis of studies which looked at “the impact of educational attainment” (van der Sluis *et al*, 2008, p. 802) and entrepreneurship as a choice. The conclusion of the study demonstrated that no evidence supported the choice of entrepreneurship and a persons level of schooling (van der Sluis *et al*, 2008). Higgins and Galloway (2014) confirmed at the time there is no approach identified that is most effective in educating entrepreneurs. “Formal education, experience, knowledge, skills, training, employment experience, start up experience, owner experience and parents background,” are considered elements of human capital (Unger *et al*, 2011). Krasniqi (2014) stated that even though human capital is generally accepted as a key ingredient for starting a

business, the link is questionable. To substantiate, this suggested the impact of formal and informal education on entrepreneurship is debatable. Leading on, Krasniqi (2014) confirms “the effect of education on an individuals decision to engage in entrepreneurial activity is inconclusive” (Krasniqi, 2014, p. 37). The links are inconclusive based on the possibility that education provides access to employment that pays well (Krasniqi, 2014;van der Sluis *et al*, 2008) and the receivers of education realise that they may not be entrepreneur material (Josien & Sybrowsky, 2013; Oosterbeek, van Praag, & Vijverberg, 2010).

To conclude the inconclusive link between education and entrepreneurial activity, a meta analyses completed between 1995 and 2006 by Dickson *et al* (2008) found that there was an unverified association between education and firm creation. Dickson *et al* did however note an affirmative association between education level and firm outcomes measured by “profitability, growth and innovation” (Dickson *et al*, 2008, p. 242). In a twist, Dickson *et al* (2008) then suggested, based on their review, that there is no significant association between “educational attainment” (Dickson *et al* 2008, p. 242) and the ability of the firm to survive. Lastly, Sanchez (2012) and Volery *et al* (2013) found an affirmative connection between entrepreneur specific education “and both entrepreneurial competencies and intention” (Sanchez, 2013, p. 458). These studies, however, present a gap or room for debate as, even though there was a positive impact established between education and entrepreneurial competency and intention development, there was no evidence presented in the study to confirm or affirm actual entrepreneur creation or venture creation. Therefore, no conclusive link between education and entrepreneur creation/venture creation can be assumed.

The study concluded by Jimenez *et al* (2015) however, contradicts the views of Krasniqi (2014) and the findings of Dickson *et al* (2008). Jimenez *et al* (2015) confirmed a positive link between formal education and entrepreneurship. Jimenez *et al* (2015) further stated that secondary and tertiary education specifically contributes to the expansion of entrepreneurship.

Kolstad & Wiig (2015) looked at education from a primary level perspective and concluded a positive link between a primary level of formal education and entrepreneurship. They also highlighted the theoretical arguments that “generalised knowledge of the kind provided through primary education is important for entrepreneurs to acquire the diverse skills to run a business successfully” (Kolstad &

Wiig, 2015, p. 794). As “primary education provides basic skills of literacy and numeracy required to acquire and use a number of other skills necessary to become a successful entrepreneur, returns are likely to be positive and economically substantial for entrepreneurs” (Kolstad & Wiig, 2015, p. 785). This suggests a positive link between formal education and entrepreneurship although it is not clear if the link creates entrepreneurs or enables entrepreneurship.

Dickson *et al* (2008), through their review of research between education and entrepreneurship, noted that 2 meta analyses studies confirmed affirmative links “between education and entrepreneurship” (Dickson *et al*, 2008, p. 240). Chen & Thompson, (2016) and Rauch & Hulsink, (2015) also re-iterate a positive link between education and entrepreneurship based on the skills learnt from education.

The reasons attributed to the positive link between education and entrepreneurship include education being an enabler of high self confidence, lower perceived risk, and a provider of cognitive skills that improve evaluation and exploitation of opportunities (Jimenez *et al*, 2015). Education improves human capital and increases the knowledge and capabilities of entrepreneurs. (Jimenez *et al*, 2015). Other reasons attributed to the positive link between education and entrepreneurship include skill acquisition through general education (Kolstad & Wiig, 2015) and a surge in attitude and perceived behavior control (Rauch & Hulsink, 2015).

2.9 Conclusion

The literature review highlighted a few key points and provided a baseline for understanding the entrepreneur and education on a high level in terms of what entrepreneurship is, what education is and how education could be acquired. To recap, there is no single explanation or theory of entrepreneurship with scholarly debate rife in this area (Higgins & Galloway, 2014; Kuratko *et al*, 2015). This suggests there is value in future entrepreneurship research. Education can be acquired through formal, informal and non formal mechanisms.

The theories of entrepreneurship were then briefly discussed to assist with a lens for this research study. We then looked briefly at the factors that could impact entrepreneur creation or enablement and identified how entrepreneurs potentially learn to do what they do. As education could influence competency/characteristic

development, the literature review then focused on the competencies/characteristics of entrepreneurs.

Lastly, the literature also confirmed a contradiction regarding the link between education and entrepreneurship with Jimenez *et al* (2015), Dickson *et al* (2008), Kolstad & Wiig (2015), Rauch & Hulsink (2015) and Chen & Thompson (2016) suggesting positive links between education and entrepreneurship with van der Sluis *et al* (2008), Higgins & Galloway (2014) and (Krasniqi, 2014) suggesting otherwise.

There were however, limitations to these studies. For example, the Jimenez *et al* (2015) study commented their findings were not generalisable based on premise that education levels cross country are possibly not homogenous. The Rauch and Hulsink (2015) study was completed at one business school, thereby asserting that their result may not be generalisable. Lastly, these studies confirm positive links between education and entrepreneurship but are unclear in terms of whether education creates entrepreneurs or if it serves as an enabler of entrepreneurship.

The limitations are similar for the scholars who assert no clear link between education and entrepreneurship example Oosterbeek *et al* (2010). The limitation of the Krasniqi (2014) study amongst a few was the cross sectional nature of the study.

These limitations coupled with no clear indication of entrepreneur creation through education by the advocates of the positive link between education and entrepreneurship and the contradiction in the literature regarding the link between education and entrepreneurship suggest further research is required to understand the linkage between education and entrepreneurship. The contradictions and opposing views from previous research studies also suggest that there is no conclusion to the link and impact that education has on entrepreneurship. This provided the opportunity for further research to be conducted and more specifically, within a South African context. Lastly, based on the literature review and to re-iterate, the researcher argues that education is an enabler of entrepreneurship as confirmed by Chen & Thompson (2016), Jimenez *et al* (2015), Dickson *et al* (2008) and does not necessarily create entrepreneurs.

The next chapter confirms the research questions that arose from the literature review.

Chapter 3: Research Questions

3.1 Introduction

Chapter 2 revealed the literature related to the topic of creating entrepreneurs in South Africa through education. The purpose of the topic is to answer the overarching question of whether education leads to the creation of entrepreneurs or the enablement of entrepreneurship in South Africa given that a lack of education is one of the key reasons for deteriorating early entrepreneur rates in South Africa as highlighted in chapter 1.

The literature essentially revealed contradictory views regarding the link between education and entrepreneurship. The questions that emerged from the literature review are now stated below:

3.2 Research Questions

3.2.1 Research Question 1: What is entrepreneurship and how is education acquired from a South African entrepreneur viewpoint?

Research question 1 intended to firstly ascertain South African entrepreneurs' views on what entrepreneurship is based on the constructs identified within the literature review. This was to ascertain, based on a South African context, if South African views are different or in line with current research as the literature review confirmed no consensus or agreement on a single explanation of entrepreneurship (Higgins & Galloway, 2014; Audretsch, Kuratko, & Link, 2015; Kuratko *et al*, 2015). Secondly, research question 1 sought to also understand how education is acquired from a South African entrepreneur viewpoint. Lastly, the responses to this question also provided the context for the rest of the interview for both the researcher and the interviewee.

3.2.2 Research Question 2: In the interviewees' opinion, how has education been an enabler or creator of entrepreneurship in South Africa?

Research question 2 sought to qualitatively confirm the variables identified within the literature namely higher self-confidence, lower perceived risk, cognitive skills etc as well as identify new variables from a South African context

3.2.3 Research Question 3: Is there a specific level of education that can be linked to entrepreneurship in South Africa and how does it link to entrepreneurship?

Research question 3 sought to confirm the different levels identified within the literature as well as probe for potential new insight

3.2.4 Research Question 4: How does education impact entrepreneurship in terms of career choice in South Africa?

Research question 4 sought to probe the information within the literature from a South African perspective. The literature confirmed education could be a driver of high paying jobs and an eye opener for potential entrepreneurs in terms of their ability to become an entrepreneur, therefore being an inhibitor of entrepreneurship

3.2.5 Research Question 5: What are the types of education that could create entrepreneurs and how do they do so in South Africa?

The literature suggested that formal and informal education could create entrepreneurs but, to the best of the researchers knowledge and review of the literature, the studies reviewed did not actually confirm causality that is, education creates entrepreneurs. Research question 5 sought to understand through the perceptions of South African entrepreneurs if there are types of education that could create entrepreneurs in South Africa

Chapter 4: Research Methodology

4.1 Introduction

Chapter 3 identified questions this research study is intended to answer with the purpose of answering the overarching question of whether education creates entrepreneurs or enables entrepreneurship in South Africa. This chapter will now outlay the research methodology used to obtain the answers to the research questions and overarching research question. The chapter ends with limitations of this research study.

4.2 Research Method and Design

There are three different types of research namely, descriptive, explanatory and exploratory. Descriptive studies depict a phenomenon as opposed to providing an explanation as to why the phenomenon occurred (Saunders & Lewis, 2012). Explanatory studies forward descriptive studies “by looking for an explanation behind a particular occurrence through the discovery of causal relationships between key variables” (Saunders & Lewis, 2012, p. 113)

The literature review predominantly included quantitative studies. This research study intended to be different by probing the insight from the literature from a qualitative view point and attempted to identify nascent ideas and themes. Saunders & Lewis (2012) articulate that exploratory research assists the researcher to find “general information” about the research topic in circumstances where the researcher does not clearly understand the research topic. This is fuelled by the opposing views of different academics regarding the research topic. Exploratory research also helps with the generation of insights that are useful for understanding and furthering knowledge (Saunders & Lewis, 2012). Common exploratory methods include:

- i. Probing “academic literature” (Saunders & Lewis, 2012, p. 110)
- ii. Questioning “experts in the subject” (Saunders & Lewis, 2012, p. 110)
- iii. “Conducting interviews” (Saunders & Lewis, 2012, p. 110)

For these reasons, the study type of this research will be exploratory.

The research method adopted for this research study was qualitative. The qualitative research method was chosen as it is designed to help “researchers understand people” (Myers, 2009, p. 5), in this study, entrepreneurs, “and what they say and do” (Myers, 2009, p. 5). In probing the link and perceptions of South African entrepreneurs between education and entrepreneurship, qualitative research allowed the researcher to “understand the context within which decisions and actions take place” (Myers, 2009, p. 5). The context was important as it aided with explaining why entrepreneurs “acted as they did” (Myers, 2009, p. 5). To understand the context, conversing with entrepreneurs is highly recommended (Myers, 2009). Seidman (2006, p. 10) stated that “social abstractions like education are best understood through the experiences of the individuals whose work and lives are the stuff upon which the abstractions are built”. It is for these reasons that the qualitative method was chosen as opposed to quantitative. “Only by talking to people or reading what they have written can we find out what they are thinking” (Myers, 2009, p. 6). Understanding “their thoughts go a long way towards” (Myers, 2009, p. 6) the explanation of their engagements.

4.3 Population

The population included Johannesburg based entrepreneurs who met the requirements as per the definition of entrepreneurs mentioned in chapter 2. To recap, these entrepreneurs identified an opportunity and exploited the opportunity to start a new business.

Johannesburg is South Africa’s “most economically important city” (Cairns, 2015) and “is the financial hub of South Africa” (SouthAfrica.info, 2016). For these reasons, Johannesburg was selected as the region where the study was conducted. The location of Johannesburg was also convenient for the researcher. The population of Johannesburg based entrepreneurs formed the basis for the sample selected.

4.4 Sampling Method and Sample size

As the researcher did not have a list of all the names of the population, the non probability sampling method was used, purposive and snowball in particular, to select entrepreneurs to interview. This type of sampling is commonly evaluated by means of “qualitative analysis techniques” (Saunders & Lewis, 2012, p. 134). Purposive sampling

was used as judgment forms the basis of selecting the sample. The snowball method was also used as the process of identifying research participants within the population was difficult to an extent. These methods assisted with the identification of a suitable sample for qualitative research purposes. The age range of research participants were between 18 and 65. The rationale for sampling between the ages of 18 – 65 was based on the individual being an adult and falling within or at retirement age in South Africa.

Saunders and Lewis (2012) confirmed that sample sizes are dependent on the characteristics of population in terms of homogeneity and heterogeneity. A sample size of between 15 to 25 was recommended for heterogeneous populations (Saunders & Lewis, 2012).

The researcher endeavoured to interview 15 Johannesburg based entrepreneurs. After dedicating 6 weeks for the interview process, 13 interviews were conducted. The 13 entrepreneurs interviewed were found to be adequate because a point of saturation was reached, that is, no substantially new information emerged (Saunders & Lewis, 2012) after 13 interviews that would have changed the course of the subsequent findings and influence the answer to the overarching research question in another direction.

4.5 Unit of analysis

The unit of analysis for the purposes of this study was an individual, which, in this research, refers to entrepreneurs (Saunders & Lewis, 2012).

4.6 Data Collection

Saunders & Lewis (2012) asserted that “exploratory studies” (Saunders & Lewis, 2012, p. 110) are appropriate “to qualitative methods such as interviewing” (Saunders & Lewis, 2012, p. 110). Interviews facilitate the collection of “rich data” (Myers, 2009, p. 121) from individuals that have been in and experienced many situations (Myers, 2009). There are generally three types of interviews. These include structured, semi structured and unstructured interviews. Structured interviews are characterised by a set of pre designed questions that are generally queried in a particular order and at times, completed within an identified period in terms of time (Myers, 2009).

Unstructured interviews are characterised by minimal pre designed questions, sometimes none. These types of interviews generally either have a predefined time period in terms of duration or on the other hand, do not have a predefined time period. The interviewees during these types of interviews have carte blanche in terms of what they want to say (Myers, 2009).

Semi structured interviews allow for structure and room for improvisation thereby allowing for focus and allowing for the prospect of the interviewee to enhance insight as they occur during the discussion (Myers, 2009). It is also the “most commonly used in business and management” (Myers, 2009, p. 125). For these reasons, data collection was facilitated via semi structured; face to face interviews with entrepreneurs as per the definition of entrepreneurs mentioned in chapter 2. Semi structured interviews provide the most appropriate way of collecting data as the primary nature of the data adds value to research on entrepreneurship in general as it is unique based on this research project (Myers, 2009).

Lastly, Saunders and Lewis (2012) highlight “ethical principles” (Saunders & Lewis, 2012, p. 83) when proceeding with the collection of primary data through interviews. These include the following:

1. No harm should be caused to the research participant
2. Ensure that people are not forced into research participation
3. Obtain consent from the research participants prior to the interview
4. Maintain a high standard of morality

In respecting the ethical principles of research, confidentiality and anonymity were offered to the research participants. In chapter 5, the names of 3 companies were disclosed to inform the readers of this research study the high profile nature of some of the interviewees as recommended by GIBS. No names were mentioned in chapter 5 and no objections were received from the interviewees to disclose the company names in chapter 5.

4.6.1 Data Collection Tool and Interview Guide Design

An interview guide served as the data collection tool for this research study. A deductive approach was used for the interview guide formulation that is, the interview guide was based on the literature reviewed. The researcher was also the architect of

the interview guide. Questions that are normally asked during qualitative research are “what”, “why”, “how” and “when” (Myers, 2009, p. 6) questions. The interview guide drafted by the researcher for this study followed suit and can be viewed as Appendix 2. The interviews with the entrepreneurs were completed in person at a location convenient to the interviewees. The interviews were also electronically recorded and fully transcribed in a manual way by the researcher. An outsourced transcription service provider was also used to supplement the transcriptions completed by the researcher. This ensured integrity and accuracy of the data (Blumberg, Cooper and Schindler, 2008).

Lastly, as a part of the interview design process, the interview guide was pre-tested prior to executing the actual interviews with entrepreneurs. This aided the researcher with familiarisation of the interview process, flow and structure. It will also served as a test for language and ensured that the sentence construction of the questions lead to minimal ambiguity. The interview data was collected over one period of time indicative of a cross sectional study (Saunders & Lewis, 2012).

4.8 Data Analysis and approach



The unstructured data was a result of 814 (circa 13.5 hours) minutes of interviewing. The average interview length was 63 minutes with the shortest interview spanning circa 41 minutes and the longest interview spanning circa 91 minutes.

Hsieh & Shannon (2005) highlight that a technique called content analysis is commonly adopted for qualitative research. “Content analysis is defined as a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns” (Hsieh & Shannon, 2005, p. 1278). As content analysis is a common technique used for interpreting qualitative data, this technique was used for this research study to interpret the resultant unstructured text data that arose from the data gathering process mentioned in section 4.6. A deductive and inductive approach was used for the analysis of the data collected. Saunders & Lewis (2012) promotes the use of a combined approach to research.

The data analysis started with step 1 which was the transcription of the responses to the questions asked during the interviews. This was done in a format (Microsoft Excel) where the researcher could view the responses to the questions in a combined view,

sequenced by interview number. This is illustrated in Table 2 below. The output of the data transcription comprised raw text data which formed the basis for the resultant analysis.


Table 2: Illustration of the format used for interview data transcription

Interview Questions	Interviewee Number		
	1	2	3
What is entrepreneurship?	XX	XX	XX
What does education mean?	XX	XX	XX
How did the formal education you receive help you become an entrepreneur?	XX	XX	XX

The researcher then proceeded to step 2 which entailed extracting each question from the format illustrated in Table 2 to show a view of each question by interviewee individually. This is illustrated in Table 3 below:

Table 3: View of transcribed data by specific interview questions



Interview Question	Interviewee number		
	1	2	3
What is entrepreneurship?	Xx	Xx	xx

The final step entailed the identification of key sub themes per question per interviewee from the data gathered. The key sub themes were subsequently bolded as illustrated in Table 4 to assist with identification, pattern recognition and count facilitation. The sub themes identified were based on the researchers interpretation in relation to the question answered. The initial sub themes identified were then coded into themes where applicable. These themes were then rank ordered to provide an understanding of the initial, unstructured data based on the number of interviewees who mentioned them as well as the number of times they were mentioned by the interviewees. At times, the totals did not tally the sample size nor did the percentages tally to 100% as interviewees often had more than one opinion or multiple answers to a given question. Where possible, the themes were ranked by number of times mentioned where the count of interviewees was the same. The coding can be viewed as Appendices 3 – 14.

Table 4: Illustration of construct identification

Interview question	Interviewee number		
	1	2	3
How did the formal education you receive help you with developing these characteristics?	Zero, very little	Educational will give you the tools to have an imagination or creative thinking and that what his formal education as an architect did	Cant teach integrity and passion via education
	His education was very traditional, standard and boring	It will give you certain tools – know how , the guidance, or the knowledge to work out the business plan	Resilience, creative problem solving and financial stuff you can teach

4.9 Research Reliability and Validity

The key premise of research reliability is consistency (Saunders & Lewis, 2012). The ways in which data is collected and analysed must be consistent in a way that if a study is replicated by another individual using the same data collection and analysis methods, the results should be the same or similar (Saunders & Lewis, 2012). To ensure reliability, the interview guide and its subsequent design for the research study endeavoured to ensure a level of uniformity and consistency across all the interviews carried out with the entrepreneurs in terms of themed questions.

Validity relates to the notion of whether “the research findings are really about what they profess to be about” (Saunders & Lewis, 2012, p. 127). Creswell & Miller (2000) highlight that providing an “audit trail” (Creswell & Miller, 2000, p. 128) is a way of ensuring validity for a research study. An audit trail ensures that a researcher provides “clear documentation of all research decisions and activities” (Creswell & Miller, 2000, p. 128). To ensure validity, the researcher has provided this in chapter 4 (section 4.8 as an example) as well as in the appendices (Creswell & Miller, 2000) of this research study which includes the coding tables, the consent forms etc.

4.10 Limitations

- i. Cross sectional nature of study – the research was conducted at one period in time. Longitudinal studies can enhance the understanding of the link between education and entrepreneurship (Dickson *et al*, 2008)
- ii. Heterogeneity is a persistent challenge when conducting research in entrepreneurship (Sarasvathy & Venkataraman, 2011). Entrepreneurs are different and the nature of their differences are unpredictable (Sarasvathy & Venkataraman, 2011)
- iii. The context for the study is South Africa with Johannesburg being the region for the population. Results of the study may not be generalizable as the differences in regions and countries could lead to different outcomes in terms of education and its link to entrepreneurship (Dickson *et al* 2008)
- iv. The sampling method chosen results in selection bias. This method does not allow for a statistical representation of the population
- v. Due to the nature of qualitative research, data collected is at the risk of being subjective

Chapter 5: Results

5.1 Introduction

This chapter presents the results of the research that was conducted using the methodology described in Chapter 4. An overview of the sample marks the beginning of this chapter followed by a brief paragraph on entrepreneurial triggers which emerged from the data gathered. The result per research question then follows as outlined earlier in Chapter 3. The responses to the interview questions are grouped and presented in relation to the research questions. This chapter subsequently ends with a conclusion.

5.2 Overview of the sample

5.2.1 Entrepreneurial experience and industry representation

As highlighted in Chapter 4, the sample included 13 Johannesburg based entrepreneurs. These entrepreneurs varied across industries with the youngest being 29 years of age and the oldest being 57 years of age. Table 5 illustrates the various industries represented by the entrepreneurs interviewed as well as their entrepreneurial experience in years. Their collective entrepreneurial experience at the point of the last interview tallied 270 years with the length of formal plus informal time being an entrepreneur ranging from 2 years to 40 years.

Table 5: Sample Industry Representation and Entrepreneurial Experience

Interviewee	Industry	Entrepreneurial Experience
Interviewee 1	Restaurant	40
Interviewee 2	Value Added Services and Incentives	17
Interviewee 3	Digital/E Commerce	18
Interviewee 4	Hospitality	16
Interviewee 5	Entertainment (hotel and adventure) and Financial Services	30

Interviewee 6	Construction	18
Interviewee 7	Financial Services and Business Process Outsourcing	11
Interviewee 8	Fast Food	2
Interviewee 9	Call Centre/Financial Services	23
Interviewee 10	Consumer Internet	6
Interviewee 11	Logistics	30
Interviewee 12	Training and Development, Production	40
Interviewee 13	Financial Technology (Fintech)	19

5.2.2 Nature of the sample

The researcher was privileged to leverage insight from one of the founders of Nandos (a popular chicken fast food chain), the founder of the Local Grill in Parktown which was rated the best steakhouse in Gauteng, South Africa in 2015, a fellow GIBS female MBA graduate who completed her MBA in 2012, started her business in 2013 and has seen 100% year on year growth since then, the chairman of OUTA who has been an entrepreneur for the last 40 years and one of the founders of a multi, global award winning South African call center amongst many other successful entrepreneurs.

5.2.3 Entrepreneurial triggers

Upon analysis of the data, themes emerged which the researcher termed entrepreneurial triggers. These triggers were the reasons the entrepreneurs had exploited the opportunities they had discovered in the industries they are currently in. These reasons were deemed important by the researcher as they alluded to other potential reasons for entrepreneur creation or enablement. The triggers that emerged from the interviews are one of the hallmarks of qualitative research as mentioned in section 4.2 of this research study. Table 6 provides a summary and the context within which the South African entrepreneurs operated within below:

Table 6: Entrepreneurial Triggers

Rank	Trigger	Count	Number of interviewees	%
1	Passion/Interest	4	13	31
2	Prior knowledge of industry	3	13	23
3	New idea	2	13	15
3	Personal	2	13	15
3	Entrepreneurial by nature	2	13	15

Personal included the death of a spouse and the father in law of interviewee 6 identifying a problem in the construction industry to which interviewee responded with a solution and subsequent business.

5.3 Result per research question

5.3.1 What is entrepreneurship and how is education acquired from a South African entrepreneur viewpoint?

Research question 1 intended to ascertain the views of South African entrepreneurs on what entrepreneurship is and how education is acquired based on the constructs identified within the literature review. This was to ascertain, based on the South African context, if South African views are different or in line with the literature regarding what entrepreneurship is and the ways of acquiring education.

5.3.1.1 Entrepreneurship

From an entrepreneurship perspective, the constructs identified via the interviews together with a count and percentage that aided with interpretation is illustrated in Table 7 below. It is evident that most interviewees (83%), within a South African context, believed that entrepreneurship has something to do with opportunity discovery. 66% believed it has to do with creation and the exploitation of an opportunity discovered. Creation related to many aspects with direct quotes of some of the interviewees listed below for illustration purposes:

Interviewee 1: “*Someone who creates something from nothing*”

Interviewee 2: “A person who has blind faith in his/her own ability that *creates a vision that becomes a reality*”

Interviewee 4: “*Creates an environment where there is going to be growth, whether it be economically or just systematically*”

Interviewee 9: “*Somebody who creates jobs or creates a service*”



Table 7: Results for South African Entrepreneurship constructs

Rank	Construct	Count of number of Interviewees	%	Total Interviewees	How many times mentioned
1	Opportunity discovery	11	85	13	14
2	Creation	9	69	13	14
3	Opportunity exploitation	9	69	13	9
4	Business Start Up	8	62	13	8
5	Wealth	5	38	13	6
6	Do something better/different/quicker	3	23	13	6
7	Not always business start up	3	23	13	4
7	Problem Solving	3	23	13	4
8	Involves Risk	2	15	13	4
9	Income and profit generating venture	2	15	13	2
9	I don't know	2	15	13	2
10	Constraint discovery	1	8	13	1
10	Run an independent business	1	8	13	1
10	Not bound by a 9-5	1	8	13	1
10	Doesn't do what he is not good at	1	8	13	1
10	Self employment	1	8	13	1
10	Must be multi faceted	1	8	13	1

5.3.1.2 Education

From an educational perspective, the constructs identified by the interviewees together with a count and percentage that aided with interpretation are illustrated in Table 8 below.

46% of interviewees identified either directly or indirectly, two ways that education can be acquired based on their experience and context. These included formal and informal education. A further 38% of interviewees were able to identify either directly or indirectly, three ways education can be acquired based on their experience and context. These included formal, informal and non-formal education. 15% of interviewees identified either directly or indirectly, one way in which education can be acquired based on their experience and context namely, formal education.

Table 8: Results for education constructs

Rank	Construct	Count of number of interviewees	Total interviewees	%
1	Formal and Informal Education	6	13	46%
2	Formal, Informal and Non Formal Education	5	13	38%
3	Formal Education	2	13	15%
Not applicable	Informal Education	0	13	0%
Not applicable	Non Formal Education	0	13	0%

The interviewees were also asked how they had specifically acquired their education. Table 9 shows that 38% of the interviewees acquired their education through a combination of formal, informal and non formal methods in South Africa. 31% acquired their education through formal and non formal methods and 15% acquired their education through formal and informal methods in South Africa.

Table 9: Results for how South African entrepreneurs acquired education

Method	Count of Interviewees	Number of Interviewees	%
Formal, Informal and Non Formal	5	13	38
Formal and Non Formal	4	13	31
Formal and Informal	2	13	15
Formal	1	13	8
Informal	1	13	8
Non Formal	0	13	0

To illustrate the above through examples from the interviews, interviewee 3 had received formal education through a university and non formal education by self teaching to code websites by reading HTML textbooks. Interviewee 8 was educated formally through the schooling system, informally by running a Chicken Licken franchise and non formally by reading business books.

5.3.1.3 Conclusion

The result to research question 1 confirms that South African entrepreneurs explain entrepreneurship to be the activity of opportunity discovery; creation; opportunity exploitation and business start up. They highlight that education can be acquired through formal, informal and non formal ways in South Africa. Lastly, they have specifically educated themselves in South Africa through a combination of methods as highlighted in Table 9.

The result for research question 2 now follows.

5.3.2 In the interviewees' opinion, how has education been an enabler or creator of entrepreneurship in South Africa?

The intention of research question 2 was to solicit from the interviewees if education had been an enabler or if it created their entrepreneurship journeys. The literature revealed that education does enable entrepreneurship by providing higher self confidence in an individual, enhances human capital, and provides cognitive skills to improve evaluation and exploitation of opportunities and increases attitude and perceived behavioral control.

Three questions were posed to the interviewees to ascertain the answer to research question two. The first question was the following:

5.3.2.1 How did the education you receive help you to become an entrepreneur?

The unstructured text data was summarized into two themes, namely "It helped" and "I don't think it did" with the summary of responses depicted in Table 10 below.

The coding for Table 10 can be viewed as Appendix 3. The first interpretation of the data resulted in 85% of the interviewees believing the formal education they had received had helped them in becoming an entrepreneur. 46% of the interviewees were not convinced their formal education had helped them become an entrepreneur. The percentages do not add to 100% nor does the count of interviewees add to the total sample of 13 due to some interviewees having more than one opinion. In order to arrive at the interpretation mentioned above, the researcher used the logic of tallying all responses in favor of "it helped" and all responses in favor of "it did not help" even though some interviewees alluded to both responses in their answer to the interview question. The responses received for a positive educational impact on entrepreneurship was overwhelming.

Table 10: Themes relating to the impact of formal education on entrepreneurship

Theme	Count of interviewees	Number of interviewees	%	Times mentioned directly/indirectly
It helped	11	13	85	17
I don't think it did/Cant see how it helped/did not give much skills	6	13	46	9
How did formal education help?				
Confidence	8	13	62	10

Further interpretation of the data from interviewees who confirmed that formal education helped them become an entrepreneur explained that knowledge (55%) was a benefactor of formal education. Knowledge included financial, legal etc. This was followed by 27% confirming that formal education provided a foundation. These results and the rest of the results are depicted in Table 11:

Table 11: Results for formal education constructs that enabled entrepreneurship

Rank	Construct	Count of interviewees	Number of interviewees	%
1	Knowledge	6	11	55
2	Provides a foundation	3	11	27
3	Provided credibility	1	11	9
3	Helped with opening a business	1	11	9
3	Make fewer mistakes	1	11	9
3	Deal with people who already had money	1	11	9

The coding for Table 11 can be viewed in appendix 4.

The second question asked the interviewees the following:

5.3.2.2 Did it make it easier for you to become an entrepreneur than if you did not have any formal education?

69% of the interviewees agreed that it was easier becoming an entrepreneur as a result of having a formal education as depicted in Table 12. Only one interviewee believed that formal education did not make it easier to become an entrepreneur. The reason provided was that the interviewee felt that he was always an entrepreneur. 23% of the interviewees were unsure if formal education made it easier to become an entrepreneur than if they did not have any formal education.

The result clearly favors having a formal education with no specific subject or course identified based on the variety of formal education the interviewees have had.

Table 12: Results for “did it make it easier for you to become an entrepreneur than if you did not have any formal education?”

Interviewee number	Yes	No	Unsure
Interviewee 1			1
Interviewee 2	1		
Interviewee 3	1		
Interviewee 4	1		
Interviewee 5		1	
Interviewee 6	1		
Interviewee 7	1		
Interviewee 8	1		
Interviewee 9			1
Interviewee 10			1
Interviewee 11	1		
Interviewee 12	1		
Interviewee 13	1		
Count	9	1	3
%	69%	8%	23%

The third question posed to the interviewees was:

5.3.2.3 What are the reasons that formal education either creates or has no impact on entrepreneur creation?

This question was interpreted in two stages. The first stage provided an indication of the perceptions of the interviewees in terms of formal education and whether it either creates entrepreneurs or does not create entrepreneurs. Table 13 below, clearly shows that the majority of the interviewees (69%) believe that formal education does not create entrepreneurs. 15% of the interviewees were indifferent and 15% of the interviewees were unsure if formal education could or could not create entrepreneurs.

Table 13: Results for whether education creates or does not create entrepreneurs

Interviewee number	Yes	No	Both	Unsure
1		1		
2		1		
3		1		
4				1
5		1		
6		1		
7		1		
8			1	
9				1
10			1	
11		1		
12		1		
13		1		
Count	0	9	2	2
%	0%	69%	15%	15%

Based on the above result, Table 13 depicts why the 69% believe that formal education does not create entrepreneurs. As there was no outright reason (greater than 50%), the interpretation was based on the logic of prioritizing the highest number of interviewees that confirmed a reason. 33% of the interviewees believed that being an entrepreneur is innate. 22% of the interviewees are of the belief that formal education lacks creative thinking and is not conducive to entrepreneurship creation. 11% believe that formal education lacks a practical element and is detrimental to entrepreneur creation. A further 11% believe that formal education provided job comfort. The percentages do not tally to 100% nor does the total interview count tally the sample size as the interviewees had more than one opinion. In order to arrive at the interpretation mentioned above and in Table 14, the researcher used the logic of tallying all reasons provided by the interviewees even though some interviewees

provided more than 1 reason to the interview question. The coding for Table 14 can be viewed in appendix 5.

Table 14: Results for reasons why formal education does not create entrepreneurs

Rank	Reason	Count of interviewees	Total number of interviewees	%	Number of times mentioned
1	Innate	3	9	33	4
2	Lack of creative thinking	2	9	22	2
3	Lack of practical education	1	9	11	2
3	Provides job comfort	1	9	11	2
4	Rational and analytical thinking not conducive to entrepreneur creation	1	9	11	1
4	Borne out of necessity	1	9	11	1
4	Abiding by the rules	1	9	11	1
4	Serves as a filter	1	11	9	1

5.3.2.4 Conclusion

The findings for research question 2 indicate that education, specifically, formal education, enables entrepreneurship in South Africa by providing confidence, knowledge and a foundation for entrepreneurship. Also, the perception of South African entrepreneurs is that education does not create entrepreneurs in South Africa mainly because they believe that entrepreneurship is innate.

The result of research question 3 now follows.

5.3.3 Is there a specific level of education that can be linked to entrepreneurship in South Africa and how does it link to entrepreneurship?

Research question 3 sought to identify if the entrepreneurs interviewed could link their entrepreneurialism to a specific level of education in South Africa. The interview questions used to solicit the answer were the following:

5.3.3.1 How long have you been an entrepreneur?

The intention behind the question was twofold. The first was to establish a time in years (provided within the description section of this chapter) and the second, which formed the basis for the answer to the research question, was to link entrepreneurship to a level of education. There was a clear link between primary and secondary schooling and entrepreneurship with 61% of the interviewees providing confirmation (primary schooling at 38% plus secondary schooling at 23%) as indicated in Table 15 below. What was also interesting to note is 46% of the interviewees came from families who had their own businesses or were involved in business prior to the interviewees starting their own businesses.

Table 15: Results for the link between education and entrepreneurship

Construct	Count of interviewees	Total number of interviewees	%
Primary Schooling	5	13	38
Secondary Schooling	3	13	23
No tendencies – no link to formal education	3	13	23
Always had entrepreneurial tendencies/born with it	1	13	8
Had tendencies prior to starting a business – no link to formal education	1	13	8
TOTAL	13	13	100
Family had businesses/involved in businesses prior to starting their own business	6	13	46

5.3.3.2 How has the level of education (mentioned in 5.3.3.1) enabled entrepreneurship in South Africa?

To unpack this research question, the researcher embarked on first identifying what the competencies/characteristics of entrepreneurs are from the interviewees. The results are depicted in Table 16. The coding for Table 16 can be viewed as Appendix 6.

Flexibility, being creative, determined, risk taking/appetite and being proactive were clear competencies/characteristics of entrepreneurs with more than 50% of interviewees providing confirmation for each construct.



Table 16: Results for competencies/characteristics of entrepreneurs

Rank	Construct	Count of interviewees	Total interviewees	%	Number of times mentioned
1	Flexible	12	13	92	14
2	Creative	11	13	85	11
3	Risk	8	13	62	8
3	Proactive	8	13	62	8
4	Determination	7	13	54	9
5	People/Relationships	4	13	31	8
6	Problem solver	3	13	23	3
7	Optimism	2	13	15	2
7	Integrity	2	13	15	2
7	Ability to learn	2	13	15	2
7	Doer	2	13	15	2
7	Speed	2	13	15	2
7	Disciplined	2	13	15	2
7	Positive	2	13	15	2
8	Explorative mindset	1	13	8	1
8	Analytical	1	13	8	1
8	Impatient	1	13	8	1
8	Good with numbers	1	13	8	1
8	Passion	1	13	8	1
8	Humility	1	13	8	1
8	Tolerance for failure	1	13	8	1
8	Good stress management	1	13	8	1
8	Self efficacy	1	13	8	1
8	Tough	1	13	8	1
8	Ability to sell	1	13	8	1

Once the characteristics were identified, the researcher proceeded to ask the following question to ascertain if the education received by the interviewees had assisted with developing these characteristics:

5.3.3.3 How did the education you receive help you with developing/attaining these competencies/characteristics?

Interpretation of the data first aided in confirming that formal education did help with developing the competencies/characteristics identified earlier as shown in Table 17 with 77% of the interviewees believing so and thus enabled entrepreneurship. The coding for Table 17 can be viewed as Appendix 7. The percentage does not total 100% nor does the count of interviews total the sample size as interviewees had more than one view and in some instances, believed that certain characteristics developed were linked to formal education whereas other characteristics were not as illustrated below:

Interviewee 1: *“zero, very low”*

Interviewee 3: *“Cant teach integrity and passion via education”, “Resilience, creative problem solving and financial stuff you can teach”*

Table 17: Results for whether formal education helped/did not help with competency/characteristic development

Construct	Count of interviewees	Number of interviewees	%	Number of times mentioned directly/indirectly
It helped	10	13	77	16
Did not help	5	13	38	5
Depends/Innate	1	13	8	2

Table 18 illustrates how formal education had assisted the interviewees with entrepreneurial competency/characteristic development. The coding for Table 18 can be viewed as Appendix 8. 31% believed it helped with “know how”, which, as described by the interviewees, related to the following:

Interviewee 6: *“Formal education provided a good base”, “Have a network and a source of information”*

Interviewee 9: *“Helped to give a framework to hang things on”*

Interviewee 10: *“Enables you to calculate and weigh up the risk you are taking”*

A further 31% believed that formal education aided with creativity and creative thinking. 23% of interviewees believed it helped them but did not explain how. In hindsight, the researcher acknowledges that more probing was required at this point.

A further 23% confirmed that formal education did not help with characteristic development. The characteristics they have are innate.

Table 18: Results for how formal education helped/did not help with competency/characteristic development

Rank	Construct	Count of Interviewees	Number of interviewees	%	Number of times mentioned directly/Indirectly
1	Know how	4	13	31	6
2	Creativity/Creative thinking	4	13	31	4
3	Helped but did not explain how	3	13	23	3
3	Did not help/Innate	3	13	23	3
4	Social skills	2	13	15	2
4	Source of information	2	13	15	2
5	Resilience	1	13	8	1
5	Financial	1	13	8	1

5.3.3.4 Conclusion

The results indicate that entrepreneurship can be linked to formal education with specific levels being primary and secondary schooling. These levels of schooling assisted entrepreneurship by aiding with competency/characteristic development through knowledge and creativity/creative thinking.

The result to research question 4 now follows.

5.3.4 How does education impact entrepreneurship in terms of career choice in South Africa?

Research question 4 sought to understand if education could be an inhibitor of entrepreneurship in South Africa. The following question was posed to the sample:

5.3.4.1 How do you think the formal education you received could have deterred you from becoming an entrepreneur?

Most interviewees first answered by indicating if they thought there was any impact on entrepreneur choice as a career as depicted in Table 19. The coding for Table 19 can be viewed as Appendix 9. 62% of the interviewees believed that formal education could have deterred one from becoming an entrepreneur whereas 23% believed that formal education would not deter one from becoming an entrepreneur. The remaining interviewees believed that it could work either way and that it did not matter.

Table 19: Results for formal education being a deterrent to entrepreneurship

Rank	Construct	Count of interviewees	Total interviewees	%
1	I think it could have	8	13	62
2	Did not deter	3	13	23
3	Can work both ways	1	13	8
3	Didn't matter	1	13	8

The interviewees then proceeded to explain why they thought it could deter/not deter an individual from entrepreneurship. For the interviewees who believed that formal education could deter one from entrepreneurship, 50% explained that there is a sense

of conformity with formal education as depicted in Table 20. The coding for Table 20 can be viewed as Appendix 10. Direct quotes from the interviewees provide more context:

Interviewee 1: *“You get channeled into a particular way as a CA”*

Interviewee 9: *“A formal education makes you walk down a certain path, you get institutionalized by formal education”*

Interviewee 12: *“Formal education is conformative”*

38% of the interviewees who indicated that formal education could be a deterrent to entrepreneurship cited that formal education decreases risk. The context is best illustrated via direct feedback from the interviewees:

Interviewee 1: *“the risk of starting your own business as opposed to earning a salary as a CA is quite enticing; you don’t want to risk it”*

Interviewee 5: *“Formal education gives you security”*

38% believed that formal education makes an individual more attractive in the corporate world.

Table 20: Results for reasons that formal education can deter entrepreneurship

Rank	Construct	Count of interviewees	Total interviewees	%	Number of times mentioned
1	Leads to conformity	4	8	50	4
2	Decreases risk	3	8	38	4
3	More attractive in the corporate world	3	8	38	3

For the interviewees who believed that formal education did not deter them from becoming entrepreneurs, 67% believed that there was a strong, personal desire to become an entrepreneur and 33% did not provide a conclusive reason as depicted in Table 21. The coding for Table 21 can be viewed as Appendix 11. It is important to note that there were fewer interviewees who believed that formal education does not deter an individual from entrepreneurship. The reasons provided should therefore be viewed and interpreted in a cautious manner due to low volumes.

Table 21: Results for reasons of education not being a deterrent to entrepreneurship

Rank	Construct	Count of interviewees	Total number of interviewees	%	Number of times mentioned
1	Strong personal desire	2	3	67	2
2	No conclusive reason	1	3	33	1

5.3.4.2 Conclusion

The result to research question 4 confirms that formal education can be a deterrent to entrepreneurship as a career choice in South Africa due to the conformity it leads to, risk minimisation and the corporate attractiveness it brings.

The result of research question 5 is now presented.

5.3.5 What are the types of education that could create entrepreneurs and how do they do so?

The research question sought to find if there are other ways of creating entrepreneurs through education with a specific focus on types of education that is, formal, informal and non formal. There were 3 sub questions asked within the interview that assisted in answering this question. The first sub question was as follows:

5.3.5.1 How did you learn to become an entrepreneur?

Interpretation of the responses received for this first sub question related to research question 5 took 4 steps. The first step coded the unstructured data into the constructs listed in Table 22. The coding for Table 22 can be viewed as Appendix 12. For simplification of understanding, Table 22 provides a view of how many interviewees confirmed the constructs that helped them learn to become an entrepreneur. 85% of the interviewees confirmed that “doing” was one of the better ways of learning to become an entrepreneur. This was followed by “mentorship” with 62% of the interviewees and “reflection” with 54% of the interviewees. Interestingly, 31% of the interviewees believed that being an entrepreneur is innate; it is something that you cannot learn.

Table 22: Results for how South African entrepreneurs learned to become an entrepreneur

Rank	Construct	Count of interviewees	Total Interviewees	%	Number of times mentioned
1	Doing	11	13	85	11
2	Mentorship	8	13	62	9
3	Reflection	7	13	54	7
4	Innate	4	13	31	9
5	Observation	4	13	31	5
6	Family	2	13	15	2
6	Other Entrepreneurs	2	13	15	2
6	Formal Education	2	13	15	2
7	Trial and Error	1	13	8	2
7	Desperation	1	13	8	1
7	Personal Development	1	13	8	1
8	Childhood Upbringing	1	13	8	1

Step 2 of the interpretation involved further coding. The constructs were then coded based on the different ways of acquiring education as identified in Chapter 2. These include formal, informal and non formal education. Table 23 provides this view below.

Table 23: Coding of learning constructs

Construct	Code
Doing	Informal
Mentorship	Informal/Non Formal
Innate	Other
Observation	Non Formal
Family	Informal/Non Formal
Other entrepreneurs	Non Formal
Formal Education	Formal
Reflection	Informal
Desperation	Other
Trial and Error	Informal
Personal Development	Non Formal
Childhood Upbringing	Informal

Step 3 proceeded to quantify the information provided in Table 23. This is presented in Table 24 below:

Table 24: Results for the coding of Table 23

Code	Count	%
Informal	4	33
Non Formal	3	25
Informal/Non formal	2	17
Other	2	17
Formal	1	8
Total	12	100

The final step resulted in 3 codes as presented in Table 25. It is clear that 75% of the learning of entrepreneurship by the South African entrepreneurs is based on informal and non formal education with only 8% of learning based on formal education.

Table 25: Final results for which type of education has helped entrepreneurs learn entrepreneurship

Code	Count	%
Informal and Non formal	9	75
Other	2	17
Formal	1	8

The second sub question asked related to this research question sought to understand the following:

5.3.5.2 Why is doing an effective/ineffective way of becoming an entrepreneur?

Doing is an example of informal education as coded in Table 23. “Doing”, as a form of informal education, was regarded as an effective way of becoming an entrepreneur by the interviewees because it is a quicker way of learning (38% of the interviewees) and it is a way of proving a concept (31%) as illustrated in Table 26 below. The coding for Table 26 can be viewed as Appendix 13. The total count does not add to the sample size nor does the percentage add to 100% as some of the interviewees had more than one view. The “unclear” construct related to feedback from interviewees that could not be easily interpreted.

Table 26: Results for why “doing” is an effective way to become an entrepreneur

Rank	Construct	Count of Interviewees	Total interviewees	%	Number of times mentioned
1	Learn quicker	5	13	38	5
2	Way to prove a concept	4	13	31	5
3	Action orientated	2	13	15	2
3	Unclear	2	13	15	N/A
4	It is a driver	1	13	8	1
4	It is a way to learn what people want	1	13	8	1
4	Linked to risk	1	13	8	1

The last sub question asked the interviewees the following:

5.3.5.3 In your experience, what would you suggest are the best ways to learn to become an entrepreneur?

50% of the interviewees believed that “doing” or “do it” is one of the better ways of learning to become an entrepreneur as depicted in Table 27 below. The coding for Table 27 can be viewed as Appendix 14.

Table 27: Results for the best ways to learn to become an entrepreneur

Rank	Construct	Count of Interviewees	Total Interviewees	%	Number of times mentioned
1	Do it	6	13	46	6
2	Surround ones self with like minded people	3	13	23	4
3	Mentoring	3	13	23	4
3	Practical	2	13	15	2
3	Observation	2	13	15	2
4	Survival environment	1	13	8	3
5	School Activities	1	13	8	2
6	Read	1	13	8	1
6	Encourage kids to save	1	13	8	1
6	Failure	1	13	8	1

5.3.5.4 Conclusion

The result to research question 5 suggests that informal and non formal education can create entrepreneurs as these are the best ways of learning to become an entrepreneur as perceived by South African entrepreneurs.

5.4 Summary of Results

Table 28: Summary of results for the research questions

Research Question	Result
1. What is entrepreneurship and how is education acquired from a South African viewpoint?	<ul style="list-style-type: none"> • Entrepreneurship: It is about opportunity discovery, exploitation, creation and business start up • Education: Formal, informal and non formal
2. In the interviewees' opinion, how has education been an enabler or creator of entrepreneurship in South Africa?	<ul style="list-style-type: none"> • Interviewees confirmed that formal education is an enabler of entrepreneurship in South Africa • Formal education aids with providing confidence, knowledge, and a foundation • Formal education does not create entrepreneurs in South Africa
3. Is there a specific level of education that can be linked to entrepreneurship in South Africa and how does it link to entrepreneurship?	<ul style="list-style-type: none"> • Primary and secondary schooling • These levels aid with competency/characteristic development by providing knowledge, creativity/creative thinking
4. How does education impact entrepreneurship in terms of career choice?	<ul style="list-style-type: none"> • Interviewees confirmed that education does impact entrepreneurship as a career choice • Leads to conformity, minimizes risk
5. What are the types of education that could create entrepreneurs and how do they do so?	<ul style="list-style-type: none"> • Informal and non formal education • By doing • Doing is a quicker way of learning, way of proving a concept

Chapter 6: Discussion of Results

6.1 Introduction

This chapter discusses the results presented in Chapter 5 in relation to the literature reviewed in Chapter 2 to provide answers to the research questions presented in Chapter 3. In other words, the literature reviewed in Chapter 2 is used to explain the results presented in Chapter 5 in response to the research questions presented in Chapter 3. The format of this chapter is mainly headed by the research questions previously mentioned in chapter 3. The answers to the research questions are structured in a way that the findings are first mentioned followed by how the findings relates/is explained/not explained by the literature and a conclusion to the research question.

6.2 Research Questions

6.2.1 Research Question 1: What is entrepreneurship and how is education acquired from a South African entrepreneur viewpoint?

The discussion is broken down into the 2 parts of the question. Entrepreneurship is discussed first followed by education.

6.2.1.1 Entrepreneurship explained from a South African perspective

To the best of the researchers knowledge, there did not appear to be much prior research on the viewpoints of what entrepreneurship is from a South African perspective and context. The researcher ascertained this by searching for a South African viewpoint within the academic databases. Table 7 of Chapter 5 shows that South African entrepreneurs largely perceive entrepreneurship to be the activities or acts of opportunity discovery, creation, the exploitation of opportunities and business start up as experienced through their entrepreneurship journeys. What was interesting to note is that 23% of the interviewees believed that entrepreneurship does not necessarily lead to a business start up. Interviewee 7 explained as follows:

“doesn’t necessarily lead to a new business or a new idea, and I don’t think every entrepreneur will start their own business necessarily because it can be a work together or you in a business and you looking at opportunities and then from there”

Even though these interviewees acknowledged that entrepreneurship is not necessarily about business start up, they did not disagree with business start up as a consequence of entrepreneurship.

The results largely align with the literature. Table 29 recaps the explanations of entrepreneurship by scholars as well as how the explanations have been improved over time:

Table 29: Recap of explanations of entrepreneurship

Explanations	Researcher/s
“Process of starting a business or an organisation	Pantea (2016)
Augmented previous explanations by adding the concept of “patents as well as the thought process behind these creations”	Jimenez, Palmero-Camara, Gonzalez-Santos, Gozalez-Bernal, & Jimenez-Eguizabal (2015)
“A social process involving the efforts of individuals in enterprise activities”	O’Connor (2013)
Augmented Shane and Venkataraman (2000) and Fillis and Rentschlers (2010) explanations by adding “the action of venture creation”	Jain (2011)
“The process of creating value for business and social communities by bringing together unique combinations of public and private resources to exploit economic, social or cultural opportunities in an environment of change”	Fillis and Rentschler (2010)

<p>“The study of sources of opportunities, the processes of discovery, evaluation, and exploitation of opportunities, the set of individuals who discover, evaluate, and exploit them”</p>	<p>Shane and Venkataraman (2000)</p>
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Opportunity discovery and opportunity exploitation ranked 1 and 3 respectively in the findings. These are confirmed by the explanation put forward by Shane and Venkataraman (2000) and is a part of the Fillis and Rentschler (2010) explanation. Creation ranked second by the South African entrepreneurs. Even though this was not included as an actual word in the explanation adopted by this study, it was alluded to in the explanation used for this study and is confirmed by Fillis and Rentschler (2010), Jain (2011) and Jimenez *et al* (2015). Business start up which was ranked fourth in the findings was ably supported by Pantea (2016).

Most of the findings in Table 7 are supported directly or indirectly by the explanations provided in the literature. This is substantiated by the following quotes from the interviewees:

“When most entrepreneurs look at something, there must be a shorter way from a to b and as they approach that journey, they sometimes discover c, d and e as they move forward in their pursuit of this solution. They see that there must be a different approach” (Interviewee 2)

“I think my kind of definition of an entrepreneur is someone that is always looking to create opportunities either from existing infrastructures or to create start-ups which is from nothing” (Interviewee 1)

6.2.1.2 Conclusion

The data gathered from the interview process and subsequent results supported the literature regarding the different explanations as well as the constructs within the explanations from a South African context. The results have also confirmed that multiple explanations of entrepreneurship are supported but they ultimately allude to the same/similar meaning. The findings from this part of research question 1 indicated

that, from a South African perspective and context, there were no material differences to the explanation of entrepreneurship when compared to the entrepreneurship literature. South African entrepreneurs largely identified that entrepreneurship in South Africa has to do with the acts of opportunity discovery, opportunity exploitation, creation and business start up thereby answering the entrepreneurship part of research question 1.

6.2.1.3 Education

Table 8 of Chapter 5 summarised the perceptions of the South African entrepreneurs in terms of the different ways education can be acquired. Most identified formal and informal ways of education through examples. A few quotes that brings this into life based on their context:

“There is education that will drive you into a direction/certain direction in life, hopefully your passion eg. Lawyer or doctor” (Interviewee 5)

“On the job training - one of the best training you could possibly get” (Interviewee 11)

“formal training imparted through institutional structures as opposed to informal, self taught” (Interviewee 12)

Table 9 of Chapter 5 also indicated the specific methods the South African entrepreneurs had acquired their education in South Africa with a combination of formal, informal and non formal methods being the majority.

The results to this part of the research question aligns to the literature. Firstly, education can be acquired through formal, informal and non formal ways as explained by Paduraru (2013), Melnic & Botez (2014) and Farahani *et al* (2014). The examples provided by the interviewees related to intricate processes that had an impact on how their human personalities were formed and developed (Melnic and Botez, 2014). The education received by the interviewees demonstrated concepts of “training, teaching, learning, competencies and other accomplishments (Lobler, 2006, p.25). A quote by interviewee 1 puts this into perspective:

“Education is being taught, teaching, learning or absorbing”

The interviewees also confirmed the 3 constructs commonly associated with education as described by Waite in 2016. These include “qualification”, “socialisation” and “subjectification”. To recap, qualification is connected with the “attainment of skills, knowledge and values”. Socialisation relates to behaving in line with current traditions as a result of education (a sense of some sort of conformity) and subjectivity is based on the perception of the individual in relation to the education received (Waite, 2016). Quotes that made the literature come alive are listed below:

“Informal education is skills - the ability to do stuff” (Interviewee 3)

“Normal school gives you the basics to read and write and calculate your profit”
(Interviewee 7)

“It can be formal and informal – all of these things will condition you to get to a certain point” (Interviewee 2)

“Education is vital if understood to be for the right goal or the right reasons”
(Interviewee 4)

6.2.1.4 Conclusion

The data collected and subsequent results support the literature in Chapter 2 relating to how an individual can educate oneself as well as the different ways this can happen in South Africa namely, formally, informally and non formally thereby answering the education piece of the research question 1.

6.2.2 Research Question 2: In the interviewees’ opinion, how has education been an enabler or creator of entrepreneurship in South Africa?

6.2.2.1 Education: Enabler or creator?

To lay the context for this research question, Table 10 of Chapter 5 overwhelmingly confirmed that South African entrepreneurs perceived education, specifically, formal

education, as an enabler of entrepreneurship, not a creator of entrepreneurship. A few quotes that substantiated this finding are mentioned below:

“I don’t think it did, I mean I don’t think the education guided me in any way. In my day, education was just a formal thing you went and did and you ticked it off and made your parents happy and that was it” (Interviewee 1)

“It moulds you to know where to find a resource because you need to apply a specific discipline in that specific area. See it gives you the freedom of knowledge, you can actually go and source a specific need when required as you build the business” (Interviewee 2)

“I don’t think I have ever been taught to be an entrepreneur and I don’t think the formal education I received was either the catalyst for me to be an entrepreneur. It may have allowed me to be a better one through skills I learned through engineering” (Interviewee 13)

Interviewee 1 highlighted a vital point in terms of the context of his formal education. This will be discussed later in Chapter 7 under the future recommendations section.

Table 12 of Chapter 5 also convincingly confirmed that formal education made it easier for the individuals to become entrepreneurs thereby indicating that it enables entrepreneurship. Table 13 of Chapter 5 showed that 69% of the interviewees believed that education does not create entrepreneurs because they believed that entrepreneurship is innate – you are born an entrepreneur.

6.2.2.2 Confidence

More than 50% of the total interviewees confirmed that education, more specifically; formal education had helped them with their entrepreneurship journey as illustrated in table 10 in Chapter 5. Some of the interviewees had initially dismissed the impact formal education had had on their entrepreneurship journeys. After a few probes, the initial thoughts changed in some instances as the conversation progressed with more than 50% of the interviewees agreeing that formal education provided them with confidence. Interviewee 8 remarked:

“It gave me a level of confidence to be able to make fewer mistakes, so, to get success quicker and eliminate the unnecessary. The formal education, especially the MBA, increased my level of confidence”

The findings confirm that formal education provides confidence and this is the value to entrepreneurship in South Africa

6.2.2.3 Knowledge

Knowledge as illustrated in Table 11 of Chapter 5, emerged as a key benefactor of formal education with more than half of the interviewees who were pro formal education providing confirmation. Formal education had provided knowledge in the areas of accounting, legal, business and the platform for the search of resources. It is noted the knowledge provided in these areas were based on the focus areas of the South African entrepreneurs' formal education for example, tertiary education could have focused on a commerce qualification. As the entrepreneurs in the sample had a variety of focus areas within their formal education, this was not deemed an issue to interpretation. Quotes below to substantiate knowledge as a key take out from formal education to enable entrepreneurship:

“If you think about it, you learn how to think, you learn how to research, you learn how to solve problems in particular ways” (Interviewee 10)

“Did accounting in school, economics in tertiary, these helped with the understanding of the financial aspects of business” (Interviewee 11)

The findings for this research question are aligned to the literature. One of the reasons favoring a positive link between education and entrepreneurship is the confidence that education provides an entrepreneur (Jimenez *et al*, 2015). The Jimenez *et al* (2015) study therefore supports the findings of research study in terms of confidence. The knowledge and capabilities of an entrepreneur are increased by formal education (Jimenez *et al*, 2015). The Jimenez *et al* (2015) study therefore supports the findings of research study in terms of formal education providing knowledge to the entrepreneur.

The finding of knowledge as a benefactor of formal education is also explained by the “qualification” construct associated with education (Waite, 2016) and the skills

development approach highlighted by Josien & Sybrowsky (2013). Lastly, Human Capital Theory as a lens, helps to explain this finding in the sense the “acquired variable such as education” (Dickson *et al*, 2008, p. 240) in this research study, formal education and the knowledge that formal education provides could be “a determinant of decision choice” (Dickson *et al*, 2008, p. 240), in this case, entrepreneurship, and therefore, enabling entrepreneurship. The finding that formal education does not create entrepreneurs is supported by the skills development approach highlighted by Josien & Sybrowsky (2013) which argues that entrepreneurs are not created and the skills development approach helps entrepreneurs become better entrepreneurs.

6.2.2.4 Conclusion

It was established that education, more specifically, formal education, is indeed an enabler of entrepreneurship in South Africa and not a creator of entrepreneurs in South Africa. Formal education enables entrepreneurship in South Africa by providing confidence and knowledge. Formal education does not create entrepreneurs in South Africa as the findings indicate that entrepreneurs are born, not created albeit 33% of the sample believed so. The findings are also supported by the literature therefore concluding the answer to research question 2.

6.2.3 Research Question 3: Is there a specific level of education that can be linked to entrepreneurship in South Africa and how does it link to entrepreneurship?

6.2.3.1 Primary and Secondary Schooling

61% of the entrepreneurs interviewed could link their entrepreneurship journeys to primary and secondary schooling as mentioned in section 5.3.3.1 of this research study. The findings were inferred based on how formal education helped the entrepreneurs with their entrepreneurial journey. It must be noted that the primary and secondary schooling link did not “make” the entrepreneurs per say or lead to entrepreneurship as a choice. It can be noted that the primary and secondary schooling assisted with entrepreneurial characteristic development by providing knowledge, the ability to be creative/develop creative thinking (Table 18 of Chapter 5) and provided a

foundation for entrepreneurship (Table 10 of Chapter 5). Foundation related to structure and “stepping blocks”. Interviewee 5 mentioned that formal education provided basic skills and interviewee 12 alluded to numeracy skills as a benefactor of formal schooling.

The above suggested a positive link between primary and secondary schooling and entrepreneurship. These findings support the literature regarding the positive links between primary and secondary schooling/general education and entrepreneurship (Kolstad & Wiig, 2015; Jimenez *et al*, 2015). To recap, Jimenez *et al* (2015) confirms that education improves human capital and increases the knowledge and capabilities of entrepreneurs. Kolstad & Wiig (2015) confirms that primary education provides basic skills of literacy and numeracy required to acquire and use a number of other skills necessary to become a successful entrepreneur” (Kolstad & Wiig, 2015, p. 785)

6.2.3.2 Conclusion

The findings are explained and supported by the literature. Formal education in the form of primary and secondary schooling provides knowledge, a foundation and basic skills for entrepreneurship. This therefore provides evidence and concludes the answer to the research question 3. It must be noted that linking does not refer to creation of entrepreneurs in South Africa. This point was made in the conclusion to the previous research question.

6.2.4 Research Question 4: How does education impact entrepreneurship in terms of career choice in South Africa?

6.2.4.1 Formal education can be a deterrent to entrepreneurship

62% of the entrepreneur sample believed that formal education could be a deterrent to entrepreneurship in South Africa as shown in Table 19 of Chapter 5. These interviewees remarked the following:

“I think it could have. If I had passed CA (became a chartered accountant), then I probably would not have been an entrepreneur. Too much education can get you into a situation where you are very cosy, it's hard to change”. (Interviewee 1)

“it gives you that security” (Interviewee 2)

“Formal education gives you security, all right; in terms of you will be ok. So therefore, you get a guy that is a lawyer, that earns himself R20 000 a month, and he is quite happy with that” (Interviewee 5)

Table 20 of Chapter 5 confirms that half of the interviewees believe that formal education leads to conformity that is; formal education prepares you to become more of an employee than an employer. This is a broad statement because it is possible that individuals make a concerted decision to want to be an employee and therefore take the route of formal education to do so, that is, study law to become a lawyer, or accountancy to become an accountant. Going the corporate route suggests less risk than going the entrepreneurship route as mentioned by interviewee 8. Risk minimization was confirmed by 38% of the interviewees who believed that education can be a deterrent to entrepreneurship. The findings also noted that only one of the entrepreneurs interviewed were actually deterred by formal education and the reason was that interviewee 13 became attracted to the corporate world based on formal education. The formal education interviewee 13 possessed had attracted a “glittering corporate job” as remarked by interviewee 13. The rest of the entrepreneurs noted that if their circumstances were different, they acknowledged that it could have deterred them as mentioned by interviewee 1. Interviewee 7 confirmed that becoming a chartered accountant would have presented an attractiveness to the corporate world and would have provided more opportunity but at the same time, making life too structured and planned.

The findings are largely aligned to the literature. Even though the majority of the interviewees were not actually deterred by formal education to entrepreneurship, they did allude to “giving in” if their circumstances were different. Interviewee 13 was deterred proving that it is very possible. Mahadea *et al* (2011) and Lazenby & Machaba (2011) explain and support the finding of conformity – formal education enables individuals to become more of an employee than an employee. Becoming more

attractive in the corporate world and subsequently attracting high paying jobs is finding supported by Krasniqi (2014) and van der Sluis *et al* (2008). The choice of accepting high paying or well paid jobs over a career of entrepreneurship talks to the risk minimisation finding.

Before concluding it is important to note there were 23% of the interviewees who believed that formal education is not a deterrent to entrepreneurship as shown in Table 19 of Chapter 5. Table 21 of Chapter 5 shows that 67% of the 23% believed that a strong personal desire to become an entrepreneur negated the allure of corporate attractiveness due to having a formal education. Even though the 23% represented 3 interviewees, thereby debating the generality of the finding, it provided food for thought as the researcher did not come across literature otherwise. This suggests a potential addition to the current literature in the sense that formal education may not be a deterrent to entrepreneurship subject to larger volumes of interviewees for future research.

6.2.4.2 Conclusion

The findings, supported by literature, confirm the perceptions that formal education in particular, has an impact on entrepreneurship in terms of career choice in South Africa. Formal education can be a deterrent to entrepreneurship by minimising risk of not earning consistent income and by providing job security. It also leads to conformity and promotes employees rather than employers. These factors conclude the answer to research question 4.

6.2.5. Research Question 5: What are the types of education that could create entrepreneurs and how do they do so?

6.2.5.1 Informal and Non formal education

Table 22 of Chapter 5 highlights the finding that “doing” is an effective way of learning to become an entrepreneur (85% of the interviewees learned by doing). “Doing” suggested practice and execution. Other effective ways as perceived by the interviewees included mentorship and reflection. These 3 constructs formed the opinions of more than 50% of the sample. A few direct quotes from the interviewees

are shared below to illustrate the importance of doing (Table 26 of Chapter 5 provides all of the findings related to why doing is effective):

“Doing is like a working prototype – you will learn very quickly if its going to work or not”
(Interviewee 3)

“By doing and making mistakes, you learn quicker than just formal education
(Interviewee 5)

“By doing, you learn what people want and they give you their money for it and you learn what they don’t want because they either don’t give you their money or they give you their money or they give you their money and don’t give it to you again. You learn this by doing” (Interviewee 9)

Interviewee 9 was very passionate about explaining why doing is an effective way of becoming an entrepreneur. A final analogy is shared by interviewee 9 which was apt and intriguing:

“You want your kid to bump his shin or get hit on the knee by a cricket ball without a pad when he is playing in the garden because he may end up being a great batsman because he is not scared of getting hit by the ball but if you put a helmet on and pads and gloves and he doesn’t understand the ball, the first time he gets hit in the stomach, he doesn’t want to do this anymore, its too sore – same applies to business”

Table 27 of Chapter 5 showed the consistency of the interviewees in terms of the best ways recommended to learn to become an entrepreneur. Their recommendations were very close to the ways they had learned to become an entrepreneur with “doing” at the top of the list and mentorships featuring in the top 3.

The findings shown in Table 22 were then coded multiple times until Table 25 of Chapter 5 was developed which clearly indicated that a combination of both informal and non formal education had helped the South African entrepreneurs become entrepreneurs. This suggests that entrepreneurs could be created through means of informal and non formal education. As presented in Table 13 of Chapter 5 and section 6.2.2.1, formal education does not create entrepreneurs in South Africa. This was the perception of 69% of the sample interviewed. Formal education is therefore ruled out as a creator of entrepreneurs in South Africa.

The findings for this research question are aligned to the literature in the following ways:

Wu & Jung (2008) argued that individuals who start their own businesses required assistance via non traditional programs which are practical in nature. They therefore endorse practice as a learning mechanism. “Doing” suggests practice and execution as per the findings mentioned above. The literature therefore supports and explains the finding of “doing”.

Cordea (2014) promoted extracurricular activities such as mentoring/mentorships for example to allow potential entrepreneurs better chances “to learn by doing through action and experience accumulated” (Cordea, 2014, p. 1147). Higgins *et al* (2013) suggested that educating for entrepreneurship should include “reflective technique” (Higgins *et al*, 2013, p. 10). “Reflective technique” enables the individual to improve his or her understanding of what it entails to “practice as an entrepreneur” (Higgins *et al*, 2013, p. 10). Higgins *et al* (2013) supports the finding of reflection. Reflection as suggested by the interviewees, is one of the better ways of learning to become an entrepreneur. Lastly, Yamakawa & Cardon (2015) highlighted 3 ways of learning namely, “doing” (Yamakawa & Cardon, 2015, p. 799), reflection and an “educational process” (Yamakawa & Cardon, 2015, p. 799). The literature thus supports the findings of learning in the context of learning to become an entrepreneur.

6.2.5.2 Conclusion

The Cordia (2014) and Higgins *et al* (2008) studies alluded that entrepreneurship can be learned through informal education methods therefore implying that entrepreneurs can be created. As there was no causation proven in these studies, the researcher took the view that these informal methods could enable entrepreneurship, not necessarily create entrepreneurs. The findings for this research question overwhelmingly indicated the interviewees learned to become entrepreneurs by “doing” (ranked first by the interviewees), followed by mentorship (ranked second by the interviewees) and reflection (ranked third by the interviewees) as per Table 22 presented in Chapter 5. These constructs are indicative of informal education methods. Based on the perceptions of the interviewees and the top 3 ranked constructs (all above 50% of the interviewees perceiving so), entrepreneur creation is implied. The findings therefore add to the literature. The researcher therefore concludes that informal education can create entrepreneurs through doing (which results in experiential learning), mentorship and reflection thereby answering the research question.

Chapter 7: Conclusion and Recommendations

7.1 Introduction

This chapter summarizes the outcomes of this research study by briefly re-iterating the research problem. The main findings are then summarized followed by the value of this research. Recommendations to stakeholders then follow with limitations, future research recommendations and a conclusion drawing an end to this research study.

7.2 Recap of the Research Problem

The research journey began with the identification of early entrepreneurial rates declining by 34% in South Africa in 2014 (GEM South Africa, 2014). Whereas it was noted that various reasons could contribute to this scenario (Walter & Block, 2016), education, specifically, a lack of education, was identified as one of the major concerns and roadblocks contributing to the low early entrepreneurial rates in South Africa (Illingworth, 2015). Education in South Africa was also viewed as a mechanism for creating employees and not a harnesser of employers (Illingworth, 2015; Lazenby & Machaba, 2011). Given the importance of entrepreneurship to economy development and job creation (Petridou & Sarri, 2011; Luiz & Mariotti, 2011), this research study aimed to ascertain if education is a creator or an enabler of entrepreneurship in South Africa.

7.3 Main Findings

The primary objective of the research study was to ascertain if education can create or enable education in South Africa. The data collected in response to the subsequent research questions were largely supported by the literature. The researcher argued that education is an enabler of entrepreneurship and not necessarily a creator of entrepreneurs. The main findings from a South African context are now briefly discussed.

The main finding for the first research question of this research study confirmed the South African perceptions of entrepreneurship as the act/s of opportunity discovery, creation, opportunity exploitation and business start up. No substantial evidence

emerged that contradicted the literature. South African entrepreneurs also perceived acquisition of education through formal, informal and non formal methods

The next main finding based on the context provided by the first research question confirmed firstly, formal education does not create entrepreneurs in South Africa. It was established that formal education is an enabler of entrepreneurship in South Africa. Formal education enables entrepreneurship in South Africa by providing the individual with confidence and knowledge.

The research study next identified that primary and secondary levels of formal education were linked to entrepreneurship in South Africa. These levels of schooling provided knowledge, a foundation and general skills required for entrepreneurship. It was then established that education, more specifically, formal education, can be an inhibitor to entrepreneurship thereby impacting entrepreneurship as a career choice in South Africa. Formal education attracts jobs in the corporate world and by doing so; decreases risk by providing job and earning security.

Lastly, education, more specifically, informal education was found to be an effective way of learning to become an entrepreneur through means of “doing” via experiential learning as an example, mentorship and observation. Is so doing, learning to be entrepreneur suggested that entrepreneurs can be created in South Africa.

7.4 Value of the research

This research adds to the literature by providing a South African context and aids with the generalization of previous research that supports the positive link between education and entrepreneurship thus allowing the phenomenon of creating and enabling entrepreneurship to somewhat develop a more consistent understanding and view. The primary nature of the data collected via the semi structured interviews adds value to research on entrepreneurship in general as it is unique based on this research project (Myers, 2009).

7.5 Recommendations

7.5.1 Educational Policymakers

The outcome of the research strongly advocates informal education that is, experiential learning via “doing” to create entrepreneurs. Practice is therefore a critical component of doing. Therefore, the recommendations to educational policymakers are:

1. Children should be exposed to entrepreneurship as soon as possible with a likely starting point of primary schooling. Market days should be introduced/re-introduced to facilitate experimental learning and thus, “doing”. This initiative could influence schools educating for “employeehip” to educating for “employership”
2. An extension of experiential learning is failure. Failure should be facilitated and encouraged at primary and secondary schooling levels with no stigma attached to failure. The thinking behind this recommendation is that failure must result in learning. This will aid the progression of their development as humans and future business starters/employers. The below, as explained directly by some of the interviews illustrates the recommendation:

“Failures are things that might need a little bit more skill in but you do not know what they are” (Interviewee 5)

“The problem that stops people from being entrepreneurs is 1) worrying about paying the bills and 2) the fear of failure. If you take those 2 away, you will get many many failures and as entrepreneurs, we learn from the failures, not just ours, but other peoples failures. We learn from failure, every opportunity we can give to kids to learn from failure strengthens them” (Interviewee 9)

3. Children should be exposed to businesses as educational tours with the aim of encouraging observation and subsequently carrying out mini tasks based on their observation
4. The mentality of doing/execution should be instilled through the education system as early as possible by ensuring a practical component to every piece of learning with an education system

5. Introduce the idea of mentorships (Cordea, 2014) at either primary or secondary schooling level. As Cordea (2014) explains, mentorships “allow potential entrepreneurs better chances “to learn by doing through action and experience accumulated” (Cordea, 2014, p. 1147). Interviewee 13 remarked:

“Give kids at all levels access to mentors, business coaches to get kids curious about opportunities that await them”

7.5.2 Future Entrepreneurs

Future entrepreneurs are recommended to adopt or implement the following to create or enhance their entrepreneurship journeys:

1. Obtain mentors or be involved in mentorships for entrepreneurship. These mentors will serve as the guiding lights of the future entrepreneurs’ entrepreneurship journey. Cordea (2014) explains the importance of mentorships in terms of learning and experience
2. High dosage of practical immersion by doing and making mistakes. These expedite learning. Getting involved in apprenticeships/internships was mentioned as an effective way of understanding and learning practically as mentioned by interviewees 1 and 4
3. Observe other entrepreneurs and learn through their success, but more importantly, through their failures. Therefore, becoming a part of entrepreneurial networks will be hugely beneficial to the entrepreneurial journey
4. Surround yourselves with like minded people/other entrepreneurs. This can aid with helping the individual to do/execute as supported by interviewees 4, 6 and 8

7.6 Limitations

- i. Cross sectional nature of study – this research study was conducted at a single period in time. Longitudinal studies can enhance the understanding of the link between education and entrepreneurship (Dickson *et al*, 2008)
- ii. Heterogeneity is a persistent challenge when conducting research in entrepreneurship (Sarasvathy & Venkataraman, 2011). Entrepreneurs are different and the nature of their differences are unpredictable (Sarasvathy & Venkataraman, 2011)
- iii. The context for the study is South Africa with Johannesburg being the region for the population. Results of the study may not be generalizable as the differences in regions and countries could lead to different outcomes in terms of education and its link to entrepreneurship (Dickson *et al* 2008)
- iv. The sampling methods chosen for this research study results in selection bias. This method does not allow for a statistical representation of the population
- v. Due to the nature of qualitative research, the data collected and resultant analysis and findings were exposed to the risk of subjectivity

7.7 Future research

7.7.1 Longitudinal Research

The nature of this study was cross sectional in nature due to the deadline provided by the Gordon Institute of Business Science in partial fulfilment of the MBA qualification. Most entrepreneurship studies have been cross sectional in design and have failed to determine causation (Zahra, Wright, & Abdelgawad, 2014). This study has inferred actual entrepreneur creation based on the perceptions of entrepreneurs. Future studies in South Africa should therefore focus more on longitudinal types of studies regarding the effectiveness of education on actual entrepreneur creation in South Africa with a focus on primary and secondary schooling as starting points as well as what higher education institutes are offering in terms of entrepreneurship. This will assist with improving the understanding of the link between education and entrepreneurship (Dickson *et al* , 2008).

7.7.2 Perspective of Failed Entrepreneurs

This research study did not use the lens of failure when ascertaining if education is an enabler or creator of entrepreneurship. The sample for this research study included founders of successful companies. The perceptions gained were therefore from a sample of successful entrepreneurs who were all running profitable businesses at the time of the data collection. The construct of failure was therefore not explored. Understanding failure in the field of entrepreneurship has been increasing with interest in academia (Olaison & Sorensen, 2014). Olaison & Sorensen (2014) highlight that if the understanding of “why entrepreneurs fail” (Olaison & Sorensen, 2014, p. 196) can be improved, then it is possible to improve the entrepreneurial “success/failure ratio” (Olaison & Sorensen, 2014, p. 196). The recommendation is to therefore understand the impact of education from a failed entrepreneur perspective

7.7.3 No formal education background

The sample for this study included entrepreneurs who all had some form of formal education. As shown in this study, based on the perspectives of the sample, formal education did enable entrepreneurship in South Africa. What would the learnings and result be if the sample included entrepreneurs with no formal education background? The answer to this question should be ascertained through future research in an effort to understand how we can continually improve our educational systems to create entrepreneurs.

7.7.4 Quantitative Study

A quantitative study is recommended to strengthen the finding of this study in terms of informal education being a creator of entrepreneurs.

7.8 Conclusion

The importance of education as a tool to improve early entrepreneurial activity rates in South Africa was highlighted in Chapter 1. The literature in Chapter 2 had shown that education is likely to enable entrepreneurship and not necessarily create entrepreneurs. This was the argument adopted by the researcher. The subsequent findings of this research showed some support for the researchers’ argument. Formal

education was found to enable entrepreneurship in South Africa thereby confirming the first half of the argument. Human Capital Theory provides further confirmation of this finding. The perceptions of the majority of the interviewees were that entrepreneurship can be learned through informal education. This was interpreted as entrepreneurship creation – if one can learn then one can be created. Therefore, the second part of the researchers argument was not shown to be the case as informal education could create entrepreneurs based on the perceptions of South African entrepreneurs.

Education, in either of its forms, is thus a critical driver of entrepreneurship in South Africa and should be improved regularly through the findings of this research and future research to improve the confidence of future entrepreneurs and foster higher entrepreneurship rates in South Africa thereby tackling the issues mentioned in Chapter 1. Educational policymakers must invest more time and effort on informal education methods to aid with the production of more entrepreneurs in South Africa.



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Appendix 1: Consent Form

Gordon Institute of Business Science

University of Pretoria

Dear Research Participant

I am conducting research on entrepreneurship, and am trying to find out more about education and its impact on entrepreneur creation in South Africa. Our interview is expected to last about 45-60 minutes. **Your participation is voluntary and you can withdraw at any time without penalty.** All data gathered during this interview will be electronically recorded and kept confidential. If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher name: Sudeshen Moodley
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Research supervisor name: Jabu Maphalala
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Signature of participant:

Date:

Signature of researcher:

Date:

Appendix 2: Draft Interview Guide

Good Morning/Afternoon/Evening. My name is Sudeshen Moodley. I am an MBA student at the Gordon Institute of Business Science. I am conducting research on entrepreneurship, and am trying to find out more about education and its impact on entrepreneur creation in South Africa. Our interview is expected to last about 45-60 minutes. **Your participation is voluntary and you can withdraw at any time without penalty.** All data gathered during this interview will be electronically recorded and kept confidential.

Your responses to my questions will be an indication that you voluntarily consent to participating in this research.

What is your current age?

Section 1: Ascertain respondents understanding of what entrepreneurship/an entrepreneur is, the industry the respondent is an entrepreneur in and the length of time of entrepreneurship

In your opinion, what is an entrepreneur/entrepreneurship?

Probes: Opportunity discovery?

Opportunity exploitation and business start up?

Which industry/industries are you currently an entrepreneur in/apply entrepreneurship?

Prompt: Why did you become an entrepreneur/apply entrepreneurship in that industry/those industries?

How long have you been an entrepreneur?

Probe: Time in years?

Since a life event ie once secondary schooling was complete, once tertiary

education was complete etc?

Section 2: Ascertain the respondents understanding of education and its role in entrepreneur creation

In your experience, what is education/what does education mean to you?

How did you educate yourself?

Probes: Formal (schools)?

Informal (work experience, on the job training)?

Non formal (libraries, museums)?

In your opinion, how did the education you receive help you become an entrepreneur? (Confidence, lower perceived risk, cognitive skills – ability to process information, reason, remember and relate)

Prompt: In your experience, did it make it easier for you to become an entrepreneur than if you did not have any education?

Prompt: How so?

Prompt: What is your current level of formal education and what was your level of formal education when you became an entrepreneur?

Prompt: In your opinion, what are the reasons that formal education either creates or has no impact on entrepreneur creation?

Prompt: In your opinion and from an educational perspective, what would you recommend to policy makers to help create more entrepreneurs in South Africa?

Prompt: How do you think the education you received could have deterred you from becoming an entrepreneur?

Probe: More attractive in the corporate world, other?

Section 3: Characteristics of entrepreneurs and education

What would you say are the characteristics that helped you/that you needed to become an entrepreneur?

Probe: Creativity, risk taking, proactiveness, flexibility, other?

Prompt: In your opinion, how did the education you receive help you with developing/attaining these characteristics?

Prompt: In your opinion, how did the education you receive/acquire not help you with developing/attaining these characteristics? (If the answer to the first prompt is negative)

Prompt: In your opinion and through your experience, what recommendations do you have to improve how these characteristics are learnt in terms of education?

Section 4: Learning and entrepreneurship

How did you learn to become an entrepreneur?

Probe: Knowledge and skills attainment via an educational process?

Probe: By doing (repetition and reflection)? Exposure to entrepreneurs/shadowing entrepreneurs? Other?

Prompt: In your view, what knowledge and skills did you need to learn to become an entrepreneur?

Prompt: In your opinion, why do you think “doing” may not be an effective way of becoming an entrepreneur/ may be an effective way of becoming an entrepreneur?

Prompt: In your experience, what would you suggest are the best ways to learn to become an entrepreneur?

Section 5: Closing

Do you have any comments or questions?

Thank research participant for his/her time

<<<End of interview>

Appendix 3: Coding for Table 10

Interview	Sub Theme	Theme
2	Helps to know where to find resources	It helped
3	Confirmed ability to learn	
4	A bit of theoretical and sound understanding of how to read a spreadsheet and restaurant design	
5	Very little unless you did accounting typed subjects	
11	Definitely assisted	
	Helped with financial understanding of business	
	Helped with legal matters	
10	Provides a base to be professional	
	Some analytical capability	
	Learn how to solve problems in particular ways	
7	Was a stepping block	
6	Provided credibility	
2	Knowledge	
2	Open own business or practice	
8	Gave confidence to make fewer mistakes	
9	Gave him confidence to deal with people who already had money	
12	Gives one structure	
1	Made your parents happy	I don't think it did
5	Did not provide much skills	
4	Cant see how it helped in any way	
5	School was a waste of time	
5	Education happened after school	
4	Entrepreneur side developed by gut feel, not education	
3	Could have done it without the formal education	
12	Im not sure it did	
13	Doesn't think she was taught to be an entrepreneur and doesn't think the formal education she has received was either a catalyst for her to be an entrepreneur	



Appendix 4: Coding for Table 11

Interview	Sub Themes	Theme
2	Helps to know where to find resources	Knowledge
2	Knowledge	
4	A bit of theoretical and sound understanding of how to read a spreadsheet and restaurant design	
11	Helped with financial understanding of business	
11	Helped with legal matters	
5	Very little unless you did accounting typed subjects	
3	Confirmed ability to learn	
10	Some analytical capability	
10	Learn how to solve problems in particular ways	
7	Was a stepping block	Provides a foundation
10	Provides a base to be professional	
12	Gives one structure	
6	Provided credibility	Credibility
2	Open own business or practice	Open own business
8	Gave confidence to make fewer mistakes	Make fewer mistakes
9	Gave him confidence to deal with people who already had money	Deal with people who already had money

Appendix 5: Coding for Table 14

Interview	Sub Themes	Theme
3	Entrepreneurs are not made in lecture halls or classrooms	Innate
7	You are born an entrepreneur	
13	A lot of the skills and personality traits inherent to entrepreneurs	
2	Lack of access to creative thinking	Lack of creative thinking
12	It didn't besides the fact that it provided structure. Drove you to conventional thinking as opposed to creative thinking. Creative thinking is what drives entrepreneurship	
1	Not feeling it if its just formal education , classroom, textbook and case study based	Lack of practical education
1	Formal education that he remembers doesn't really provide practical education	
6	Doesn't think it necessarily creates entrepreneurs.You get comfortable when you in a job unless you get forced out	Job comfort
6	Did not create entrepreneurial spirit	
2	Formal education doesn't really help is the ones where there is rational and analytical thinking	Rational and Analytical thinking
3	Education does not create entrepreneurs because she thinks that entrepreneurs are kind of borne out of mostly necessity	Borne out of necessity
5	If you abide by the rules that education gives you a playing field or not try to move out of it, he believes that you will not become an entrepreneur	Abiding by the rules
11	It would however extract the qualities of an entrepreneur and be able to identify whether you cut out for being an entrepreneur	Filter



Appendix 6: Coding for Table 16

Interview	Sub Themes	Construct/Theme
1	Flexible	Flexible
3	Multiple hat wearer	
3	Flexible	
4	Flexible	
5	Flexible	
6	Flexible	
6	Adaptive	
8	Flexible	
7	Flexible	
9	Flexible	
10	Adaptive	
11	Flexible	
12	Flexible	
13	Flexible	
2	Creative	Creative
3	Creative problem solver	
4	Creative	
5	Creative	
8	Creative	
7	Creative	
9	Creativity	
10	Creative	
11	Creative	
12	Creation	
13	Creative	
3	High appetite for risk	Risk
5	Risk taking	
6	Higher risk tolerance	
7	Calculated risk taker	
9	Risk taking	
10	High appetite for risk	
12	Risk taking	
13	Risk taking	



1	Proactive	Proactive
4	Proactive	
7	Proactive	
9	Proactive	
10	Proactive	
11	Proactive	
12	Proactive	
13	Proactive	Determination
2	Determination	
3	Resilience	
4	Resilience	
5	Persistent	
7	Tenacious	
9	Commitment	
11	Motivated	People/Relationships
11	Commitment	
11	Persistent	
1	Ability to find good people to surround you	
1	Ability to connect with people	
1	Emotional intelligence	
5	Mindful	
5	Good listener	
6	Networking	Problem solver
6	Emotional intelligence	
8	Relationships	
6	Problem solver	Optimism
10	Problem solver	
11	Problem solver	
1	Optimism	Integrity
11	Ambitious	
2	Integrity	Ability to learn
3	Integrity	
3	Ability to learn	Ability to learn
5	Curious	



3	Doer	Doer
8	Doer	
6	Quick decision maker	Speed/Quickness
10	Fast execution	
7	Disciplined	Disciplined
8	Disciplined	
7	Positive	Positive
9	Confidant	
9	Courageous	
12	Explorative mindset	Explorative mindset
10	Analytical	Analytical
10	Impatience	Impatient
7	Good with numbers	Good with Numbers
4	Passionate	Passion
4	Humility	Humility
3	Higher tolerance for failure	Tolerance for failure
3	Good at stress management	Good stress management
3	Belief in oneself	Self Efficacy
2	Tough	Tough
1	Ability to sell	Ability to sell



Appendix 7: Coding for Table 17

Interview	Sub Themes	Theme
2	Gives you tools to have an imagination or creative thinking	It helped
2	Know how	
3	Resilience, creative problem solving and financial stuff can be taught	
4	A Bit	
5	Other than a few	
6	Interaction with other people at varsity	
6	Good base	
6	Network and source of information	
8	MBA helped with relationship skills	
9	MBA - Framework to hang things on	
9	You learn to think and you learn to find information you need	
10	It helped but you do not build businesses on frameworks, you build businesses on models that are specific to your context	
12	Geometrical drawing - helped with creativity	
12	Mathematics helped with weighing risk etc	
13	Tertiary education helped with high pressure situations	Did not help
13	Helped a fair amount	
1	Zero, very little	
3	Cant teach passion and integrity	
5	Not really	
4	Didn't help much with characteristic development	Depends
7	Formal education did not have a huge impact on characteristic development	
11	Its innate	
11	Depends on the courses you choose	



Appendix 8: Coding for Table 18

Interview	Sub Theme	Theme
2	Know how	Know how
6	Good base	
6	Network	
9	Framework to hang things	
12	Maths - weighing risk etc	
9	Learn to think	
2	Provides tools to have an imagination or creative thinking	Creativity/Creative thinking
3	Creative problem solving	
12	Helped with creativity	
13	Problem solve	
4	A bit	Helped but did not explain how
5	A few	
10	It helped	
1	Didn't help	Did not help/Innate
7	Didn't have a huge impact	
11	Innate	
6	Social skills	Social Skills
8	Relationship skills	
6	Source of information	Source of Information
9	Find information you need	
3	Resilience	Resilience
3	Financial	Financial



Appendix 9: Coding for Table 19

Interview Number	Sub Themes	Theme
1	You get channelled into a particular way as a CA	Can Deter
1	If you got your CA, the risk of starting your own business as opposed to earning a salary as a CA is quite enticing, you don't want to risk it	
1	Too much education can get you into a situation where you very cosy, its hard to change	
2	It gives you that security	
5	Formal education gives you security	
5	Formal education did not deter him from opportunities	
5	It can deter one	
6	If he went into corporate and climbed the ladder quick, probably wouldn't have done what he did	
6	Could have deterred him, deterred many of his friends	
7	Would have made her more more attractive in the corporate world, provided more opportunity and she could not have seen the opportunity	
9	A formal education makes you walk down a certain path, you get institutionalised by formal education	
9	I think it deters people	
12	Formal education is conformative	
13	It did - led her to a glittering corporate job - attractive to the corporate world	
3	No, it did not deter her because the want to be her own boss was stronger than the desire for money in the short terms	Does not deter
10	He doesn't think it deters	
10	Context dependent - eg. family/no family	
11	He doesn't think so	
11	Would have been his own advocate if he completed the law degree	
11	Agree that you could be more attractive in the corp world	Did not matter
4	Didn't matter for him - he was determined and knew what he wanted to do	
8	You tend to be more risk averse	Can work both ways
8	It can work both ways	



Appendix 10: Coding for Table 20

Interview	Sub Themes	Theme
1	You get channelled into a particular way as a CA	Leads to conformity
6	If he went into corporate and climbed the ladder quick, probably wouldn't have done what he did	
9	a formal education makes you walk down a certain path, you get institutionalised by formal education	
12	Formal education is conformative	
1	If you got your CA, the risk of starting your own business as opposed to earning a salary as a CA is quite enticing, you don't want to risk it	Decreases Risk
1	Too much education can get you into a situation where you very	
2	It gives you that security	
5	Formal education gives you security	
7	Would have made her more more attractive in the corporate world, provided more opportunity and she could not have seen the opportunity	More attractive in the corporate world
11	Agree that you could be more attractive in the corporate world	
13	It did - led her to a glittering corporate job - attractive to the corporate world	

Appendix 11: Coding for Table 21

Interview	Sub Themes	Theme
3	No, it did not deter her because the want to be her own boss was stronger than the desire for money in the short terms	Strong personal desire
10	Context dependent - eg. family/no family	
11	Would have been his own advocate if he completed the law degree	No conclusive reason



Appendix 12: Coding for Table 22

Interview	Sub Themes	Theme
1	Doing	Doing (Repetition)
4	Doing it	
5	By doing	
6	Doing	
7	Doing	
8	Hands on	
8	Doing it	
8	Repetition	
9	Repetition	
10	Doing (repetition and reflection is a part of it)	
11	Doing	
12	Doing	
13	Doing	
2	Mentorship (formal or observing other people, following these days via LinkedIn etc)	Mentorship
3	Had a few great teachers	
4	Had a few incredible mentors	
6	Mentors - people that he sees is successful in business- sit with them once a month. Mentors are entrepreneurs	
8	Mentorship	
7	Exposure to the right environment and mentors and people	
12	Mentorship	
13	Mentors	
4	Reflection	Reflection
5	Reflection	
6	Hasn't done the reflection stuff enough	
8	Reflection	
9	Reflection	
10	Doing (repetition and reflection is a part of it)	
13	Reflection	
1	He just enjoys it, part of his make up	Innate
4	Passion for what he does	
4	Comes naturally	
4	Born an entrepreneur	
4	You either have it or you don't	
11	You don't learn to become an entrepreneur	
11	You either cut out as entrepreneur or not	
11	You innately an entrepreneur or not	
13	Did not learn to become an entrepreneur	
2	Learned from life observation and then building up data	Observation
2	Mentorship (formal or observing other people, following these days via LinkedIn etc)	
1	Looked at how his father and grandfather conducted themselves	
3	Watching her bosses in corporate getting it wrong	
12	Observation	



3	Learned from family - comes from a family of entrepreneurs	Family
6	Learned about business from his father in law (informal teacher of business) (always make a plan)	
5	Mix and interact with other entrepreneurs	Other Entrepreneurs
11	Exposure to other entrepreneurs	
13	Other entrepreneurs	
7	Learnt through formal education	Formal education
8	Academic understanding	
5	Trial and error	Trial and Error
5	By making mistakes- first made the mistake, then went back to understand why he made the mistake	
1	Desperation	Desperation
8	Personal Development - reading and development courses	Personal Development

Appendix 13: Coding for Table 26

Interview	Sub Themes	Theme
3	Doing is like a working prototype - you will learn very quickly if its going to work or not	Learn quicker
5	By doing and making mistakes, you learn quicker than just formal education	
11	More hands on - imprints on your mind quicker	
8	Entrepreneurship is about making mistakes and not being afraid to do it, but it's also about understanding that there is a shorter way to success	
13	It's the only way you learn if the behaviour you exhibiting is correct or not.	
3	The way you prove a concept is by doing, not talking	Way to prove a concept
1	I've always got to prove to people that I can do it	
4	You have to do to achieve anything in life	
13	Doing is a large part of the validation of the process	
13	By doing, you either validate or negate the action of the opportunity or outcome	Action orientated
10	Execution	
12	Its not being idle	Unclear
6 and 7		
4	Doing is what drives you	Reason for what drives you
9	If you not doing stuff, you are not learning what people want	Way to learn what people want
2	Yes - that's where the risk part comes in	Linked to risk



Appendix 14: Coding for Table 27

Interview	Sub Themes	Theme
5	Do it, go back, be flexible , re-align and go again	Do it
7	Just do it	
8	Repetition	
9	Do it	
10	Do it, just go and do it	
12	Observation, watch, learn and do	
4	Surround yourself with like minded people/doers	Surround ones self with like minded people
6	Surround your self with other people/have a connection to learn from other people	
6	Connect with people that can guide you	
8	Networking	
8	Mentorship	Mentoring
12	Mentorship	
13	Access to mentors	
6	Put his son in his own business for at least 6 months, sit with the accounts people for 3 week, product people etc and report what he understpod - then he will ask him questions - why did they do what they did etc This is the problem, how would his son solve it	Practical experience
12	Internship	Observation
2	Observation	
12	Observation, watch, learn and do	
1	Put someone in a situation where they have to survive - they will learn quickly	Survival environment
1	Wont learn if there is too much comfort and coziness	
1	The more desperate they are, the more they will learn	
3	Market days at school	School activities
3	Have career days	
2	Read	Read
3	Get kids to save - teach them how to run a savings book, important because that's where they are learning how to balance a bank statement and then when they start spending money, run the cash flow to see whats coming in versus going out	Encourage kids to save
5	All other failures are things that you might need a little bit more skill in but you do not know what they are	Fail