



Entrepreneur Education Assessment in Secondary Schools.

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Abstract

The purpose of this research report is to investigate how Entrepreneurship is being taught in the classroom of secondary schools and to see if there is a vast difference between how it is taught across the income spectrum of the students.

The research used a qualitative methodological approach. Questionnaires were sent out to respondents selected by the researcher (convenient sample). Then there was a follow-up in-depth interview with all the respondents. The respondents are all teachers who currently teach entrepreneurship at secondary schools and were divided into three groups depending on the school they teach at. There is the private school, the Model C School and the public school.

The research revealed that there are vast differences in the way entrepreneurship is taught between the schools. Private schools have a large component of 'beyond the classroom'. These include company visits, guest lecturers on entrepreneurial exercises. Model C Schools were very limited with the 'odd' guest lecturer and 'fund raising' project. Public schools have no practical component to entrepreneurship what so ever. All the previous research suggests that a practical component to teaching entrepreneurship is vital. This research high-light's that entrepreneurial education is seriously lacking at secondary school level in that a practical component seems to be missing.

This research report looked at different schools to see if there was possibly a model that could be replicated across secondary schools that could bring in a practical element to teaching entrepreneurship. A model was found called, 'R10 in ten days'. Students are placed in pairs and given R10 on a Wednesday. The following Friday they return the R10 and profit. They pay 20% to the school and keep the rest. This is a model that can be implemented in every school. Furthermore it creates a culture of 'entrepreneurship'. Parents, relatives and friends get involved. A culture that encourages entrepreneurs is far more successful than one that doesn't.

Key Words: Secondary Schools; Entrepreneurship; Practical Entrepreneurship; Education

Declaration

I declare that this research project is my own work. It is submitted in partial fulfillment 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.

Signed.....

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Chapter 1:

1.1 Introduction

South Africa is a young democracy that has been referred to as the 'rainbow nation'. It is also a country of extremes having one of the highest gini coefficients in the world. Since democracy in 1994, this gini coefficient has increased. The national GDP per capita has increase, yet the percentage of South African's living below the poverty line has remained constant. The unemployment levels are unacceptably high and this places pressure on the economy. In South Africa there are more people receiving State assistance than there are tax-payers. Government has made job creation its top priority, but an increased civil service is not the answer. Neither does the answer lie in big business creating more jobs. The solution is in the small and micro enterprises that encourage entrepreneurship. (Pretorius, Niemand and van Vuuren, 2007). How is it that some countries are managing to create entrepreneurs while other countries are not succeeding? There is a need for entrepreneurs, but very little research has been done to actually look 'what is being taught'. Are there models being used in some classrooms that would benefit the community at large? Are there different 'pockets' of the economy that are managing to create these entrepreneurs while the majority is not succeeding? This is not a situation that is unique to South Arica. Lee, Chang & Lim (2005) found that the United States was falling behind other countries such as South Korea in the area of entrepreneurship. Cheung (2008) found that Hong Kong was lagging behind other eastern countries in the area of entrepreneurship.

What is entrepreneurship? According Rae (2005) there are two very important elements that must interact in order for entrepreneurship to be facilitated. Learning is the first and it is an integral part of the process. These are seen in social and behavioural activities which have an impact on economic aspects. The second is the conceptual model applied in learning process where it is applied in the entrepreneurial education and development. "It can therefore be explained as an inter-related process of creating, recognising, and

acting on opportunities, combining innovating, decision making and action,” (Rae, 2005, p 324).

This paper seeks to look at the education system at high school levels in an attempt to try and understand what certain economic sectors are doing differently to other sectors. The writer seeks to see if there is a difference in entrepreneurial education across the income spectrum specifically in the classroom. The writer hopes to find replicable successful systems that can be transferred across the income spectrum in an attempt to create a culture of entrepreneurs. If such successful programs can be found, then the writer wishes to make known the findings.

Entrepreneurship and knowledge are considered to be the last factors of production. The other three being: Land, capital and labour. Anyansi-Archibong (2010) suggested that entrepreneurship and knowledge are the most neglected factors of production as they are not as tangible as the other three. China’s advancement has been to a large extent encouraged by entrepreneurship programmes. They concluded that emerging or developing countries were more likely to invest in entrepreneurship programmes with countries like China investing far more than other emerging economies like Nigeria. They argued that for any developing economy to advance there is a real need to foster a culture of entrepreneurship.

To a large extent this is not new as Peter Drucker in 1999 coined the phrase, “Knowledge worker.” The term was used to describe young high-tech employees in the emerging high-tech industries of Silicon Valley. (Anyansi-Archibong, 2010). By 2001 the term was well entrenched in high-tech environments. Coupled to this was a strong emphasis on entrepreneurship. Young, bright people were encouraged to come up with innovative ways to sustain a competitive advantage. New ideas were well rewarded and encouraged. There were incentives for coming up with new ideas. China is a good example of incentivizing new ideas and encouraging creative working and thinking. Nigeria to a large extent did not offer the same incentives as China for creative work. Government policy

affects entrepreneurial activity within a country according to Chi Anyansi-Archibong, (2010).

How do people learn to work in entrepreneurial ways: Are there significant processes and experiences in their learning, which can be related to existing learning theories? Can a useful framework for the understanding of entrepreneurial learning be developed and applied, both in entrepreneurial practise and conceptually by educators? A country that suffers from high unemployment fails to capitalise on a key factor of production, namely labour. For a developing country to maximise its economic development, it needs to effectively use all its factors of production in an effective way. High levels of unemployment have all kinds of social consequences associated with it. An entrepreneurial culture stimulates the economy by creating jobs and can alleviate many of the social consequences associated with high levels of unemployment.

In Nickels (2004), an analysis between rich countries and poor countries highlighted that knowledge and entrepreneurship are the most dominant causes for the wealth of a nation. Many poor countries have an abundance of land, labour and natural resources, but are still poor. Some countries like Japan have limited land and natural resources, but have emerged as economic power-houses of the world. Institutions like the World Bank and International Monetary Fund (IMF) have made it possible for poor countries to access capital. Through various funding agencies it is possible to gain access to funding. The issue is the ability to utilise such funds in a productive manner that require knowledge and entrepreneurship. Missing ingredients (machinery and tools) could be acquired through partnerships. International organisations are committed to sustainability. Countries need to demonstrate an ability to act responsibly with the funds and put them to good use for development.

Every country has success stories about entrepreneurs. Unfortunately some countries have fewer entrepreneurs than other richer countries. There is definitely a link between

richer countries and the number of entrepreneurs that the country has. This is supported by Riverin, 2006, and Levine, 2006 where they express concern for the lack of entrepreneurs in both Croatia and the USA for this very reason. What are the requirements to develop entrepreneurial skills for a country? If the school curriculum was altered, could a country develop more entrepreneurs? There is definitely a link between entrepreneur education and entrepreneurs. (Cheung, 2008; Matlay and Carey, 2007 and Lobler, 2006). However Henry, Hill and Leicht, (2007) found that traditional teaching methods when applied to entrepreneurship to be “inappropriate”. They fully support that entrepreneurial education does create more entrepreneurs, but they qualified it by insisting that there a right and wrong way about teaching entrepreneurship. A practical element is seen as vital.

1.2 Conclusion

The researcher intends to investigate how entrepreneurship is being taught at secondary schools. What is actually been taught in the schools and how does this measure up to previous research on the topic? Are teachers networking to gain best practise and are there any models that can be used to generate more entrepreneurs? The writer looks to add this paper to recommendations to halve unemployment by 2016 in South Africa and help turn South Africa into an entrepreneurial nation.

2 Chapter 2: Literature Review

2.1 Introduction

Certain economies have been better at creating entrepreneurs than others. Africa has so much potential, yet there seems to be something lacking. (Pretorius, Niemand and van Vuuren, 2007). Where do these entrepreneurs come from and how is it possible for certain countries and certain cultures to create more entrepreneurs than other countries and other cultures? Is there a secret formula that is known to some and not to others?

If South Africa is going to become the gate-way to Africa, we need to start developing more entrepreneurs. A greater number of entrepreneurs lead to greater economic prosperity for a nation. (Anyansi-Archibong, 2010; Entrepreneurship Conference, 2010; Levine, 2006; Riverin, 2006;). The role of the youth in entrepreneurship to promote business and create an economy with sustainable growth and economic prosperity is essential. Although this is known, there seems to be higher unemployment in the age groups eighteen to twenty-four. (Steenkamp, van der Merwe & Athayde, 2011, p314). South Africa has a relatively young population when compared to Western Europe and the Scandinavian Countries. High unemployment in the youth brings with it a number of social problems. (Steenkamp et al, 2011, p316). Turning people into entrepreneurs is not that easy as found by Cheung, 2008. In Hong Kong only 3 out of every one hundred people surveyed by the Global Entrepreneurship Monitor (GEM) had started their own business in the last forty-two months. (Cheung, 2008, p500). Riven found that it is difficult to identify the key players in an entrepreneurial culture when he looked at reasons for the low entrepreneurial rate of that of Croatia when compared to Western Europe and the United States. (Riven, 2008, p98). Levine is also critical of the United States saying that not enough is being done to foster an entrepreneurial culture. (Levine, 2006, p1). The United States with the largest economy in the world and known to be entrepreneurial is being

criticised by Levine and Lobler (2006, p21) for not creating more entrepreneurs. What started out to be a South African problem can be extended into the world economy.

2.2 Are Entrepreneurs born or made?

There are two camps as to whether entrepreneurs are born or made. The main thrust of an argument for entrepreneurs being born as opposed to being made typically cite the large number of successful entrepreneurs that lack formal education (Friedman, 2010). This is a pragmatic approach to the problem. In an attempt to show both sides of the argument Gray and Field (2006) cited Bill Gates, Michael Dell and Steve Jobs who all attributed their success to being outside the classroom. Both Steve Jobs and Bill Gates don't have university degrees with Michael Dell starting out studying medicine. Gray and Field (2006) argue that there are certain qualities that cannot be learnt in a classroom such as "passion". Lee, Lim, Pathak, Chang, & Li, (2006) found the exact same thing. While this may be the case, the sample is small and Gray and Field went deeper into their research concluding that there is definitely a case that entrepreneurship can be taught. Many businesses fail because of silly mistakes that could have been avoided if the entrepreneur had the right knowledge of how to handle certain situations. This can be taught according to Gray and Field (2006, p4). A pragmatic approach often has sampling error in that they focus on statistical outliers. The sample was extended Gray and Field (2006) found that p. They cited Mark Cuban who sold his start up business Broadcast.com to Yahoo.com for \$6bn in 1999. Cuban attributes his success to a course he took at university called 'entrepreneurship'. Flora found that more than half the small business owners in the United States were exposed to small business through a family member and hence gained invaluable experience that was transferred to their business. (Flora, 2006, p 3). This view is supported by McHugh & O'Gorman, 2006, p4 who quote Timmons (1994), Moran & Cooney (2003), Kuratko (2003), and Gibb (1993, 1999, 2000). This supports the notion that entrepreneurs can be 'made' through education. The researcher supports this view.

Flora (2006) in her studies suggests an ‘entrepreneurial community’ leads to greater number of entrepreneurs. Flora (2006) concedes that there are a number of personality traits that is clear that certain individuals are going to be entrepreneurs for when they are very young. These individuals are in the minority and Flora (2006, p5) claims that a large degree of their success can be contributed to the community in which they operate. In order to function in the community, a person needs to ‘learn’ how to be entrepreneurial. Flora (2006) argues that entrepreneurship is a learnt skill, but it doesn’t necessarily come from formal training. The network that the entrepreneur has or can develop can add to the success or failure of that business. This is consistent with Flora (2006) who referred to the network as a community.

There is a strong bias towards entrepreneurs are “nurtured as opposed to natured”. Schwartz and Stolow (2006) are critical of the modern education system in that they argue it does not create entrepreneurs. They do advocate that entrepreneurs are can be created, but argue that the modern education system is not correctly fulfilling the role of nurturing entrepreneurs. (Schwartz and Stolow, 2006, p 84- 85). The researcher seeks to understand this in more detail. To say the wrong things are being taught, doesn’t answer the question when the research fails to identify, ‘what is being taught?’ and ‘what needs to be taught?’ This is what the research seeks to investigate so as to answer these questions.

“There are elements of entrepreneurship being both an art and a science and hence there are definitely some aspects that can be taught.” (Henry, Hill and Leicht, 2007, p 98).

2.3 The need for Entrepreneurial Education

Globalisation has led to job uncertainty throughout the world. The market is changing at a rate never experienced in the past. Lead times and time to market are reducing all the time. Retrenchments and job losses are a consequence of changes in technology and

fundamental changes in the market. (Cheung, 2008, p 502). A change in the economy will lead to a growth in small enterprises. This was observed by both Hayward and Sundes (2000) in Europe as cited by Cheung (2008) and Kourilsky (1995) in the United States also cited by Cheung (2008). General knowledge and skills can be acquired by the individual in a number of ways. This may be formal or informal. (Matlay and Carey, 2007, p 254). The knowledge based worker seeks to acquire skills all the time and entrepreneurial programmes offer different skills and training in order to assist with the desires of the knowledge based worker. Pretorius, Niemand and van Vuuren (2007) suggest that there are many programmes all aimed at different target markets, but their core concepts are all essentially the same in that they aim to promote entrepreneurship in some way. The influence of society and society's views on entrepreneurship can be beneficial or detrimental and for this reason entrepreneurial programmes should be compulsory in the school curriculum. (Pretorius, Niemand and van Vuuren, 2007, p 414). By being more innovative to problem solving and having entrepreneurial skills equips a person far better to cope with an uncertain future. There has never been a time in history when entrepreneurial skills are as vital as they are today. (Henry, Hill and Leicht, 2007, p 101). The researcher agrees with the concept that entrepreneurship should be a compulsory subject at school. In many curriculums there is a component of entrepreneurship, but all the authors fail to identify specifically what should be taught and how educators should go about teaching entrepreneurship. This is what this research report intends to uncover. This is why this research is vital for the body of academic knowledge.

2.4 Approaches to Entrepreneurial Education

There are numerous approaches to teaching entrepreneurship. They vary from lectures, presentations, hand outs, videos, case studies and role plays to mention just a few. There are the traditional teaching methods and the non-traditional teaching methods (Steenekamp, van der Merwe, Athayde, 2011). While the traditional teaching methods focus on theory, the non-traditional focusses on the practical elements of

entrepreneurship. Henry, Hill and Leitch cite Davies and Gibb (1991) and Young (1997) who state that traditional teaching methods for entrepreneurship are “inappropriate”. (Henry, Hill and Leitch, 2007, p 105). Cheung found that most of those surveyed in Hong Kong had some form of experiential learning. This could be in the form of workshop (46%), Competition (67%), Case Study (67%), Mentoring (71%), Didactic Approach (75%), Project Learning (88%). (Cheung, 2008, p 506). This clearly falls outside the classroom. Matlay and Carey found that there are numerous approaches to entrepreneurship with younger institutions being far more proactive than older institutions. (Matlay and Carey, 2007, p 257). Lobler (2006) suggests the greatest challenge is teaching entrepreneurs that they are part of a community and getting them to function in that community. (Lobler, 2006, p 23). He recommends that there are two main approaches to teaching entrepreneurship namely: The Transmission Approach and the Constructive Approach. The transmission approach is where the teacher transfers knowledge to the students whiles the constructive approach which is the unconventional approach. (Lobler, 2006, p 28). While there is an emphasis on non-conventional learning it is not enough just to do without theory. The researcher agrees that a good theoretical base is necessary. Reflection is a vital part of learning entrepreneurship. (Aldrich and Zimmer, 2009; Pittaway and Cope, 2007). Allowing self-selecting groups or entrepreneurial learning teams is vital in stimulating students to learn about entrepreneurship. Entrepreneurship education is evolving and “disruptive technologies” are likely to change the way it will be taught in the future. (Smith and Petersen, 2007, p29). The 3 big advantages of classroom education is that it stimulates creative thinking, provides knowledge on how to bring an idea faster to market to exploit an opportunity and thirdly it creates awareness of self-employment as a legitimate career alternative. (Walter, 2010, p8). If entrepreneurs learning is mainly activity based, then how important is the theoretical base offer in the classroom? While an active approach is recommended, it cannot be done at the expense of theory. It is very clear that a two way approach is needed in order to teach entrepreneurship. There is the theory and there is a practical component. There seems to be ‘avoidance’ in dealing with the practical element and that is what the research is looking to explore.

2.5 Objectives and content of entrepreneurial programmes

There are two main objectives of any entrepreneurial programme. The first is to stimulate thought and enable students to look at doing things differently and the other is to show students that small businesses can be an alternative form of employment (Theil, 2007). Small business ownership is a serious career option for any person (Wilson, Kickul & Marlino, 2007). The benefits of working for one's self are huge and inspire self-efficacy. (Henry, Hill and Leight, 2007, p103). Every entrepreneurial programme has its roots in change and viewing the world differently. This the researcher sees as a necessary education imperative. It requires vision of what the entrepreneur imagines the future to be. A key learning aim understands the strengths and weaknesses of various businesses. The ability to correctly identify an opportunity in the business arena is every entrepreneurs dream. Many programmes include areas such as marketing, planning, management and financial management. (Henry, Hill and Leitch, 2007, p104) This again brings in the 'science' of entrepreneurship. The 'art' would be around inner control, risk taking and innovativeness. These are vital skills for personal development. Experiential learning is a key part of entrepreneurship. Some programmes are more tasks orientated than behaviour focussed. This leads to emphasis on planning and managing a small business rather than problem solving, creativity and innovation. Henry et al cites McCabe (1998) that entrepreneurs that are more task-orientated are more likely to fail. This explains why there is so much emphasis on theory. The researcher will investigate if there is not too much emphasis on theory. The acquisition of entrepreneurial skills is learning by doing. It is noted that students often learn best when sharing their experiences and knowledge with each other. (Pittaway and Cope, p 216). Incubator programmes recognise this. An incubator programme groups many start-ups together so that there is free flow of ideas between the entrepreneurs. This is consistent in that it recognises reflection as a major part of learning. The objectives must be to see the world differently by combining

both a theoretical analysis and a practical component with a chance for reflection in order for maximum learning to take place.

Croatia has started to embrace the entrepreneurial flair with political policies that favour the entrepreneur. Croatia has a young and highly educated population which makes it easier for young entrepreneurs to access the necessary resources. The communities within Croatia have adopted a communal approach to entrepreneurship which enhances the acceptance of failure which is a problem with most programmes. A highly educated workforce is a necessity for innovation to take place. (Riverin, 2006, p 102).

A values system evolves over centuries and is determined by social policies, religion, political policies and economic ideologies. Failure to pay, corruption, financial scandals and moonlighting all have a negative impact on entrepreneurship. (Riverin, 2006, p 102). There seems to be a similarity between Croatia and South Africa in that the negative effects of corruption weigh heavily on society. This creates a despondent nation and views success as being dishonest. Croatia has a lack of integration with academic institutions and business communities. (Riverin, 2006, p 103). This is similar to South Africa where there is a void between academic education and the business community which is contributing to high unemployment.

2.6 School Business Partnerships

In an attempt to bridge the gap between school education and business skills requirements Scales, Foster, Mannes, Horst, Pinto and Rutherford (2005) conducted a study to look at ways in which schools and businesses could collaborate to develop skills in the students that would be used by business. The research was focussed on the motivation of students from low income families in the United States. The programme was called, "Project GRAD" where GRAD stands for, "Graduation Really Achieves Dreams." (Scales et al, 2006, p 150). This is relevant to this research report in that it recognises the importance of the 'knowledge worker'. Entrepreneurs need to have knowledge. The

research found that a relationship with business helped to improve academic achievement across the board. These findings are consistent with Cheung (2008, p 501) where students who could not see the practical side of school tended to be unmotivated and often dropped out. The social consequences of an uneducated population often lead to unemployment and high crime rates. There is a need to demonstrate the practical side of academic study and entrepreneurial programmes are an ideal way in which to demonstrate the link between theory and practice. While Scales suggest these relationships are plentiful in the United States, the writer is not familiar with similar programmes in South Africa. It is quite possible that they do exist extensively, however the writer is not aware of any such programmes. At first glance there may not seem to be a link between entrepreneurship and school business partnerships, but there is a link. The innovation and creativity that is associated with this project leads to higher education and a highly educated population is a requirement to develop an entrepreneurial culture. (Riverin, 2006, p 102). The writer believes that this would be a great way to get business involved in education. If a business offered to enter into a partnership with a school whereby the business offered vocational employment to prospective students and then committed to take 5 students from a particular school each year for 3 years and train them in a particular field. This would create competition that is essential for entrepreneurship to thrive by creating a culture of meritocracy. (Smith, Petersen and Fund, 2006, p31).

2.7 Do Entrepreneurship Programmes increase the number of entrepreneurs?

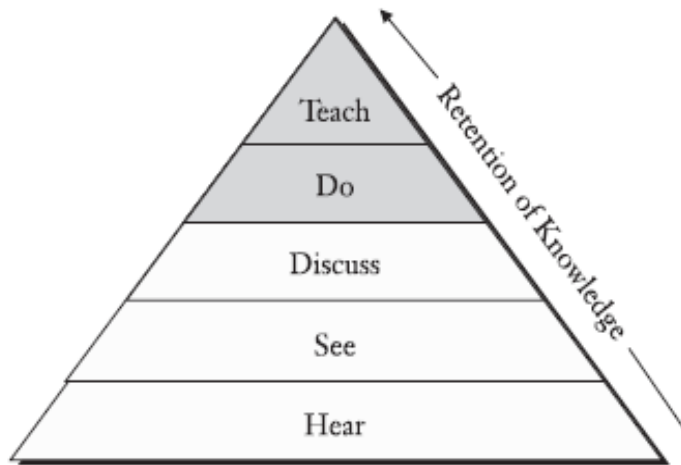
There is large-scale evidence that entrepreneurial programmes create increased intentions of students wanting to become entrepreneurs. This awareness of what is possible creates a change in attitude to entrepreneurship. (Walters, 2010, p3). Active models directly affect intention while those of reflective models require a desirable regional context. The best results would be a combination of both. Education and experience help to identify entrepreneurial opportunities. The network of the

entrepreneur is vital. This is shared with Riverin (2006) who also recognised the network as a key ingredient for creating entrepreneurs. There is evidence that entrepreneur programmes increase innovation. Smith and Petersen found that innovation was not enough to create entrepreneurs. Entrepreneurs need to be different and need to be institutional builders. They make the distinction between entrepreneurs and intrapreneurs. An intrapreneur is a person who ‘develops’ new innovation for someone else using their money and not all risks and rewards fall to the intrapreneur. (Peterman & Kennedy, 2003). The big difference between an intrapreneur and an entrepreneur is ‘risk’. There is a clear distinction between the two with entrepreneurs accepting higher risk tolerances and lower frustration levels while that of an intrapreneur aims to be innovative from within an organisation. Intrapreneurs have lower risk tolerances and can handle higher frustration levels. (Smith and Petersen, 2006, p 4). The driving force for all entrepreneurship seems to be innovation, creativity and trying different things. Failure is a vital part of learning and South Africa has a culture where failure is not accepted and hence many people don’t try for fear of failure. (Pretorius, Niemand and van Vuuren, 2007). Entrepreneur programmes have the ability to remove the stigma of failure and allow for people to become more creative.

Schwartz and Stolow (2006) are very critical of the current education system suggesting that what was acceptable in the past is no longer acceptable for the future and a paradigm shift needs to take place in education. The skills that schools are teaching are based in history as they were adequate in the past and are not applicable in modern society. Bureaucracy being the major obstacle for change. (Schwartz and Stolow, 2006, p97) and supported by Smith, Petersen and Fund, 2006, p6 who also cite bureaucracy and the biggest obstacle to change in the modern education system. While Smith et al are supportive of entrepreneurial programmes they insist that it must also extend to the environment and have connections with the ‘real world’ for them to be meaningful. This view is shared by Scales et al, 2005, p145. Education can be seen as a differentiating factor in determining entrepreneurs from non-entrepreneurs. Education is vital for creating

entrepreneurs. (Lee, Chang and Lim, 2005, p 356). This supports the theory that entrepreneur programmes do create entrepreneurs although Riverin (2006) points out that lead time are large and it is difficult to measure. It must be seen that entrepreneurial programmes are about developing the individual and not about developing the firm as a whole (Shane, 2012).

2.8 The Learning triangle



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Schwartz and Stolow suggest that a programmes will only be effective if it can be reproduced by the participants and provides the “retention of knowledge model” above. (Schwartz and Stolow, 2006, p 97). This model takes into consideration reflection and context which are two vital components for entrepreneurship programmes to work.

2.9 Riverin’s Model (2006) for developing entrepreneurs and an entrepreneurial culture

- Encourage champions, successful initiatives and project proponents. Success breeds success. This will be to create a culture of possibility where people are not afraid to try something different.
- Encourage entrepreneurial competitions. This has the effect of recognising a wide variety of entrepreneurial activities and enables participants to build on previous successes.

- Use the media more effectively. Encourage communication about the goings on and how to participate.
- Organise events where stakeholders can gather and discuss things of interest. This speeds up the learning process.

The researcher believes that Riverin's model is too theoretical to work in practise. The author agrees with all the components at a theoretical level. How does a model get implemented? Riverin fails to give a practical workable model to test his theory. The write seeks to try and find a model that will be practical.

Develop entrepreneurial and managerial skills

- Knowledge acquisition
 - Good stewardship practices (how to set up a board of directors)
 - Business ethics
 - Marketing products and services
 - Foreign markets
 - Foreign languages
 - How to sell, negotiate and to get to know your customers
 - Case opportunity
 - Accounting and finances
- Development of attitudes and skills: Entrepreneurs are motivated by starting projects, preferably their own.
- Experimentation:
 - Mentoring is an excellent short term solution that speeds up the development of entrepreneurial skills.
 - Setting up support groups of similar businesses.
- Organise economic missions so that the entrepreneurs can familiarise themselves with different economic conditions.

(Riverin, 2006, p 106-108)

The researcher fully supports the necessary ‘classroom’ learning that needs to take place in order to develop entrepreneurs. This model builds on Drucker’s knowledge worker as well as the recognition that entrepreneurs need to be institution builders. The author believes that Riverin is missing vital steps in the equation in that he fails to provide a practical exercise where students can ‘learn’ to be entrepreneurs. It is not good enough too simply state there must be experimentation when there is not one option given to experiment with. The researcher aims to address this problem.

2.10 Education and the development of an entrepreneurial culture

Education is a vital for developing an entrepreneurial culture. There are numerous roles that need to be filled by institutions, teachers, the State, parents and schools if South Africa wishes to develop an entrepreneurial culture. (Burger, O’Neill and Mahadea, 2005, p90). The South African Government in their government policy on education in the 2005 the Revises National Curriculum Statement (RNCS) stated that entrepreneurial knowledge and skills be one of 4 outcomes in grade 9 EMS (Economic Management Sciences). (Burger et al, 2005, p90 citing Department of Education, 2001, p27). To what extent are teachers able to teach entrepreneurship when so much of it has a practical component? Teachers in South Africa often lack the necessary experience and expertise to teach subjects that require a vast amount of personal experience (Horn, 2006). There is an incorrect assumption by Government that if you teach entrepreneurship, you will develop entrepreneurs. This only holds true if ‘the right’ entrepreneurship teaching takes place. Traditional teaching methods don’t hold true for teaching entrepreneurship. A practical model needs to be developed for teaching entrepreneurship. Pure classroom theory does not increase the number of entrepreneurs. There is a need for students to collaborate and reflect on their experiences that enable the other students to learn. This would be consistent with Schwarz and Stolow (2006, p97). The inclusion of an entrepreneurial section is to align the South African education system with that of the USA and Japan.

(Burger, et al, 2005, p91). The author believes that without a practical component, the value of having entrepreneurship in education is worthless.

2.11 Past studies on entrepreneurship in South Africa

In 2009 Cullen and Sathorar looked at entrepreneurship in secondary schools in and around the Nelson Mandela Bay Municipality. They concluded that although entrepreneurship was included in the curriculum, there was a considerable lack of practical experience which rendered the programme practically useless. They found that entrepreneurship was part of existing subjects such as Business Studies and recommended that to make entrepreneurship more meaningful it should be a stand-alone subject taught separately. (Cullen and Sathorar, 2009, p2). In its current form there was no desire from secondary students to become entrepreneurs.

The writer looks to expand on this research and instead of choosing schools that can be separated along race lines, as Cullen and Sathorar did, but along income lines. The writer believes that there are 'pockets of excellence' that can be identified and replicated. It is these discoveries of what works that will make the difference in South Africa.

2.12 Conclusion

There is a great deal that has been done on the subject of entrepreneurship. The evidence that entrepreneurship can be taught and is a learnt skill is overwhelming. The research suggests that there are a number of components that make entrepreneurs and that all components need to be fulfilled in order to develop entrepreneurs. These are: a theoretical base that is learnt in a classroom, a practical component and a culture of entrepreneurship. The theoretical base is present, but the practical component is lacking. Culture takes time to develop and can be developed on the back of the previous two. It is therefore necessary to research what is actually being done in classroom and to find out if

there is a practical model that can be replicated across schools to fulfil the need of a practical component and hence develop a culture of entrepreneurs. The best way to look at this is to segment schools on income lines so as to look at a sample that represent the population.

3 Chapter 3: Research Questions

From the literature review it can be seen that although entrepreneurship is being taught in school very little research has been done to examine what exactly is being taught. The literature suggests that theory is being taught, but theory by itself is not enough to create entrepreneurs.

This research project recognises that entrepreneurship is being taught in theory and seeks to understand how exactly entrepreneurship is being taught in practice. The researcher is looking at differences in teaching the subject across the income spectrum.

1. Are there 'institutional constraints' that prevent the teacher from using all forms of teaching available when teaching entrepreneurship?
2. Are there differences in how entrepreneurship is taught across the income spectrum?
3. Are there practical exercises that are being done in one school that can be replicated across the entire school system that will enhance the practical side of entrepreneurship?
4. Are there informal structures that allow teachers to share information about teaching entrepreneurship?

The researcher from the literature review recognises that although there has been a great deal done on the subject, the actual evidence suggesting what is actually done from a practical point of view is lacking. This research is thus an extension of what has been done and has a large exploratory component as to what is actually done in the classroom from a practical point. It is more focussed on what teachers are actually doing in class in order to teach entrepreneurship.

There is an assumption that a private school education is superior to a Model C or that of a Public school. The researcher shall investigate this from the aspect of entrepreneurship, but this paper is not looking at education as a whole and recognises that entrepreneurship is a small aspect of education. So while differences might be found in entrepreneurship, it would be incorrect to extrapolate them out as a representation of education as a whole.

4 Chapter 4: Methodology Approach

4.1 Introduction

This chapter aims to explain why the researcher has taken the approach of a qualitative approach as opposed to a quantitative approach to the research that has been undertaken. The researcher feels that a more meaningful conclusion can be realised and that the research questions in chapter three can be answered using a qualitative approach as will be justified later in the chapter when a detailed comparison is drawn. At all times the researcher is mindful of the four research questions that need to be answered in chapter three.

As the researcher sees this research paper as an extension of Cullen and Sathorar (2005), there will be a number of similarities in the methodology that was adopted in their paper. Similar to Cullen and Sathorar (2005,) a qualitative approach will be adopted. They did a qualitative study as a qualitative study yielded the best possible results for what was being investigated.

Similarly Pretorius, Niemand and van Vuuren (2005) also used a qualitative approach in research methodology when looking at two entrepreneurial models within the education system. However, this paper is a further investigation and hence a qualitative study would be better. Henry, Hill and Leitch (2005) in their concept paper favoured a qualitative approach in determining whether or not entrepreneurs are born or made. They recognised the difficulty in determining what a ‘successful entrepreneur’ is and concluded that a qualitative research methodology would be the best way to approach the topic.

The writer intends to do a qualitative study into different teaching styles of different income groups when dealing with entrepreneurship at secondary school. A questionnaire

will be distributed to the teachers of two Private Schools, two Model “C” Schools and two Township schools in Gauteng. On the return of the questionnaires, a detailed telephone interview will take place. The sample will be chosen from Gauteng. Gauteng has the highest contribution to the country’s GDP. As this research is seen by the author to be an extension of Cullen and Sathora who looked at just one school in their research. The author could have chosen just one school from each sector which would clearly show the differences in approach. As this is seen as exploratory seen by the author, a wider range was perspective approach was adopted. By choosing two schools in each sector, a more reflective insight into entrepreneurship at schools was investigated.

The research philosophy that is being adopted for this study will be that of interpretivism. Interpretivism is a research philosophy that seeks to understand the differences between how people interact in their roles as social actors. (Saunders and Lewis, 2012, p 106). This means that the researcher is not sure about the answers that will be received. The researcher will then have to interpret them in the context of the situation. This in itself could lead to a bias. It would be difficult to use a pragmatic philosophy approach as this approach focusses on the research questions and objectives. This means that the research is seeking specifics. This exploratory research is not looking for specifics, but for general observations. While the objectives may be clear, the research questions are not and hence this approach would be difficult to implement. Similarly it would be difficult to use a positivism approach as this requires uncovering of structured methods that facilitate replication in a law-like manner. (Saunders and Lewis, 2012, p 104). In a positivism approach, the researcher would be looking for specifics or trying to piece a puzzle together. In this case the researcher doesn’t know what he is looking for and will just collect the data. It would be possible to use a realism approach as this philosophy stresses that objects exist independently of our knowledge of their existence. At face value it appears that this approach could work, but there seems to be more quantitative analysis needed to obtain the best results. As a quantitative study would be almost impossible to

do for this topic and methodology, the writer believes that the best approach would thus be the interpretivism approach.

4.2 Why a Qualitative Approach?

Qualitative research attempts to make the world visible through a set of material interpreted practices. “The aim is to transform the world into a series of representations including; field interviews, conversations, notes to self and recordings,” Alvesson and Skoldberg, (2010). The researcher observes the natural setting and attempts to make sense of it and bring it together in a logical and coherent way. -A ‘reflective methodology’ is an extension of qualitative research as suggested by Alvesson and Skoldberg (2010). In a reflective methodology, the researcher looks at four different orientations so as to develop an interpretation of the data.

1. Systematics and techniques in research procedures- This is well reasoned logical interaction with the empirical material. This is the basis for most qualitative research. It can also include ethnomethodology and ethnography. This would justify why there is a question about race.
2. Classification of primacy of interpretation- All research has to be interpreted by an interpreter. This is an acknowledgement that there is an interpretation that could be incorrect. This is a qualified methodological view.
3. Awareness of the political-ideological character of research- The theoretical assumptions are not neutral and will favour or dis-favour responses depending how the questions are asked (not asked).
4. Reflection in relation to the problem of representation and authority- Within the context of the moment, the text can become split or fragmented once it is out of the moment. This undermines the usefulness and the researcher’s authority as the research it not seen in its entirety of the moment.

4.3 Exploratory Studies

The type of study proposed is that of exploratory research that has identified a topic and is an expansion on previous work done. An exploratory study may provide additional answers to questions initially asked and a more detailed study may be required as a follow up so as to obtain more dependable answers. The more common ways of conducting exploratory research are:

- Searching the academic literature
- Interviewing experts in the field
- Conducting interviews

(Saunders and Lewis, 2012, P 110)

Exploratory research indicates a great deal of flexibility as the researcher is not sure in which direction the research will go. Definitive results can only be drawn with extreme caution as it is very broad. It may reveal that an issue that was considered to be of great importance is no longer an issue. In order to obtain meaningful research the writer needs to conduct interviews and to interview those people who are actively involved in the field of teaching entrepreneurship in a school environment.

4.4 Interpretivism Approach

This approach has its roots in the values of the researcher and the writer needs to recognise this. The way in which the questions are structured in the questionnaires will have a bias towards the writer's values which may skew the research results. (Saunders and Lewis, 2012, p 103). Schools are complex and unique. This in itself creates a unique social phenomenon.

4.5 Induction

Induction is a bottom up approach that begins with specific observations that will lead to a broader generalisation and theories. The meaning that humans attach to events becomes critical and therefore needs to be understood fully. Induction emphasises the importance of understanding the research in context. The context is critical to the research. Induction is more flexible and will allow the writer to adjust as the research progresses. It is essential to express experience into the research questions. (Saunders and Lewis, 2012)

4.6 Survey

This is a research methodology that requires a structured collection of data from an identifiable population. Data collection takes the form of questionnaires, interviews and structured observations. The sample is a 'convenience sample' that is taken from a greater population. The sample will consist of six schools, two private, two Model "C" and two township schools. As the sample is a convenient sample, all the schools are based in the Northern suburbs of Johannesburg. The two private schools and the two model C schools are found in the Sandton Township while the two public schools are in the Alexandria Township next door to Sandton. The population of schools in South Africa is far greater than the sample size. Model C schools are fairly consistent across the country. Private schools differ as do public schools. By taking a sample within the Northern Johannesburg area, the author believes that a comparison is more meaningful to anyone wanting to do further research into the subject. Although the population is small, the writer believes that 'pockets of excellence' can be found in this sample because every day entrepreneurs are being born and South Africa does have entrepreneurs. Nieman and Nieuwenhuizen say that we come into contact every day with entrepreneurs without even realising that they are entrepreneurs. A questionnaire has been drawn up and is in Appendix 3. There will be follow up interviews and structured observations which are based on the principle of standardisation. (Saunders and Lewis, 2012)

4.7 Cross-sectional research

A cross-sectional study is a ‘snapshot’ in time. The research aims to identify what has happened up to a point in time regarding entrepreneur education in secondary schools. Thus it is vital that the interviews and questionnaires take place and are answered fairly close together so as to avoid timing distortions. (Saunders and Lewis, 2012)

4.8 Population

The population size is all high schools. This is an extremely large population so a sample needs to be taken. It would be impossible to include all high schools in your sample. This does mean that there can be sample error.

4.9 Sampling and Method Size

A convenient sample of six schools will be selected in the Gauteng area. “Since such a research project scrutinizes the dynamic qualities of a situation (rather than elucidating the proportionate relationships among its constituents), the issue of sample size - as well as representativeness - has little bearing on the project’s basic logic,” (Crouch & McKensie, 2006, p1). These schools will be selected geographically and demographically. As private school fees are in excess of three times that of Model C schools, it provides a large barrier to entry the wealthy people can overcome. A model C school is a school is a school that typically has the best facilities and the best teachers. It is a legacy from apartheid where black children were not allowed to attend white schools. Today model C schools are permitted to top up funding with fees payable by the parents. They have different budgets, based on what the parents can afford. The model “C” schools are traditional and have a history in excess of 50 years and are geographically situated in affluent areas and attract an affluent demographic. Township schools are geographically situated in poor areas and attract a demographic that is not affluent at all. The reason six schools have

been chosen and not three is to allow the researcher to compare results and to obtain a more meaningful conclusion about entrepreneurship programmes at schools. The researcher also went into greater depth with these six schools. If nine or twelve schools had been selected, much of the in depth analysis would have been lost as time wise it would not have been possible to go into the depth that the researcher did. It is an exploratory interview and the researcher is looking for differences. As it is a qualitative interview, there will be no statistical comparison between the research data.

Based on previous studies and the intention to extend previous work especially that of Cullen and Sathorar (2005) a questionnaire has been drawn up that has three sections:- The first section relates to the demographics and geographic of the school and the teacher. This includes experience and qualifications of the teacher. There is an assumption that wealthy areas and wealthy schools pay more than state schools and hence attract better qualified teachers. Furthermore teachers at independent schools are given more freedom to deviate away from the provided curriculum. These assumptions are based on the writer's personal experiences and knowledge of the school education system. The writer concedes that there are exceptions, but on the whole the writer believes these assumptions to be true. St Alban's College, a private school in an affluent suburb of Pretoria has 63 teachers and between them, in excess of 200 degrees and diplomas. There is no shortage of qualified staff members at St Alban's. On average there are 10-20 applications for each advertised teaching post. St Alban's is known to pay their staff considerably more than State schools.

The second portion of the questionnaire relates to the curriculum and the teachers interpretation thereof. The third portion of the questionnaire relates to the extent that the teachers deviate from the theoretical curriculum and introduce a 'practical' element. The issue at the heart of the problem relates to the literature where entrepreneurship education is more likely to fail if there is no practical element. (Schwarz and Stolow, 2006). The writer believes that it is very difficult to introduce a practical element to teaching if

the teacher is not allowed to or can't deviate from the curriculum. This is seen by the researcher as an institutional constraint placed on teachers by the educational department that actually stifles entrepreneurship education. The teacher will do that which is measured. If assessment is purely an exam at the end of the year based on theory, then there is no incentive to add a practical element to the theoretical knowledge base.

4.10 Unit of Analysis

As this is qualitative research the unit of analysis is 'opinion'. All information obtained is based on respondent's experiences and opinions. This is consistent with previous research done by Cullen and Sathora (2005); Swartz and Stolow (2006); Flora (2006) and McHugh and O'Gorman (2006). The research is not trying to prove a point as such, but rather trying to understand what is actually taking place and how entrepreneurship is being taught and if there are any replicable models that can be found.

4.11 Justification of the Questionnaire and Interview Process

The questionnaire is broken up in to three sections: A; B & C. Section A focusses on personal questions and are effectively 'qualifying' questions with respect to teaching entrepreneurship. The two constructs that are being tested in Section A are: Name of school so that it can be categorised as either private, Model C or public. The second construct was 'Are you actively involved in teaching entrepreneurship'? The researcher needed to be sure that the correct person was being interviewed. The other questions were simply to help the researcher paint a picture as to where and how the respondents viewed the world. Hence there are questions asking if you are male or female, how many years have you been teaching for, so as to approximate age of the respondent. Questions around 'do you encourage entrepreneurship and do you see yourself as a risk taker' are seen very loosely by the research and again are viewed with an intention of trying to gage a deeper understanding of the respondent. There are twelve questions in Section A

Section B deals with the actual, 'where', 'what', and 'how' they teach entrepreneurship in the classroom. The three major constructs relate to 'does the teacher network on how to teach entrepreneurship', 'do you get guest speakers in' and 'what are you doing outside the classroom'? There are a total of thirteen questions in Section B.

Section C had open ended questions that are there to encourage participation from the respondents. The respondents gave short answers by were followed up by much deeper interrogation. Here the researcher just listened and help direct the conversation. The intention was to try and find a model or some information that was not known to the researcher so that changes could be made to the current way of doing things.

4.12 Pre- Testing the Questionnaire

A pre-test of the questionnaire was done by the researcher. In the pre-test the researcher used two teachers at the school where the researcher works. The constructs were tested as well as that the wording made sense and there was no ambiguity in the questions.

4.13 Data Collection process

A survey was sent out to the six selected schools. A telephonic follow-up interview was conducted to assess the qualitative data received in the survey. That was collected, collated and analysed. The researcher referred back to the respondent if reasons are not clear or a reason has emerged that the researcher was unaware of its existence. (Saunders and Lewis, 2012) As it is a convenience sample, the researcher chose six participants. The researcher sent the questionnaire to the Business Studies teacher at each school. There was a two stage process because the researcher is not sure about the responses. If there was an issue that has not been identified by the researcher, then in the follow up the researcher was able to delve deeper into the problem.

4.14 Data Analysis

The researcher then collected all the questionnaires and the interviews and analysed the results. These results were then grouped into the various constructs and analysed. There was considerably more data that fell outside the researcher's questions in Chapter 3 and these were ignored. The researcher focussed on the constructs outlined and analysed all data in that context.

4.15 Assumptions

The researcher has made many assumptions regarding this research. The first assumption is that of sample error where the sample taken was that of a convenient sample. While the researcher is confident that it is reflective of the population, it is still a major assumption. All the teachers interviewed had worked at other schools and hence were providing opinions that range across other schools from their experiences.

The respondents often responded in a manner that was consistent to 'fact' when in actually it was their opinion. As a qualitative research there are very few hard facts that can be deduced. There is also the assumption that the respondents are telling the researcher 'what actually happens' when in they could be telling the researcher what they would like to happen. This questions the validity of the actual data. Although the researcher is confident that it is not the case, it is still an assumption.

4.16 Limitations

This research has a number of limitations.

- It is exploratory research
- No conclusive results can be determined
- Further research is need on the subject in order to determine conclusive results

4.17 Conclusion

It follows that a qualitative study should be done to assess whether or not there is a difference a practical component to teaching entrepreneurship is vital (Cullen and Sathora, 2005), but if it is not examined, then it may be left out. Although there is a standard curriculum, a deviation from that may result in greater number of entrepreneurs being created. It would be almost impossible to measure the extent to which a practical component is applied. Research first has to determine whether there is a difference before an attempt is made to quantify such a difference.

4.18 Appendix 1: Questionnaire

Section A

- 1 Name of school _____
- 2 Gender M or F
- 3 Race? _____
- 4 Are you currently teaching entrepreneurship Y or N
- 5 Age _____
- 6 Highest qualification _____
- 7 What grades do you teach entrepreneurship to? _____
- 8 How many years teaching experience do you have? _____
- 9 Do you encourage students to start their own businesses? Y or N
- 10 Do you see yourself as a risk taker? Y or N
- 11 Have you ever started your own business? Y or N

Section B

- 12 How do you teach entrepreneurship?

- 13 Have you had training on how entrepreneurship should be taught?

- 14 Do you network on how to teach entrepreneurship? Y or N

15 What have you found works the best for you when teaching entrepreneurship?

16 Does the curriculum require you to engage in practical exercises when teaching entrepreneurship? Y or N

17 What type of practical activities do you engage your learners in?

18 Do your learners participate in a 'market day'? Y or N

19 Are the financial aspects difficult for learners to grasp? Y or N

20 Have you any successful entrepreneurs? Y or N

21 Do you invite entrepreneurs to speak to your classes? Y or N

22 Are any local businesses involved in your school?

23 There are many challenges in teaching. What is the biggest challenge in teaching entrepreneurship?

24 How do you acknowledge successful entrepreneurs?

25 Do you enjoy teaching entrepreneurship?

Section C

26 How do you think education could improve in teaching entrepreneurship?

27 Do you deviate beyond the curriculum? Y or N

28 If “yes”, what do you do that is not in the curriculum?

29 Do you believe that we can create more entrepreneurs through entrepreneurial education?

30 If entrepreneurial education was to change from its current format, how should it change?

5 Chapter 5: Results

5.1 Introduction

A total of six interviews were conducted. The sample was a convenient sample consisting of two private schools, two Model C schools and two public schools. The results suggested that there are vast differences in the way entrepreneurship is taught at the various schools. The ages of the respondents ranged from twenty-eight being the youngest to fifty-one being the oldest. Teaching experience ranged from eight years to twenty three years.

The experience of the teachers is important as it adds to the legitimacy of the research. Qualifications were also seen as important by the researcher. All respondents were degreed except for one who had a teaching diploma and was currently registered at UNISA (correspondence university) for a Bachelor of Commerce degree. Three of the six interviewees had B. Comm degrees with the other two having Bachelor of Arts and Bachelor of Education degrees. Two of the respondents have Post Graduate Certificates in Education (PGCE). This was thought to be low by the researcher. The researcher determined that although it is a requirement to have a PGCE to work for the State, this was by-passed when the teacher was employed by the school. Private Schools and Model C schools use this loop hole.

The researcher is in possession of a PGCE and feels that although it is a 'nice to have' and agrees that every teacher should have one, it should not be a 'disqualifier' from teaching as other knowledge, experience and passion are felt by the researcher to be more important than a diploma in the absence of a degree. All the respondents are actively and currently involved in teaching entrepreneurship.

Four of the six respondents encourage students to start their own businesses. The other two were 'neutral' in that they qualified their answers with the words, 'maybe' and

‘depends’. This is understandable as the question needs to be put into context. Generally speaking most teachers see being an entrepreneur as more positive than negative. This is a positive attitude by most teachers, but must be seen in context. People who teach entrepreneurship believe it is a positive subject, yet it must not be taken out of context. It would be wrong to assume that all teachers are pro entrepreneurship.

Three of the six see themselves as ‘risk takers’. The other three do not see themselves as ‘risk takers’. This can be seen as contradictory as ‘how can you advise students to take risks, if you are not a risk taker?’ On deeper questioning it was apparent that the teachers were referring to their advice in the context of being a teacher. Teachers see themselves as ‘guidance counsellors’ offering more guidance than advice. The example is to encourage a student to become an engineer or a doctor, when clearly the teacher has no experience in either. Within the ‘context’ of being a teacher it is therefore not too unexpected that a teacher who does not consider themselves a risk taker advising a students to ‘take risks’.

Of all the teachers interviewed, only one teacher had tried to start their own business. The business was in selling insurance. The respondent sees themselves as not being a risk taker. Also the teacher was one of the respondent’s that was ‘neutral’ on whether or not they encouraged students to become entrepreneurs. This would be consistent with experience. When dealing with entrepreneurs there is a positive bias in that successful entrepreneurs will always say, ‘become an entrepreneur.’ But what do failed entrepreneurs say? This study did not focus on the teacher’s experience, but on what is taught and how it is taught. The past experience is only relative from a ‘context’ point of view and the writer feels that it would be misleading not to include experience from a reference point of view.

Five of the six interviewees were male and two out of the six were from a black ethnic group with the other four all being from the white ethnic group. Home language was split

with two being English, two being Afrikaans and the remaining two being Zulu and Setswana respectively. All six teachers taught entrepreneurship in English. All the schools from the sample are English schools which mean that all non-language subjects are taught in English.

5.2 What actually happens in the classroom?

The respondents differed considerably on the question of ‘How do you teach entrepreneurship?’ The most diverse responses came from the private schools where there was an emphasis on ‘outside’ the classroom activities. These two private school respondents used simulations, case studies and presentations from outsiders. The Model C schools focussed on the syllabus used a curiosity approach of pointing out the risks and rewards, magazines, newspapers and one of the teachers has access to promotional material from Famous Brands which is a franchise company. (Not strictly entrepreneurial). The public schools were almost totally text book focussed with one school using ‘role play’. On closer examination and questioning the Model C schools and public schools were very classroom focused, to such an extent that they don’t leave the classroom. The two private schools were less restricted by physical constraints. The private schools have less than 25 learners per class; Model C schools were around 30 learners per class with public schools being in excess of 40 learners per class going as high as 50 in one class. The bigger the class, the less flexible the teacher can be as it requires more time to manage a bigger class. The researcher sees this physical constraint on the teacher as being a major problem. If a private school teacher was sent to a public school, would they do things differently? The researcher feels that the private school teacher would do things differently, but would be limited in being able to replicate what is done in a private school.

Only two of the six teachers have actually had formal training on how to teach entrepreneurship. One of the teachers is a private school teacher who attended a Singapore University where they were taught how to teach entrepreneurship and the other is a public school teacher who studied in Zimbabwe. The researcher sees this as

‘fascinating’ in that the South African schools teach entrepreneurship, yet there is no formal training on how to teach it. The only two teachers who have training on how to teach entrepreneurship obtained their training outside of the South African borders.

The question on networking yielded interesting results. The two teachers with training in how to teach entrepreneurship answered very positively. Two other teachers, one from a Model C school and the other a private school answered a ‘qualified’ yes. The other Model C school and public school responded, ‘No’. The two qualified yesses were with respect to their immediate environment. A partner of the Model C school works for Famous Brands and hence refers to that as ‘networking’ and the other is involved with teacher forums within the school. Both are seen by the researcher as being very limited and situational, more by coincidence than by design. The remaining public school teacher and Model C teacher don’t network at all. If there is consistent networking among teachers then the need for formal training decreases as there would be continuous learning. The researcher sees the lack of networking as an obstacle in teaching entrepreneurship.

What works best for teaching entrepreneurship is seen to be a misleading question. In the pre-test of the questionnaire it was highlighted as a problem, but it was left in by the researcher as it identifies the teacher’s priority with regards to entrepreneurship in the classroom. At face value it seems to be a straight-forward question, but through interrogation it was found to be misleading. It is misleading in that there are two answers. Is the question referring to turning students into entrepreneurs or does the question refer to the student passing the exam? The researcher interprets the answers with reference to the students understanding of entrepreneurship.- Every respondent made reference to guest speakers/ case studies/ or company/ situations that the learners are familiar with. This information the researcher found to be of most value as it is a clear and consistent admission that every teacher goes beyond the text book, even though three teachers said earlier that they did not go beyond the syllabus. This tells the researcher that the current syllabus is inadequate in its current form and the teachers improvise. This improvisation is

proof that teachers go beyond the text book and syllabus with regards to entrepreneurship as the text book and syllabus are not adequate.

Does the syllabus require that students engage in practical sessions?- ‘Yes’ was the unanimous answer, but under further interrogation it was revealed that it is not examinable and hence there is no way in checking if teachers do any practical exercises.

What type of practical activities do you have the learners participating in? This question was answered completely differently by every participant. Private schools did more than any of the schools interviewed; Model C did far less with public schools doing nothing. One public school suggested that the students run the tuck shop. On further investigation it was found that it was limited to four students and could be in no way inferred that all students were given opportunity to participate. Hence the researcher concluded that as a class there was restricted participation which means that the researcher deemed it not to qualify as an activity. The private school teachers were strongly opposed to a ‘market day’ for the following reasons:

- The parents do the work
- It is a once off event that always ends with unpleasantness
- You either have too much stock or too little stock
- Only the ‘food’ stores make money
- Learning is limited. If you do something wrong, you can’t correct your mistake

One private school does two company visits per term with a weekend away per term. Here the students visit different formal and informal businesses. This is expensive and the parents pay extra for the privilege. This is clearly beyond the reach of a Model C school and a public school. Schools by their very nature are situated in residential areas and hence it is unlikely that students could walk to a business. All six schools interviewed were situated in residential areas where there were no businesses nearby.

The other private school had a very interesting concept, 'R10 in ten days.' Here students are divided into pairs and on the Wednesday each pair is given R10. They have every Business class to prepare and the following Friday they have to hand in a 'one pager' of income and expenses and what they did. This has been in place for two years and is growing in success. In the first year the school had approximately 60% participation. The second year 80% of the class participated. Next year the teacher is hoping for 95% participation. "There is always one person who will not do the task." The success of the project has been astounding. The winners made R6 000 in the ten days. The school then takes 20% for its Corporate Social Responsibility (CSR) programme. "The most successful groups planned the most." This is in total alignment with the theory from the syllabus. Every group has to pay the R10 back on the Friday.

The question of do students do a market day was answered in the negative by four schools, the two private schools and the two Model C schools. A market day is when the school puts aside a day where the students can bring various items to sell to other students. These will include home industry type products, art work, little things that the students make and can sell. Inevitably you either have too much product or too little. Parents often get involved and it becomes a parent market day as opposed to a student market day. The two public schools, one said they do a market day and the other said they were trying to do a market day. The public school that did the market day was very aware of the problems and 'hated' doing it. It was a legacy left over from a previous teacher that continued. He wanted to stop it for the reasons previously discussed. It is widely accepted that market days do not encourage entrepreneurship.

All the teachers except one said that the financial aspects teaching entrepreneurship were a major obstacle and that the students battled to understand financial concepts. On investigation as to why the one teacher said the students had no problem with financial concepts it was revealed that all the Business Studies students did accounting as well. This skewed the information. It is clearly evidenced in the responses that students battle with

financial concepts of business. This may be a reason in itself for people not wanting to become entrepreneurs. However, it falls outside the scope of this research.

Does the teacher know of successful entrepreneurs that have progressed through the school? Both the private school teachers responded in the affirmative and could provide names of successful entrepreneurs. The others all said, 'No', with the exception of one of the public school teachers. On investigation he could not name any, but he was adamant that there are successful entrepreneurs from his class in the community. Private schools tend to have a greater alma mater and hence it is possible that this could be skewed. The researcher believes that there is a greater chance of success by going to a private school as there seem to be more opportunities and opportunities are a vital component of success. This is purely the researcher's observation based on the information before him. More research would be required to prove this conclusively.

Are the students exposed to guest speakers during class? The two private schools responded in the affirmative and had both had guest speakers this year and last year. One Model C school and one public school responded positively to this question. In both cases they had people in the past and no one had spoken in the current year. The two that said, 'No', referred to institutional constraints as being the biggest obstacle. These obstacles are the size of the class and the number of classes in each grade. "How do you get a guest lecturer to lecture four times, the same lecture with an hour wait in-between each lecture?" Private schools have fewer classes and have more flexibility in that they can swap classes with other teachers. There is far less flexibility to accommodate a guest speaker in a Model C school and a public school.

Are there school business partnerships? The two private schools said they encouraged school/ business partnerships. This may be as a result that private schools do not receive any government subsidy. Schools rather than businesses seek partnerships and the spin-off is the relationship. As Model C schools and public schools are funded by government,

their first port of call for a government school would be local government. Famous Brands is involved with one school, but that is more through a relationship with a teacher and a Famous Brands employee. This is seen as fortuitous by the researcher and is not believed to be the norm. School/ Business partnerships could be explored further in the future, but fall outside the scope of this research.

The biggest challenges teaching entrepreneurship vary from school to school. Most problems are related to the learners. This would include getting them motivated to think differently and to identify gaps in the market to institutional constraints. Institutional constraints include lack of resources, inflexibility for you to 'miss other classes' for site visits. Bureaucracy in order to comply with governments safety standards is seen as a total de-motivator of teachers. One teacher highlighted that you need to send in the Bus Drivers ID and Licenses before they would even approve a trip. "The red-tape is so intense, that you are better off not even trying."

Are successful entrepreneurs recognised by your school? Only one school responded in the affirmative. One private school recognises the top achievers in the 'R10 and ten days' programme at assembly where they are called out in front of the whole school. All other schools have no recognition for entrepreneurship. Where is the incentive to become an entrepreneur at school? Recognition is a big motivator and there is almost no recognition.

All the respondents enjoy teaching entrepreneurship. The different approaches to the complex subject of teaching entrepreneurship yields completely different results. All the respondents were passionate about teaching; and teaching entrepreneurship.

How could educators improve teaching entrepreneurship was answered completely differently across the schools. The two private schools teachers believed that more training of teachers on the subject is required. They suggested work groups among teachers. The two Model C teachers suggested a more integrated approach with other

subjects such as ‘art and design’ and ‘accounting’. The two public school teachers suggested more practical exercises for marks. There is a lack of practical application in the current syllabus.

Five of the six teachers interviewed admitted to deviating beyond the curriculum. All the teachers added in their own practical assignments as they felt the syllabus was inadequate in its current form. The one teacher from a public school felt that he was unable and not allowed to deviate from the curriculum and hence did not.

Every teacher interviewed believes that entrepreneurs can be created through education. Teachers believe that once people are armed with the skills of entrepreneurship that they would take more risks.

How should entrepreneurial education change? All six teachers believe that the current entrepreneurial component needs improvement. All six believe there should be a greater practical component that is evaluated. The two private school teachers are adamant that it must be over a period of time. Their experience suggests that market days; restaurant days; fates or any one-off event actually cause more damage and limit learning outcomes. Business/ school partnerships are becoming more common overseas and could be very useful in South Africa. Here a business ‘adopts’ a school. The business then takes a number of learners from that school and trains them in various fields. Different executives then address the school on different business issues on a termly basis. It enables schools to know what businesses are looking for and helps management understand exactly what is happening in a school.

5.3 In-depth Interviews

There are vast differences between all the six schools. All the schools educate boys and girls. Many private schools are monastic in their approach to education. It was very obvious that resources were the major differentiator between these schools. The private

schools had two overseas tours per year. One being a sports tour, defined by your ability to play a sport and ability to pay, and the other being a “Cultural Tour”. Within the context of this cultural tour, both teachers have taken business tours all over the world with the Far East being the major focus. Preferred destinations that are chosen are: China; Thailand; Vietnam and Singapore. On further investigations it was revealed that these places offer best value for money and exposure to greater entrepreneurial enterprises. These places are emerging economies that offer a greater insight into entrepreneurial business. One of the teacher’s has a small trading business where it is possible to purchase products for family and friends and pay for his entire trip. This teacher travels to the East three times per year. Because the teacher doesn’t aim to make a profit, just cover costs, he does not see his activities as being a business. On the survey this teacher stated that he had never started his own business. This teacher encourages his students to look for trading opportunities. The researcher sees this as being very entrepreneurial and hugely educational.

The other private school teacher encourages students to make a financial contribution to their tour. She encourages the students to ‘work for’ all their spending money. So the capital cost (flights, accommodation and meals), are covered by the parents, the students have to provide all their spending money. In the main, most parents and students buy into this concept. These students then get weekend jobs ranging from waiting tables, baby-sitting, selling cakes to other entrepreneurial activities such as car washes. On the return from the overseas tour more than half of the students that paid for their own spending money continued doing what they did in order to obtain additional spending money. When the teacher was asked if she saw this as entrepreneurial, she said, “No.” The researcher sees many of these aspects as being entrepreneurial with baby-sitting being a case in point. The teachers did not see baby-sitting as entrepreneurial as she did it when she was younger. For her it was ‘a way of life when you are young’. This teacher also said that she had never done anything entrepreneurial in her life.

The two public schools had never had an overseas tour, while the two Model C schools have a tour if not every year, every second year. All the tours for the Model C schools are sport related. If a student/ parents cannot afford the cost, they are replaced by a weaker player who can afford the cost. These tours although they are called, 'sports tours', are seen as educational. When asked if they did any 'cultural tours', both the Model C schools responded that the school was talking about it, but to date none had been organised. Both the Model C teachers interviewed had been overseas with one having lived overseas for five years.

In the public schools, one teacher had not been out of South Africa and the other had only been to Zimbabwe. Neither of the teachers had been overseas. The researcher believes this to be a limiting factor for the teacher to relate what happens in other countries when the teachers have not seen it first-hand.

5.4 What kind of guest speakers do teachers get in to speak?

Both the private schools make extensive use of guest speakers. These guest speakers are typically related to the teacher's network or the network associated with the school. One school had the CEO of Highveld 94.7 radio station talk. It turns out that the CEO has a child enrolled at the school. The other had an executive from Standard Bank come and talk on 'financing entrepreneurs'. This executive was at university with the teacher and the executive did it as a favour for the teacher. In both the private school cases the school has an auditorium and other classes were invited to attend as well. At a private school the teachers have the ability to take students out of other classes for guest speakers. This is not the case at Model C schools and public schools.

The Model C schools confirmed that it is extremely difficult to get a guest speaker in as there are five classes that are spread throughout the day. In order to get a guest speaker, they would have to do the lecture 5 times and it would practically take the whole day. Most executives can spare a couple of hours, but not the whole day. There is total

inflexibility by the system and other teachers to allow a guest speaker. The other Model C School did have a guest speaker in the form of an executive from Famous Brands arranged through the partner of the teacher. Again it was seen as a favour to the teacher and took the whole morning. The executive gave the same speech four times.

The public schools do not have guest speakers come and talk to the class. Again the speaker would have to do it many times and it would take the whole day. The two public school teachers do not have a business network like the private schools or the Model C schools. One teacher studied through Unisa (correspondence) and the other studied in Zimbabwe. This would mean that they don't have the same university network that the other four teachers have.

The two private schools also seemed very 'picky' in who they allowed to come and talk. One of the private school teachers stated that they look for relevance to a topic. Therefore they would not allow a guest speaker just for the sake of hearing a speaker. It was stressed that the school needs to produce good marks. Anything that 'produces' marks is tolerated and anything that will not add to understanding of the subject is 'carefully considered' before it is allowed. The example given was Nelson Mandela. Any teacher would stop class for the class to listen to Nelson Mandela. If a person had run the Great Wall of China (Braam Malherbe) and wanted to speak to the class, the teacher would first interrogate Braam, find the relevance to the students and then make a decision. The question was asked if a speaker could only do one speech, would they allow the speaker to only speak to half the class. In both private school cases the teachers said that they would, but chances are they would be able to facilitate that the speaker can speak to everyone.

The two Model C schools said that they would not have a speaker unless he could address all the intended recipients. If they are seen to be treating some students better than others it is seen as being unfair and then there are consequences. Both teachers believed

they are easily explained, but the hassle of trying to explain why that particular group was chosen and not another is not worth it. There is political pressure on teachers to perform. If students are taken out of your class, it means you have to catch up work. This means you are always racing to get through work and can provide an excuse for under performance. Institutional structures are very results driven and hence try to close 'loop holes'.

The two public schools don't have any one coming to talk to them. The teachers agree that it is structurally un-catered for in their current set up. The teachers recognise the value in having outside speakers, but say that it would be impossible in the current set-up.

Company visits make up a large part of the teaching in private schools. The two private schools have numerous company visits. These include companies like BMW, Simba, Coke, SAB Miller, ACSA, walks around Spar, Pick 'n Pay and Checkers. One teacher stressed the importance of taking every-day occurrences and having the students start asking questions around, 'how does a bean end up in a tin of baked beans and on the shelf of Pick 'n Pay?' There is an internet based game sponsored by McDonalds that the grade 8's and 9's play. It starts with farming then moves onto the delivery of products. The whole emphasis is on sustainability that allows for robust class discussions. The students then have to analyse the effects of their decisions. This facilitates the transfer of knowledge and the students start learning about the long-term impact of their decisions.

Every term one teacher of a private school takes the students away for a weekend. These trips go to Parys where the students visit a berry picking farm. They speak to the owner about the risks and rewards and try and get a better understanding of the essence of the particular business they are analysing. They also visit a coffee plantation and contrast it with the berry farm. Also visited is a Biltong factory (American word is 'jerky'). Finally the students visit an alcohol spirit making enterprise called, 'Mampoer'. Other trips go to the town of Cullinan north of Pretoria. Here the focus is on tourism and curio shops as a

business. Every year there is bus trip to an informal settlement where the students have to go looking at all the entrepreneurial businesses that operate in the settlement. This particular teacher is also author of a grade 12 text book. Pass rate is 100% and 95% of all students go study further at tertiary institutions for this particular teacher. Again in order to attend the school one has to have the financial means at one's disposal and pass an entrance exam. The school does exclude students on the basis of academic ability or lack thereof. The teacher in every class speaks for a maximum of 15 minutes and then the class participate in activities. These include games like Monopoly. There is a formula that can be applied to Monopoly that ensures you win every time. The teacher believes this is vital that the students understand planning and strategy. Other teaching mediums include: Youtube. The teacher has access to internet and can down load video clips at will. In any week of 5 periods there are at least three Youtube/ video clips about business that are shown. Newspaper articles; magazine articles and pod casts are used to aid the learning process. When asked how the articles are actually used, the teacher explained that he scans the article and then uses the projected article on the screen so that everyone can see it. **While this is seen as a fantastic teaching method by the researcher, it is recognised as being very resource intensive.** The teacher also tries to incorporate other subjects with the business and entrepreneurial side of teaching. Therefore Design and Accounting are invited on all the excursions. Entrepreneurship is in no way limited to one subject or one teacher. It is facilitated across the board.

The other teacher from the private school has an interesting programme of 'R10 in ten days'. This programme is currently run across Business studies and Accounting and next year will be run across the entire grade 10 class. The students are divided into groups of two and each group is given R10. It is a Wednesday morning when they are given the money and they have to hand in a one page document of what they have done and how they did it on the Friday. This document must include an income and expenses section. **Clearly the accounting students are better at this than the Business students, but the concept is seen in practise.**

The winners are then recognised in the school assembly and have a five minute speech where they explain what was learnt and how they did it. The winners received a standing ovation from the school in recognition of their achievement. The learning that came through in the interview was that the students, who planned and prepared the most, did the best. This is straight from the syllabus. The understanding of the importance of planning is best seen in practise. The students then donate 20% of their profit to the school's CSR programme. The school raised R6 000. The remaining money was retained by the students for their hard work. The winners set up a 'car wash' in Kyalami Estates. They did all the work and contribute their hard work to their success. The days leading up to the weekend where they did the car wash was used for market research and advertising. This team was a boy and a girl.

The team that came second was two girls who went to the one mothers office where there were many women working. These girls offered manicures and pedicures at a person's desk so they could continue working. The teacher explained that South Africa is moving into a service economy with the most successful entrepreneurs from the group offering a service. Many people did sell products ranging from 'small' sweets with a high mark up to some people selling R10 products. The services were far more successful than those that sold products. All the services that were offered were labour intensive.

The success of this programme is seen as key for the researcher for it tackles two vital constraints in the economy, lack of capital and high unemployment. In order to reduce unemployment we need to use labour far more productively in in the economy.

The most important aspect of this exercise is that it can be rolled out across every school in the country. Furthermore it would be possible to get business involved. Businesses could 'sponsor' the programme. For a business to sponsor a public school of 1 500 pupils, it would cost R1 500. 300 per grade (only grade 10) divided by two would be 150 teams,

multiplied by R10 would equal R1 500. This would enable businesses to recruit independent thinkers who can create value. The researcher believes this would have far reaching consequences for the economy.

On deeper discussions with the teacher it was revealed that this is a process and that the first year that it was done there was only 50% take up by the students. The second year there was a 70% take-up by students and in year three there was 95% take-up.

The in depth interviews of the two Model C schools revealed a number of important factors. One teacher has a Bachelor of Arts degree and has had no training on how to teach entrepreneurship. He makes extensive use of an executive of Famous Brands to explain franchising. In order to be a franchisee a capital invest of R1,25m is needed as a minimum. For a person leaving school this is a massive barrier to entry and hence many of the students feel totally despondent. The teacher stressed that there needs to be more workshops where teachers can swap ideas. Also there needs to be realistic practical exercises that the students can do. It is very difficult to teach students how to do a business plan on a totally fictitious or abstract company. Even getting students to do a business plan for a franchise is too abstract to grasp. Furthermore the business plan expectation from the syllabus is actually more advanced than is required by Famous Brands in an actual example. This brings into question as how in touch are the writers of the syllabus with what is going on in the actual world. Even Famous Brands has a department whose function it is to assist potential franchisees write business plans. Yet the syllabus requires each student to write a plan superior to what is actually required in the market place. This is very demotivating for teachers and students alike.

The other business teacher from a Model C school was critical of the syllabus from the point that it lacked practical examples that would help students understand the concepts from the syllabus. Both teachers felt that entrepreneurship should be combined with other subject such as Design and Accounting and in both cases this was not done. The

institution forced them to work in silos and all subjects are kept totally separate from one another. This seems to create a large amount of frustration with teachers and students.

The two public schools were also looking for more practical examples as their constraints are the syllabus and they do not vary from the syllabus at all. Again each teacher and each subject operates in a silo and there is no cross pollination of subject and ideas. There has never been a combined project where two subjects combine to produce one project. The assessment process doesn't allow for it.

5.5 Conclusion

There is no doubt that the approach to entrepreneurship differs across the three different types of schools. Many of the approaches to teaching the subject were within the text book, yet there were instances where the teachers had gone beyond the text book and achieved some remarkable results. These will all be discussed in the next chapter.

6 Chapter 6: Discussion of Results

6.1 Introduction

The data was collected in two forms. The first set of data was collected via a survey, while the second set was collected through in-depth questions. Each interview was in excess of an hour with two interviews being longer than two hours.- Many aspects of teaching entrepreneurship were discussed and many teachers felt frustrated in their attempt to teach entrepreneurship. Teaching entrepreneurship requires additional skills which are covered in commercial degrees while those teachers who attempt to do it with straight teaching degrees battle to get the concepts across. This is evident in the literature review (Cheung, 2008) and has been confirmed in the surveys and interviews.

The greatest challenge in teaching entrepreneurship is teaching the practical element. This is consistent with Cullen and Sathorar, 1995. There is a lack of a practical component within the syllabus. This has come through very strongly in the surveys and interviews. There is a clear lack of guidance for teachers to engage in the practical side of entrepreneurship. There also seems to be a lack of incentive to participate in the practical side of entrepreneurship. The model C schools and public schools focus on examinable material. Since there is no exam or assessment relating to the practical side of entrepreneurship, in most cases it is not done. Only theory is discussed in class. This is exactly what Cullen and Sathorar, 1995, found. Seven years later entrepreneurship is taught the exact same way in the text books. The author has determined there is not enough 'practical education' to address the large unemployment levels experienced by the youth. Equipping school leavers with only theory is not enough to even attempt to create more entrepreneurs. This is a view shared by all the interviewees and that of Steenkamp, van der Merwe & Athayde, 2011. All the interviewees said that there was not enough being done at school level to create a 'culture of entrepreneurship'. This culture of entrepreneurship is vitally important as pointed out by Cheung, 2008 and Lobler, 2006,

added that America is losing their entrepreneurial spirit. This is a direct reference to a culture of cultivating entrepreneurs. All the interviewees said that is very difficult to measure the success of entrepreneurial programmes as identifying the actual ‘players’ is difficult which is consistent with Ravin, 2008, when he looked at Croatia. This means that it is impossible to divide a class into half and suggest one half is going to be entrepreneurs and the other half is not. Teachers are unable to pick out who is going to be an entrepreneur and who is not going to be.

6.2 Institutional constraints that prevent teaching entrepreneurship

There are definitely institutional constraints preventing teachers from teaching entrepreneurship. The researcher has divided these constraints into three main areas:

1. Recourses
2. Teaching structure within the school
3. Teacher networks

6.3 Resources

There is no doubt that the private schools are better resourced than the Model C schools and the public schools. This was evidenced in the company visits that the private schools were able to undertake. Weekends away looking at businesses and company visits are common events in private schools. In the Model C schools bureaucracy and funding are a major cause for not going on outings. It was very clear in a Model C school that funds were limited and teachers could not ask parents to pay additional costs for outings. In one Model C school the teacher went as far as to say that they are discouraged in that if one child can’t afford the extra fees, the school then had to pay. This meant cutting budgets elsewhere and it became a school management nightmare. The lack of resources does not contribute to ‘creating a culture of entrepreneurship’. Levine, 2006 was very emphatic that there needs to be a culture of entrepreneurship. A lack of resources contributes to a

lack of entrepreneurship culture and sends motivation into a downward spiral. It was very clear from the four non-private schools that the teachers did not have enough time to source resources. Outings in the South African context place a huge amount of pressure of staff in that so much can go wrong. Things that concern teachers are what if the bus is in an accident or breaks down? What happens if a student is hurt, hit by a car, abducted, left behind? The teachers have to deal with Government bureaucracy when they are not equipped to do so.

6.4 Teaching structure within the school

Lack of flexibility was cited as a major obstacle by four of the six schools with the private schools saying they did not have flexibility in which to re-schedule and to 'borrow' classes from other teachers. Gray and Field (2006) attributed the success of Bill Gates, Michael Dell and Steve Jobs to their ability to be 'outside the classroom'.- Only one of the four non-private schools had had a guest lecturer on entrepreneurship. This guest lecturer was a partner of the teacher and hence visited the school. The researcher believes that a teacher network of business people is a vital component for teaching entrepreneurship.

6.5 Teacher networks

The two private schools made extensive use of their networks outside the classroom. This was particularly evident when both schools arranged outings. Some of the company visits were organised by parents who arranged a visit to 'their' company. The private school placed a large emphasis on practical education outside the classroom. This contributes to a 'culture of entrepreneurship' as discussed by Flora, 2006. Matlay and Carey, 2007, said that the knowledge worker needed to acquire skills and knowledge from a variety of sources. A network to offer this variety can be obtained by teachers in many ways. The most common is through university alumni. The two public school teachers did not have alumni to draw on as one studied in Zimbabwe and the other at UNISA (correspondence university).

6.6 Differences in teaching entrepreneurship across the income spectrum-

The researcher found considerable differences across the schools in the approach and teaching entrepreneurship. The private schools showed a considerable amount of flexibility and were totally open to new ideas. The Model C schools were very rigid in their approach. The private schools were afforded greater opportunities in that they have greater resources. There is no doubt that access to resources is a vital component of teaching entrepreneurship. Henry, Hill and Leitch, 2007, found that the traditional way of teaching entrepreneurship was inappropriate. They stressed the need for a more dynamic and non-traditional approach. While the writer doesn't believe that private schools have got a winning formula, the private schools do things differently and are more in line with the thinking of Henry, Hill and Leicht, 2007, than the Model C schools and the public schools. The private schools show a greater scope to tackle the task and include a greater number of varieties in the approach. Also the writer believes that smaller classes and fewer numbers in the grade make it easier for teachers of entrepreneurship to be flexible in their approach. The system allows teachers to be flexible and hence they are. The writer believes that if teachers in Model C schools and public schools had the same environment as that of private schools, they would do considerably more than what they are currently doing. This is consistent with Flora, 2007 in that there needs to be a culture of entrepreneurship. This culture is far worse in the Model C schools and the public schools compared to that of the private schools.

6.7 Are there practical exercises that can be replicated across the entire school system?

Much of the literature has focussed on problems associated with teaching entrepreneurship. Cheung, 2008, observed many different approaches to teaching entrepreneurship in Hong Kong. These included case studies, workshops, competitions, didactic approach and mentoring. The research just focussed on what was being done and had no way of measuring success of one method against another method. Cullen and

Sathora, 2008, clearly criticised the lack of a practical component. Matlay and Carey, 2007, found younger institutions to be far more proactive than older institutions. The researcher has found this to be true. One of the private schools has been in existence for over 100 years and the other is 17 years old. The younger of the two schools seems to be far more open to new ideas that have a high level of risk.

The two public schools and the two Model C schools didn't offer any new or exciting ideas for the researcher. The one private school offered weekends away, site visits and numerous tours. While this would be ideal to replicate, the funds and resources are not available to all. The other private school offered a practical component that the researcher believes is very easily replicated. The school calls it, "Ten rand in ten days." It is an easily implementable solution to a massive problem. This addresses the problems of a 'lack of practical problems'. It is relatively cheap to implement and could be replicated across the entire schooling population. The researcher believes it hits the heart of creating a 'culture of entrepreneurship' which Riven, 2008, and Levin, 2006, criticised as being a major obstacle to entrepreneurship.

6.8 How it works

It is currently applied to grade 10's. The class or grade is divided into groups of two's. Each pair vital in stimulating students to learn about entrepreneurship. (Pitway and Cope, 2007). Through a process of elimination groups form fairly quickly with minor assistance from the teacher. This is done a week before the actual project officially starts. This enables the pairs to 'plan' what they are going to do when they receive their R10. The teacher noted that planning is a vital component of success of the project. The students, who planned the best, generally achieved the best results. The teacher gives each pair ten rand on the Wednesday morning. The following Friday, the students have to pay back the ten rand to the teacher, 20% of their profits to the school's Social Responsibility Fund and the students can keep the rest.

In 2012, the winning pair consisting of a boy and a girl made R6 000. A truly remarkable achievement for two fifteen year old school children. The winning pair used the Wednesday and Thursday to advertise and then started a car wash on the Friday after school, Saturday and Sunday. The girl also did 'office manicures and pedicures' while ladies were at their desks working in the afternoons after school. These were actually paid for by the employer as a 'treat' for his lady staff members, so they didn't have to go out and waste office time. This would be consistent with modern thinking that business is about 'finding and sustaining a customer'. This particular girl now has a weekly contract where she goes to the office once a week and does manicures and pedicures. None of this would have happened if it wasn't for the 'experiment' of the teacher. This falls outside any text book and assessment.

Other success stories ranged from basic trade transactions where the participants would buy sweets, then sold them for a mark-up, re-invested the profits and bought more sweets. Creative solutions included 'trading-up'. The pair purchased a ten rand item, and then swapped it with someone who had a fifteen rand item. They kept swapping their item for an item of higher value. This happened fifteen times and then they sold their final item for R350.

Henry, Hill and Leicht, 2007, believed that innovative ways to problem solving are vital in equipping students to face the future. They even go as far to say that entrepreneurship is now more important than it has ever been in history. Pretorius, Niemand and van Vuuren, 2007 stated that entrepreneurship can be both beneficial and detrimental to society and hence they stressed that it should be compulsory in any education system.

6.9 How could 'R10 in Ten days' be implemented?

The largest school that was interviewed had 1 500 pupils in total. It is a very large school and there are not too many schools larger than it, although there are some. This equates to 300 per grade or 150 pairs. The amount of up-front money laid out would be R1 500 in

total for a very large school.- This is not an exorbitant amount and all schools could afford it, especially if they get it back after the 10 days.

The researcher also sees an opportunity in school / business partnerships. Scales et al, 2006, found that when businesses got involved in schools, academics increased across the board. In a bid to bridge the gap between the current school education and the skills required in the workplace, it would create an incredible opportunity for businesses to select great, creative people who have 'proved' themselves. Businesses could get involved and offer mentorship programmes as prizes for those students who do well.

6.10 Creating a Culture of Entrepreneurship

There is no culture of entrepreneurship in South Africa. This is seen in the large unemployment figures, especially amongst the youth. If every school introduced a 'R10 in ten days' challenge that was supported by the entire school, parents and communities perhaps a culture of entrepreneurship could be developed. A culture of entrepreneurship is at the heart of all great entrepreneurs. They were supported by their communities and hence were in an environment that allowed them to succeed. This view is supported by Walters, 2010, who firmly believes that a change in attitude towards entrepreneurship is the most important starting point.

6.11 Potential problems with the Model

When the private school first introduced 'R10 in ten days', the take-up was about 30%. This means 70% of the students did nothing with their R10. The next year the take-up was 70% with the third year having a take-up of 90%. The teacher believes that 90% is optimal as there will always be students who refuse to participate. This means that teachers, principals and schools need to be educated to expect these results. It is not going to work in year one, but will work over time if there is the drive and commitment from the key players, namely, teachers and schools. Smith and Petersen, 2006, found that innovation

by itself was not enough to create entrepreneurs. They found that entrepreneurs had to be institution builders in order for a culture of entrepreneurship to exist. An institution is defined as a formal large organisation that meets all legal, social and ethical requirements. There is a vast chasm that has to be crossed from high levels of unemployment to institution building. Innovation, creativity and trying different things seem to be the driving force of entrepreneurship. The following observation was made by the research while interviewing the respondents. A vital component of learning is failure and South African culture does not tolerate failure. Fear of failure often prevents people from attempting something different. Entrepreneur programmes have the ability to remove the stigma of failure and allow for people to become more creative. Fear of failure is a very real obstacle that could cause a problem with this model.

6.12 Are there formal and informal structures that allow teachers to share information about teaching entrepreneurship?

The researcher found there was very little in the way of formal training for teachers to help assist in the didactic of entrepreneurship. The two public school teachers interviewed did not have commerce degrees and only one of the Model C schools had a commerce degree. The two private school teachers interviewed both had commerce degrees. None of the teacher's interviewed had owned their own business before. Only one of the Model C teachers had actually been in business. When asked if he would possibly consider going back into business, he said that it was a real possibility if something came up. The two private school teachers felt that they did not have enough personal experience to offer teacher training on entrepreneurship. A changing economy will lead to a growth in small enterprises. (Cheung, 2008).

There is definitely a need for teacher education in the field of entrepreneurship. The biggest obstacle is 'confidence' of the teachers. Many teachers who are doing an excellent job have nothing to benchmark themselves against. This to a large extent can be summed up by Henry, Hill and Leitch (2007) when they argued that entrepreneurship is part art and

part science. It is very difficult to offer advice as an expert when so much of success is art or 'luck'.

There is definitely an opportunity for teachers to get together both formally and informally in order to exchange ideas on the didactic of entrepreneurship. This could take place formally as a workshop or informally as a 'coffee meeting' where a group of teachers can talk about their ideas and share their problems.

The researcher feels that there is a 'silo mentality' among teachers and problems are not shared. This is evidenced in the model C schools and the public schools where teachers 'guard' their time. They will not offer up their time for the greater good of the pupils as they are measured on results. The researcher would argue that the measurements to assess teachers are wrong. If the wrong things are measured, the wrong things will be done.

6.13 Conclusion

The findings definitely support the literature review. There is no one answer to teaching entrepreneurship and the author best describes it a 'craft', part 'art' and part 'science'. The author believes that through this research a major finding has been made. "R10 in ten days," is a practical exercise that can be rolled out to every school in South Africa. The author believes this to be a revelation in being able to bring a practical component to entrepreneurship. The author recognises that it is not without its potential problems. The biggest potential problem is 'buy-in' from the students.

There are definitely 'institutional constraints' that hinder teachers in their ability to teach entrepreneurship. These include 'time-table constraints', meaning that teachers find it hard to change or swap classes for a guest speaker or an outing. This finding is consistent with the literature review.

There are major differences in how entrepreneurship is taught across the income spectrum. From weekends away and overseas tours at the top end to straight text book learning with no excursions and no practical component in entrepreneurship at the lower end. The literature review highlighted a lack of practical component as a major problem in teaching entrepreneurship. With specific reference to the private schools: - Being taught by a teacher who can travel and cover costs through a small amount of trade is seen as hugely advantageous in his attitude towards entrepreneurial and risk. The researcher found it interesting the motivation for doing what the students did was totally 'goal orientated'. It was specifically 'event' driven with the event being the overseas tour. The researcher finds these activities to be extreme and to be a function of financial resources available only to the top 1% of the nation. While the researcher believes these activities to be hugely beneficial to the students, the ability to replicate all these activities across schools is zero.

There is definitely a lack of formal and informal structures that allow teachers to exchange ideas about how to teach entrepreneurship. This is consistent with the literature review as there are so many different approaches to the problem. The researcher sees this as a major problem in teaching entrepreneurship.

7 Chapter 7: Conclusion and Recommendation for Future Research

7.1 Introduction

In South Africa there are more people receiving State assistance than there are tax-payers. Government has made job creation its top priority, but an increased civil service is not the answer. Neither does the answer lie in big business creating more jobs. The solution is in the small and micro enterprises that encourage entrepreneurship. (Pretorius, Niemand and van Vuuren, 2007). How is it that some countries are managing to create entrepreneurs while other countries are not succeeding? There is a need for entrepreneurs, but very little research has been done to actually look ‘what is being taught’. Are there models being used in some classrooms that would benefit the community at large? This research did find a model that the researcher believes could change the way entrepreneurship is taught in schools and could contribute to the economy as a whole.

The model is aimed at grade 10 students and it is called, ‘R10 in ten days’. Students are ‘prepared’ in class and then on a Wednesday are given R10 in pairs. They then have to go and find a way that enables them to make that R10 grow. On the following Friday the students have to pay the R10 back, pay 20% to the school, and they can then keep the rest. This model can be implemented in every secondary school in the world. This model is ‘cheap’ and easily implemented. It meets the requirements of Rae (2005), in that Rae argues there are not enough practical exercises when looking at entrepreneurship. It also meets the requirements of Lobler (2006) where Lobler argues that the greatest challenge is getting entrepreneurs to realize that they are part of the community and they need to function in that community.

Are there different ‘pockets’ of the economy that are managing to create these entrepreneurs while the majority is not succeeding? This is not a situation that is unique to South Arica. Lee, Chang & Lim (2005) found that the United States was falling behind other countries such as South Korea in the area of entrepreneurship. Cheung (2008) found

that Hong Kong was lagging behind other eastern countries in the area of entrepreneurship. The researcher believes that is model will address an aspect of this problem.

What is entrepreneurship? According Rae (2005) there are two very important elements that must interact in order for entrepreneurship to be facilitated. Learning is the first and it is an integral part of the process. These are seen in social and behavioural activities which have an impact on economic aspects. The second is the conceptual model applied in learning process where it is applied in the entrepreneurial education and development. “It can therefore be explained as an inter-related process of creating, recognising, and acting on opportunities, combining innovating, decision making and action,” (Rae, 2005, p 324).

This paper looked at the education system at high school levels in an attempt to try and understand what certain economic sectors are doing differently to other sectors. The writer looked difference in entrepreneurial education across the income spectrum specifically in the classroom.

Entrepreneurship and knowledge are considered to be the last factors of production. The other three being: Land, capital and labour. Chi Anyansi-Archibong (2010) suggested that entrepreneurship and knowledge are the most neglected factors of production as they are not as tangible as the other three. The writer has to agree with this statement and in this paper found that traditional teaching dominates entrepreneurial teaching where Henry, Hill, and Leitch (2007) said that traditional teaching methods when applied to teaching entrepreneurship were inappropriate. They argued that for any developing economy to advance there is a real need to foster a culture of entrepreneurship.

To a large extent this is not new as Peter Drucker in 1999 coined the phrase, “Knowledge worker.” The term was used to describe young high-tech employees in the emerging high-tech industries of Silicon Valley. (Chi Anyansi-Archibong, 2010). By 2001 the term was well entrenched in high-tech environments. Coupled to this was a strong emphasis on entrepreneurship. Young, bright people were encouraged to come up with innovative ways to sustain a competitive advantage. New ideas were well rewarded and encouraged. There were incentives for coming up with new ideas. Government policy affects entrepreneurial activity within a country according to Chi Anyansi-Archibong, (2010). The researcher argues that the Government can now play a much more meaningful role in creating entrepreneurs by using the ‘R10 in ten days’ in the education system.

A country that suffers from high unemployment fails to capitalise on a key factor of production, namely labour. For a developing country to maximise its economic development, it needs to effectively use all its factors of production in an effective way. High levels of unemployment have all kinds of social consequences associated with it. An entrepreneurial culture stimulates the economy by creating jobs and can alleviate many of the social consequences associated with high levels of unemployment.

In Nickels (2004), an analysis between rich countries and poor countries highlighted that knowledge and entrepreneurship are the most dominant causes for the wealth of a nation. Many poor countries have an abundance of land, labour and natural resources, but are still poor. Some countries like Japan have limited land and natural resources, but have emerged as economic power-houses of the world. Institutions like the World Bank and International Monetary Fund (IMF) have made it possible for poor countries to access capital. Through various funding agencies it is possible to gain access to funding. The issue is the ability to utilise such funds in a productive manner that require knowledge and entrepreneurship.

Every country has success stories about entrepreneurs. Unfortunately some countries have fewer entrepreneurs than other richer countries. There is definitely a link between richer countries and the number of entrepreneurs that the country has. This is supported by Riverin, 2006, and Levine, 2006 where they express concern for the lack of entrepreneurs in both Croatia and the USA for this very reason. What are the requirements to develop entrepreneurial skills for a country? If the school curriculum was altered, could a country develop more entrepreneurs? There is definitely a link between entrepreneur education and entrepreneurs. (Cheung, 2008; Matlay and Carey, 2007 and Lobler, 2006). Entrepreneurial education does create more entrepreneurs. A practical element is seen as vital.

The research also found that teachers tend to work in silos. There is very little net-working going on between teachers so as to establish best practises for teaching entrepreneurship. This is seen as a major hindrance in trying to disseminate new ideas in teaching entrepreneurship.

7.2 Further Research Recommendations

There needs to be more research done on practical exercises that are taking place in the classroom. This can be extended to university level as well where lectures can pool resources together and can come up with different models that have been empirically tested. More quantitative research needs to be done to determine whether the concepts presented in this paper do actually increase the number of entrepreneurs. At this point all that has been presented is a concept to increase the number of entrepreneurs. There is no doubt that the situation in South Africa is very serious and a lot more needs to be done to address the problem.

7.3 Conclusion

This research report set out to find out to answer four questions:

1. Are there 'institutional constraints' that prevent the teacher from using all forms of teaching available when teaching entrepreneurship?

Yes there are institutional constraints that hinder teachers in trying to teach entrepreneurship.

2. Are there differences in how entrepreneurship is taught across the income spectrum?

Yes there are significant difference in how entrepreneurship across the income spectrum with access to resources being the major differentiator. Access to resources is a major problem in the traditional model of teaching entrepreneurship.

3. Are there practical exercises that are being done in one school that can be replicated across the entire school system that will enhance the practical side of entrepreneurship?

The discovery of 'R10 in ten days' that is being implemented in one school can be transferred to every school. This was a major discovery for the researcher.

4. Are there informal structures that allow teachers to share information about teaching entrepreneurship?

There seems to be very little sharing of information between teachers. There seems to be very little evidence both formally and informally supporting the cross pollination of ideas.

There is clearly a gap in the education system when it comes to teaching entrepreneurship and there is a great need for further research on the topic.

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