Entrepreneurship competence of Economic Management Science teachers in the Kenneth Kaunda District

by

Zelma Pistorius
10421106

Mini-dissertation submitted in partial fulfilment of the requirements for the degree Master in Business Administration at the North-West University, Potchefstroom Campus

Supervisor: Prof. TE Du Plessis

November 2011
ABSTRACT

The disproportionately high unemployment figures for the youth highlight the importance of finding alternative ways of increasing youth participation in the economy. According to the Western Cape Youth Report there are four major factors that have been identified as having a significant influence on the entrepreneurial environment in South Africa, especially as this relates to the youth, namely education and training; social and cultural norms; access to finance and the regulatory environment.

Recent data compilations show that many poor and non-poor people in many developing countries face a high degree of financial exclusion and high barrier in access to finance. Although access to finance is a perennial problem for all small businesses, the youth are particularly vulnerable to this limitation. Many extremely poor households operate their own businesses, but do so without ample means.

A particularly pernicious problem is that the school system is not producing functionally literate students. For many years financial literacy has been neglected. There was also general agreement that people should be equipped with social skills, but financial literacy was not necessarily included as one of these skills. Many school-leavers do not have sufficient literacy, numeracy and livelihood skills to be able to participate actively in the economy. Pilot initiatives revealed that students often enter university with little knowledge of how to work out a weekly budget or manage money. Many of them in receipt of bursaries and other financial support soon run out of money and lead a hand-to-mouth existence.

A comprehensive and well co-ordinated approach to youth entrepreneurship is needed to increase the chances of success for start-ups as well as the chances of existing businesses to progressing from “micro” to fully-fledged small and medium-sized entities.
The main objective was to research the entrepreneurship competencies, skills and knowledge of the EMS teacher who will be instrumental in promoting entrepreneurship under the youth of the country. To meet the research objectives a **qualitative approach** was selected and a questionnaire was used as the survey instrument. A new questionnaire was developed to assess respondents’ perceptions of the importance of entrepreneurial knowledge, skills and training in teaching EMS. The responses received were analysed and assessed and the findings are embodied in the recommendations and proposals of this dissertation.

This study is of interest to policy makers, educational institutions and schools as well as to the Department of Education. The results of the study are intended to encourage the Department of Education to make a serious effort to promote entrepreneurship competence, knowledge and skills of primary school teachers.

**Key terms:** Entrepreneurship; unemployment; entrepreneurship education; teacher training; poverty; entrepreneurial awareness; entrepreneurial skills.
ACKNOWLEDGEMENTS

1. First and foremost I would like to give praise and glory to my Heavenly Father for grace beyond measure.

2. A big thank you to Prof. Tommy du Plessis, for his patience, support and guidance.

3. Dr. Suria Ellis and Mrs Erika Fourie for all the help with the research and statistical analysis.

4. Mr. Ezekiel Xhalabile, EMS Subject Specialist, AO Potchefstroom, Department of Education for his assistance.

5. To my parents Jan and Encasn Strauss, for providing a safe haven, a quiet place to study and moral support.

6. To my husband Deon for his heaps of patience and encouragement.

7. To my daughters Encasn and Geadré Schuld, for their unconditional love, loyal support and prayers.

8. All my friends for believing in me. I appreciate you.
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABSTRACT</td>
<td>ii</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>vii</td>
</tr>
<tr>
<td>LIST OF APPENDICES</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF KEY TERMS</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF ABBREVIATIONS</td>
<td>viii</td>
</tr>
<tr>
<td>CHAPTER ONE: INTRODUCTION AND PROBLEM STATEMENT</td>
<td>1</td>
</tr>
<tr>
<td>1.1 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.2 BACKGROUND TO THE STUDY (MOTIVATION)</td>
<td>2</td>
</tr>
<tr>
<td>1.3 PROBLEM STATEMENT</td>
<td>4</td>
</tr>
<tr>
<td>1.4 RESEARCH OBJECTIVES OF THE STUDY</td>
<td>6</td>
</tr>
<tr>
<td>1.4.1 Primary objective</td>
<td>6</td>
</tr>
<tr>
<td>1.4.2 Secondary objectives</td>
<td>6</td>
</tr>
<tr>
<td>1.5 SCOPE OF THE STUDY</td>
<td>6</td>
</tr>
<tr>
<td>1.6 RESEARCH METHODOLOGY</td>
<td>7</td>
</tr>
<tr>
<td>1.6.1 Literature/theoretical study</td>
<td>7</td>
</tr>
<tr>
<td>1.6.2 Empirical study</td>
<td>7</td>
</tr>
<tr>
<td>1.7 LIMITATIONS OF THE STUDY</td>
<td>7</td>
</tr>
<tr>
<td>1.8 LAYOUT OF THE STUDY</td>
<td>7</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>9</td>
</tr>
</tbody>
</table>
# CHAPTER TWO: ECONOMIC MANAGEMENT SCIENCE
## TEACHERS ENTREPRENEURIAL COMPETENCIES

### ABSTRACT

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1 INTRODUCTION</td>
<td>13</td>
</tr>
<tr>
<td>2.2 LITERATURE REVIEW</td>
<td>14</td>
</tr>
<tr>
<td>2.2.1 Introduction</td>
<td>14</td>
</tr>
<tr>
<td>2.2.2 Entrepreneurship defined</td>
<td>16</td>
</tr>
<tr>
<td>2.2.3 Can entrepreneurship be taught?</td>
<td>17</td>
</tr>
<tr>
<td>2.2.3.1 Skills</td>
<td>18</td>
</tr>
<tr>
<td>2.2.3.2 Awareness</td>
<td>18</td>
</tr>
<tr>
<td>2.2.4 Teaching entrepreneurship or teaching about it?</td>
<td>19</td>
</tr>
<tr>
<td>2.2.5 Educational theories</td>
<td>21</td>
</tr>
<tr>
<td>2.2.5.1 Educational theories</td>
<td>22</td>
</tr>
<tr>
<td>2.2.5.2 Educational program</td>
<td>22</td>
</tr>
<tr>
<td>2.2.6 Training of teachers</td>
<td>24</td>
</tr>
<tr>
<td>2.2.7 Entrepreneurship syllabus</td>
<td>26</td>
</tr>
<tr>
<td>2.2.8 Method of teaching</td>
<td>31</td>
</tr>
<tr>
<td>2.3 RESEARCH METHODOLOGY</td>
<td>34</td>
</tr>
<tr>
<td>2.3.1 The procedure and scope of the qualitative research</td>
<td>35</td>
</tr>
<tr>
<td>2.3.2 Sample group and size</td>
<td>35</td>
</tr>
<tr>
<td>2.3.3 The survey instrument</td>
<td>36</td>
</tr>
<tr>
<td>2.3.4 Data collection</td>
<td>37</td>
</tr>
<tr>
<td>2.4 RESEARCH FINDINGS</td>
<td>38</td>
</tr>
<tr>
<td>2.4.1 Biographical information</td>
<td>38</td>
</tr>
<tr>
<td>2.4.1.1 Personal information of the EMS teacher</td>
<td>39</td>
</tr>
<tr>
<td>2.4.1.2 Experience of the EMS teacher</td>
<td>42</td>
</tr>
<tr>
<td>2.4.1.3 Practical experience in entrepreneurship</td>
<td>48</td>
</tr>
<tr>
<td>2.4.2 Entrepreneurial behaviour by and perceptions of the EMS teacher</td>
<td>49</td>
</tr>
<tr>
<td>2.4.2.1 The perception of teachers</td>
<td>50</td>
</tr>
<tr>
<td>2.4.2.2 The opinion of teachers</td>
<td>50</td>
</tr>
</tbody>
</table>
2.4.2.3  Skills needed by the learner  51
2.4.2.4  Awareness  52
2.4.2.5  Teaching entrepreneurship or teaching about it  52
2.4.2.6  Educational theories  53
2.4.2.7  Training received by the teachers  53
2.4.2.8  The entrepreneurship syllabus  53
2.4.2.9  Methods of teaching used by the teacher  53
2.4.2.10  EMS and CAPS  54
2.4.2.11  Practice versus Theory  54
2.4.2.12  Entrepreneurial days  55
2.4.2.13  The school syllabus  56
2.4.3   Reliability  56
  2.4.3.1  Cronbach alpha coefficient  57
  2.4.3.2  Mann-Whitney test  59
2.4.4   Assessment of the sections measured in the study  62
  2.4.4.1  Margin of error  62
  2.4.4.2  Arithmetic mean and standard deviation  62
2.4.5   Conclusion on reliability  64
REFERENCES  65

CHAPTER THREE: CONCLUSION, LIMITATIONS AND RECOMMENDATIONS  71

3.1   INTRODUCTION  71
3.2   CONCLUSION  71
3.3   LIMITATIONS  72
3.4   RECOMMENDATIONS  72
REFERENCES  74

APPENDIX A: QUESTIONNAIRE  75
LIST OF TABLES

Table 1: A summary of experts’ responses to key factors constraining entrepreneurial activity and recommendations made by them 14
Table 2: Influence of entrepreneurship education and training on entrepreneurial perceptions and aspirations 20
Table 3: Weighting of the CAPS 29
Table 4: Cronbach alpha coefficient 58
Table 5: Mann-Whitney test on age groups 60
Table 6: Mann-Whitney test on primary and high school teachers 61
Table 7: Arithmetic mean and standard deviation of sections 63

LIST OF FIGURES

Figure 1: Job experience, training and education 27
Figure 2: Gender of the teacher 39
Figure 3: Ages of teachers 40
Figure 4: Years of teacher training 41
Figure 5: Type of qualification 42
Figure 6: Phase of training 43
Figure 7: Years of training in EMS 44
Figure 8: Experience in teaching EMS 45
Figure 9: Current phase of teaching 46
Figure 10: Teaching vs. Training 47
Figure 11: Reasons for teaching EMS 48
Figure 12: Practical experience of entrepreneurship 49
Figure 13: Teachers’ opinion on entrepreneurship 51
Figure 14: Importance of guest speakers 52
Figure 15: EMS vs. CAPS 54
Figure 16: Practice vs. Theory 55
Figure 16: School syllabus on entrepreneurship 56
### LIST OF KEY TERMS

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FET phase</td>
<td>Grade 10 to grade 12</td>
</tr>
<tr>
<td>Foundation phase</td>
<td>Grade R to 3</td>
</tr>
<tr>
<td>High school</td>
<td>Grade 8 to grade 12</td>
</tr>
<tr>
<td>Intermediary phase</td>
<td>Grade 4 to 6</td>
</tr>
<tr>
<td>Middle school</td>
<td>Grade 7 to grade 9</td>
</tr>
<tr>
<td>Primary school</td>
<td>Grade 1 to grade 7</td>
</tr>
<tr>
<td>Senior phase</td>
<td>Grade 7 to grade 9</td>
</tr>
</tbody>
</table>

### LIST OF ABBREVIATIONS

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAPS</td>
<td>Curriculum Assessment Policy Statement</td>
</tr>
<tr>
<td>CPD</td>
<td>Continuing Professional Development</td>
</tr>
<tr>
<td>DOE</td>
<td>Department of Education</td>
</tr>
<tr>
<td>EMS</td>
<td>Economic Management Sciences</td>
</tr>
<tr>
<td>FET</td>
<td>Further Education and Training</td>
</tr>
<tr>
<td>GEM</td>
<td>Global Entrepreneurship Monitor</td>
</tr>
<tr>
<td>GET</td>
<td>General Education and Training</td>
</tr>
<tr>
<td>NCS</td>
<td>National Curriculum Statement</td>
</tr>
<tr>
<td>OBE</td>
<td>Outcome Based Education</td>
</tr>
<tr>
<td>PEDs</td>
<td>Provincial Education Departments</td>
</tr>
<tr>
<td>RNCS</td>
<td>Revised National Curriculum Statement</td>
</tr>
</tbody>
</table>
CHAPTER ONE

INTRODUCTION AND PROBLEM STATEMENT

1.1 INTRODUCTION

Entrepreneurship is considered to be an important mechanism for economic development through job creation, innovation and its welfare effect, which has led to a burgeoning policy interest in national-level entrepreneurial activity (Herrington & Kew, 2009:57).

South Africa has a mixed economy, with substantial government intervention and a number of state-owned enterprises existing jointly with a strong private sector (CIA: The world fact book, 2011:1). A chief characteristic of the private sector is the high concentration of ownership by a small group of integrated conglomerate structures (USA: Department of State, 1994:3).

South Africa also suffers from a relatively heavy overall regulatory burden compared to other developing or sub-Saharan African countries. State ownership and interference, in both barriers of entry in many areas and restrictive labour regulations have contributed significantly to the unemployment malaise (Herrington, Kew & Kew, 2010:43). High unemployment (Bhorat, 2006:35), rigid labour laws, low skill levels, crime, and corruption hamper economic progress (CIA: The world fact book, 2011:1).

Those that do attempt to engage in business activities lack managerial, technical and marketing skills, as well as experience, and are therefore at a disadvantage in a competitive and changing business environment (World Review of Science, 2005:1). Several studies (Levie & Autio, 2008:235-236) have demonstrated links between the provision of entrepreneurship education and levels of entrepreneurial activity.

Entrepreneurs create jobs. No longer are the traditional providers namely the large enterprises and government the main creator of jobs, but it has been replaced by the small business (Nickels, McHugh & McHugh, 2010:146).
Entrepreneurship is one of the priorities for the South African government; not only will it help South Africa develop but entrepreneurship will also sustain the development needed in the long term. Entrepreneurship is key to the growth and survival of firms in a volatile environment, because entrepreneurial judgement is necessary for success in making complex decisions under uncertainty (Casson, 2005:1).

By increasing entrepreneurship education, stronger business communities will evolve. Many entrepreneurs come from entrepreneurial and small business families. Young people who have no background in entrepreneurship and small businesses have few models. Helping these young people become aware of and pursuing being in business as a career option is an important way to assist individuals develop themselves and the economies of their communities (Liang & Dunn, 2002:208-210).

1.2 BACKGROUND TO THE STUDY

In Correira, Flynn, Uliana & Wormald (2003:1-6) economic policies are defined as the considered decisions made by the ruling government of the day, on how to make best use of the country’s scarce resources — flow from and reflect such ideologies. The environment in which economic activities takes place therefore depends upon the people who inhabit the country, the resources available in the country, and the systems designed to promote economic activity.

While it is the combination of all business — small, medium and micro-enterprises (SMMEs) and large international business — that determines the state of the economy, it is the high-potential entrepreneurs who are focused on growing their businesses who will be responsible for the growth and employment creation in the economy. An economic growth of 12% per year is needed to achieve an employment rate of 3% (Du Toit, Erasmus & Strydom, 2010:44).

The income of the average South African household has decreased considerably between 1995 and 2000. Affirmative action policies such as Black Economic Empowerment have seen a rise in black economic wealth (Black Economic Empowerment, 2011) and an emerging black middle class (Van Aardt, 2011:6).
There is a high rate of poverty and a relatively low GDP per capita. Real economic growth in the GDP fell from 1.1% in 1991 to about 0.5% in 1998. It stood at 2.6% in 2001. Still, analysts estimate that the economy must grow at between 5 and 10% if South Africa is going to overcome unemployment rates estimated at 37% (CIA: The world fact book, 2011:1).

One of the main contributors to the high unemployment rate is the labour law in the country (Herrington et al., 2010:62). The freer the labour market is from government intervention, the lower the unemployment rate is.

Worldwide, countries are debating ways and means of addressing the problems of unemployment. Employment is closely linked to the growth of the economy. Where there is no growth, fewer employment opportunities are available (Du Toit et al., 2010:44). Currently, the informal economy created about 18% of jobs as compared to 85% in Ghana and almost 80% in Tanzania. This shows that if utilized properly, the informal economy can reduce the high unemployment levels (Guliwe, 2002:14).

A sound basic education system is one of the fundamental requirements for a competitive country. South Africa’s ranking with respect to primary education is dismal — in the 2010/2011 Global Competitiveness Report (GCR), South Africa continues to languish at the bottom end of the scale (Schwab, 2011/2012:19). This is of particular concern as South Africa currently spends significantly more on education than many other African countries and in the 2011 budget R189.5bn has been allocated to education (Herrington et al., 2010:31).

Entrepreneurship could be seen as the solution to the unemployment problem in South Africa. By creating entrepreneurial minds and encouraging entrepreneurship, people are taught to be self-sufficient and need not look to the government for social grants and job creation. Most of the people prefer to be employed rather than self-employed because they perceive the latter option as very risky. This is a major barrier to encouraging self-employment as a means of reducing joblessness among the people. Bold strategic interventions are required at national and local levels of government so that it could make a difference on this scale.

Involvement in schools and education should be one of the priorities of the government. The government was so serious about entrepreneurship that the whole schooling system was changed to an Outcome Based Education (OBE) system, where entrepreneurship played a major role. The
action plans were put in place and OBE was phased in during the early 2000s. If you look at the School Curriculum (NCS), the ideas and initiatives are there, but the lack of execution poses a major problem and causes great concern to the leadership of South Africa. There are so many areas to address from a lack of knowledge to a lack of basic skills that the task is daunting.

1.3 PROBLEM STATEMENT

Young people, particularly, need to be encouraged to see entrepreneurship as a potential career option. Most have been conditioned towards seeking more traditional wage employment, as opposed to creating their own opportunities. This is evidenced in that most school leavers are equipped with curriculum vitae as opposed to a business plan. A factor that could significantly influence this trend is exposure to entrepreneurial role models which the youth can relate to. This will give them a realistic view of what the entrepreneurial journey is like. It has also been suggested that entrepreneurship is incorporated within the senior school curriculum and extra-mural activities (Maas, Overmeyer, Maas & Kew, 2008:63).

The strongly negative rating of the quality of entrepreneurship education at school level is also a clear indication that the education system in South Africa is failing to prepare learners adequately for meaningful participation in the economy. Although entrepreneurship is meant to form part of the secondary school curriculum, it is taught neither widely nor effectively enough – a situation which must be addressed as a matter of urgency (Herrington, Kew & Kew, 2008:32).

However, the South African experts emphasised that the problem in South Africa is not isolated only by the quality of entrepreneurship education and training, but there is a broader problem of primary and secondary education in its entirety, with one expert recommending that the South African government should “declare the education crisis a national emergency: overhaul the education system, revitalize teaching as a noble, well-paid profession, reintroduce properly trained school inspectors, import teaching skills and pilot charter schools”. A further comment from the experts noted that “SA’s dysfunctional school system produces entrepreneurs who are ill-prepared for the business world and workers who are so ill-prepared for the world of work that many are virtually untrainable by the time they leave school (Herrington et al., 2010:29).
This echoes the sentiments of the 2010/11 Global Competitiveness Report which indicates that “basic education increases the efficiency of each individual worker. Moreover, workers who have received little formal education can carry out only simple manual work and find it much more difficult to adapt to more advanced production processes and techniques. Lack of basic education can therefore become a constraint on business development” (Schwab, 2011/2012:5).

1.4 RESEARCH OBJECTIVES OF THE STUDY

1.4.1 Primary objective

Bloch (2006) identifies several areas that impact on the quality of education being offered in many South African schools. These include teacher support, curriculum complexity, mismanagement and skills deficiency. Many of these issues focus on the role of teachers within the education system. As teachers are one of the key stakeholders, it is important to review their impact on quality education (Maas et al., 2008:90).

The aim of this study is to investigate the level of knowledge, skills and training of EMS teachers in the Kenneth Kaunda District. Emphasis will be placed particularly on entrepreneurship training/knowledge and practical hands-on experience of entrepreneurship of the teacher as facilitator.

1.4.2 Secondary objectives

To identify training needs to ensure that the teacher has proper training in the specific specialist subject, EMS contains a high level of common sense, but specialized knowledge is needed, especially with the proposed changes in the syllabi of the GET and FET Phase as required by the proposed changes in the CAPS.

1.5 SCOPE OF THE STUDY

This study will be limited to verifying the competence level of entrepreneurship training, skills and knowledge of primary school teachers teaching the subject Economic and Management Sciences in the Kenneth Kaunda District
1.6 RESEARCH METHODOLOGY

1.6.1 Literature/theoretical study (content and sources of references)
A lot of emphasis will be placed on the proposed changes to the teaching curriculum by the Department of Education that is currently being implemented.

1.6.2 Empirical study (questionnaire design, study population, gathering of data, statistical analysis).

The data collected will be from teachers currently teaching entrepreneurship and the schools’ way of dealing with a subject that need specialized knowledge, skills and training but it lacks the money to employ a full-time EMS specialist.

1.7 LIMITATIONS OF THE STUDY

This study will be limited to primary teachers currently teaching EMS in the Kenneth Kaunda District (Potchefstroom) and how they are going to deal with the proposed changes to the curriculum (DOE, 2010).

1.8 LAYOUT OF THE STUDY

The structure for this dissertation is as follows:

Chapter one:
This chapter provides the background to the study, the problem statement, and the research objectives of the study and the scope of this study. This chapter also provides an overview of the research methodology that was used to determine the competence levels of EMS teachers in the primary schools of the Kenneth Kaunda District in the Northwest Province. The chapter concludes with a brief overview of the remaining chapters of the dissertation.
Chapter two:
Chapter two is in the format of an article. The literature review will investigate previous research pertaining to entrepreneurship and a brief overview of entrepreneurship. The government policies pertaining to entrepreneurship education in the senior phase, especially in primary schools is examined in detail. The challenges that government policies set for primary school teachers are examined. The chapter concludes by presenting the findings of the empirical study followed by recommendations.

Chapter three:
This chapter will review the primary and secondary objectives of the study and the conclusions reached are discussed. Study limitations will be stated and recommendations for future research will be reached.
REFERENCES


US See UNITED STATES

ABSTRACT

South Africa is a middle-income, emerging market with an abundant supply of natural resources; well-developed financial, legal, communications, energy, and transport sectors; a stock exchange that is 17th largest in the world; and modern infrastructure supporting an efficient distribution of goods to major urban centres throughout the region (Olive Leaf Foundation, 2008:1).

Growth has been robust since 2004, as South Africa has reaped the benefits of macroeconomic stability and a global commodities boom. The South African rand (ZAR) is the world's most actively-traded emerging market currency. South Africa's GDP (PPP) as at the end of 2007 was $467, 95 billion ranking the country 20th in the world (CIA, 2011:1).

The country suffers from large income gaps and a dual economy marking it as a developing country. South Africa has one of the highest rates of income inequality in the world, reflected in per capita GDP of US$10 600 ranking it only 76th in the world. Unemployment remains high and daunting economic problems remain from the previous dispensation - especially poverty, lack of economic empowerment among the disadvantaged groups, and a shortage of public transportation. South Africa's former economic policy was fiscally conservative, focusing on controlling inflation and attaining a budget surplus (CIA: The world fact book, 2011:1).

The *GEM Executive Report 2008* notes that entrepreneurial perceptions and attitudes can have a significant effect on entrepreneurial activity within a country. Entrepreneurial education and training is one factor that can have a significant impact on entrepreneurial attitudes and aspirations (Herrington et al., 2008:33).
2.1 INTRODUCTION

There are many good reasons to promote entrepreneurship among young people. While caution should be exercised so that entrepreneurship is not seen as a ‘mass’ or wide-ranging solution which can cure all society’s economic ills, as Curtain (2000:29) warns, it has a number of potential benefits. An obvious, and perhaps significant one, is that it creates employment for the young person who owns the business (Chigunta, 2002:2).

Africa is a continent where young people make a significant part of the population. Because of these large and growing numbers of youth, jobs, health and social services will need to be increased to meet increased demand (Mkandawire, 1996:1). The country’s youth, more often than not, lack the experience, skills and education necessary to access employment in the formal sectors. These young people are forced to create their own opportunities and to attempt to provide their own form of employment (Herrington & Kew, 2009:13).

Entrepreneurship is a scarce resource as the Global Entrepreneurship Monitor (GEM) survey clearly shows (Kelley et al., 2011:23). In the 2008 GEM survey South Africa ranked 23rd out of 43 countries, with a TEA of 7.8%, which is lower than the average for middle to lower income countries. This report confirmed that we do not have enough entrepreneurial activities. A country at the stage of development that South Africa presently have must have a TEA in the region of 13%, almost double that which we currently have (Herrington et al., 2008:48).

Entrepreneurship and unemployment are inversely related. Audretsch and Thurik (2000) (in Audretsch, Carree & Thurik, 2001:1) show that an increase in the number of business owners and entrepreneurs reduces the level of unemployment.

There is considerable consensus among the experts about the key factors constraining entrepreneurial activity as well as the main areas where interventions should be focused as indicated by Table 1.

Table 1: A summary of experts’ responses to key factors constraining entrepreneurial activity and recommendations made by them

<table>
<thead>
<tr>
<th>Category</th>
<th>% of experts citing this factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factors constraining entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>Financial support</td>
<td>65</td>
</tr>
<tr>
<td>Education and training</td>
<td>62</td>
</tr>
</tbody>
</table>


2.2 LITERATURE REVIEW

This literature study reviews previous research pertaining to entrepreneurship and a brief overview of entrepreneurship. The government policies pertaining to entrepreneurship education in the senior phase, especially in primary schools is examined in detail. The challenges that government policies set for primary school teachers are examined.

2.2.1 Introduction

GEM research shows a relationship between education and entrepreneurial activity within an economy. The importance of education in improving the competitiveness of an economy has also been highlighted in the Global Competitiveness Report (Herrington et al., 2010:45).

To be able to understand how the business organisation satisfies the needs and the wants of people in the economy, the need exists to understand the driving force behind the business, in other words the entrepreneur.

In developed countries, the entrepreneur is recognized as a key factor in the process of economic development. Entrepreneurs innovate, take risks and employ people. They create markets and serve consumers by combining materials, processes and products in new ways. They initiate change, create wealth and develop new enterprises. More specifically, the strategic role of small business in any economy revolves around the production of goods and services, innovation, the aiding of big business and job creation (Du Toit et al., 2010:53).

Entrepreneurship and self-employment help:

- create jobs
develop skills
give unemployed and disadvantaged people an opportunity to fully participate in society and the economy.

In reviewing the empirical evidence relating to unemployment rates to new-firm start-up activity, Storey (1991:177) concludes that, “The broad consensus is that time series analyses point to unemployment being, ceteris paribus, positively associated with indices of new-firm formation, whereas cross sectional, or pooled cross sectional studies appear to indicate the reverse. Attempts to reconcile these differences have not been wholly successful.”

A low rate of entrepreneurship may also be a consequence of the low economic growth levels, which also reflect higher levels of unemployment (Audretsch et al., 2001). Entrepreneurial opportunities are not just the result of the push effect of (the threat of) unemployment but also of the pull effect produced by a thriving economy as well as by entrepreneurial activities in the past. Thus, while there are not just theoretical reasons, but also empirical support as well, that while unemployment leads to increased entrepreneurial activity, entrepreneurship leads to reduced unemployment (Audretsch et al., 2001:2). The GEM Executive Report 2008 notes that entrepreneurial perceptions and attitudes can have a significant effect on entrepreneurial activity within a country. According to the authors, countries with primarily efficiency-driven economies (such as South Africa) should begin to pay attention to creating positive attitudes towards entrepreneurship in order to develop their economies to the next phase (Herrington et al., 2008:33).

2.2.2 Entrepreneurship defined

The origin of the word “entrepreneur” is an important indicator of the process. It derives from the French words entre meaning “between” and prendre being the verb “to take”. This would imply that it was another name for merchants who act as a go-between for parties in the trading process.....  The French verb entreprendre means to “undertake”, as when undertaking a venture, but it can also be used in relating to starting a new venture, and this is central to the use of the word “entrepreneur " in English (Bolton & Thompson, 2000:4).

An entrepreneur is someone who starts a business with the intention of making a profit and assumes the risk of losing all his/her resources if the venture fails (Du Toit et al., 2010:41).
Entrepreneurs are those individuals who discover market needs and launch new firms to meet those needs. They are risk takers who provide an impetus for change, innovation, and progress in economic life (Longenecker et al., 2003:8). Entrepreneurship is the process by which individuals pursue opportunities without regard to resources they currently control (Du Toit et al., 2010:42).

Using an empirical approach to the question of what entrepreneurship is, Gartner found the following eight themes to emerge when professional users (academic and others) of the entrepreneurial concept were asked about its inherent meaning (Gartner, 1990):

- The entrepreneur; innovation; organisation creation; creating value; profit or non-profit; growth; uniqueness; the owner-manager.

An entrepreneur, therefore, is the person involved in creating a unique product by creating value and growth.

### 2.2.3 Can entrepreneurship be taught?

According to Parker (2009) entrepreneurship is an integral part of economic change and growth. Yet entrepreneurship has only recently come to be regarded as a field of study. A complete view of it recognizes its multi-disciplinary academic underpinnings, drawing from economics, finance, business studies, psychology and other subjects. This heterogeneous provenance reflects the multi-dimensional nature of entrepreneurship, which partly contributes to the elusiveness of the entrepreneur.

Entrepreneurship education should be part of economics education instruction as Greene & Rice (2007:157) state that the child must be exposed to economics concepts that form a cognitive domain in which entrepreneurs and entrepreneurship can be developed. It is in the economic environment that the entrepreneur has relevance.

It is important that schools and adult basic education equip young people for the world of work and the world of finance that they will need to enter, either as employees or employers (Maas et al., 2008:164).
Acs and Amores (2008:309) state, “Economists have come to recognize the input-completing and gap-filling capacities of potential entrepreneurial innovation and growth and the significant contribution of innovation and growth to prosperity and economic welfare”.

If we accept the need to increase entrepreneurial activities within our economy as an entrepreneurial objective through the use of curriculum materials that discover and develop entrepreneurial attributes, thereby increasing the pool of entrepreneurial talent, we must build a framework in which these curriculums reside (Kent, 1990:157).

The recognition of the importance of the entrepreneur and the necessity of the markets in which the entrepreneur operates has led many countries to work on perfecting their markets by eliminating barriers to entrepreneurship and other market failures (Acs & Amores, 2008:309).

The government should intervene indirectly to improve the enabling environment for entrepreneurship and foster an entrepreneurship culture. Such interventions, referred to by Levie and Autio (2008) as framework conditions, could include:

- Education, which can provide a pool of skilled labour, develop entrepreneurial skills in students, and encourage knowledge exchange by building networks and fostering a collaborative economy.
- Access to entrepreneurial finance.
- Government sponsored entrepreneurship programmes.
- Political conditions (e.g., government administrative and regulatory regimes).
- Access to and transfer of Research and Development as well as technology (Lenihan, 2011:329).

Education for entrepreneurship has two broad dimensions namely awareness and skills. Awareness and skills can both be taught. Through awareness the sub-conscious is stimulated to focus on the element of entrepreneurship that exists around you. Skills are specially focused tasks that the learners can be taught to perform (Kent, 1990:187).

2.2.3.1 Skills

Skills are knowledge to do some activities or tasks. Skills are the one avenue that can be taught. Entrepreneurs can be taught the technical skills in their field of entrepreneurial activity as well as
the managerial skills that will enable an entrepreneur to manage his or her business successfully (Kent, 1990:188).

The other skills an entrepreneur must possess are more introspective. They must learn inner control and be mature enough to take responsibility for their own actions (Nickels et al., 2008:148). Failures must not be blamed on others, but must be used as a learning curve to be more successful the next time round. We as teachers and parents must teach our children to take responsibility for their actions from a young age. They must learn that every decision and action leads to a certain outcome of which they only have themselves to blame or to praise. This can be taught step by step when growing up and according to age you can allocate responsibility (Kent, 1990:189).

Teachers should have the ability to teach learners the techniques essential for entrepreneurship. They cannot create successful entrepreneurs by teaching only. They can only provide the techniques necessary for using the innate talent and taught temperament to succeed as entrepreneurs.

2.2.3.2 Awareness

Awareness concerns the learner becoming aware of the past, present and future roles that entrepreneurs play in the growth and development of the economy. By focussing on the likes of Koos Bekker (MNet); Anton Rupert (Rembrandt); Raymond Ackerman (Pick n Pay); Patrice Motsepe (Armgold); Mark Shuttleworth (Thawte); Herman Mashaba (Black like me) and Cyril Ramaphosa (Shanduka) (Bagshawe, 1995) the learners can identify with people from their own community and people they see as heroes.

Everyone would benefit from studying positive role models; learning about the value of self-confidence, a positive attitude, perseverance, innovativeness, willingness to take risks, personal control and other entrepreneurial personality traits (Kent, 1990:188).

The second awareness level is the possibility of entrepreneurship as a career choice. It is a rare school where the vocational teacher has any idea about how to present entrepreneurship as a possible career option (Kent, 1990:188).
2.2.4 Teaching entrepreneurship or teaching about it

The single most important contribution education can do to a child’s development is to help him/her towards a field where his/her talents best suit him/her and where he/she will be satisfied and competent. We should spend less time ranking children and more time to help them identify their natural gifts, talents and competencies and cultivate those (Bolton & Thompson, 2000:42). The greater the talent possessed, the quicker the learning process is completed.

Entrepreneurial education and training is one factor that can have a significant impact on entrepreneurial attitudes and aspirations. The table below highlights the links between training and entrepreneurial attitudes, aspirations and activity for the respondents in a South African adult population survey.

Table 2: Influence of entrepreneurship education and training on entrepreneurial perceptions and aspirations

<table>
<thead>
<tr>
<th>Perception</th>
<th>Voluntary training</th>
<th>Compulsory training</th>
<th>No training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perceive good opportunities in the local area in the next 6 months</td>
<td>57.7</td>
<td>50.0</td>
<td>31.3</td>
</tr>
<tr>
<td>Have skills, knowledge and experience to start a business</td>
<td>81.0</td>
<td>60.0</td>
<td>25.9</td>
</tr>
<tr>
<td>Expect to start a business in the next 3 years</td>
<td>43.5</td>
<td>29.5</td>
<td>13.3</td>
</tr>
<tr>
<td>Actively trying to start or running a new business</td>
<td>22.6</td>
<td>17.8</td>
<td>5.6</td>
</tr>
</tbody>
</table>

Source: (Herrington et al., 2008: 33)

One of the biggest challenges facing teachers today is the finding, nurturing and developing of talent. Our education methods and our culture are the main obstacles (Bolton & Thompson, 2000:43). Teachers are so busy surviving and getting through the syllabus that they forget to find and nurture the talent of the learners in their classes. Talent then stays dormant and is never or rarely ever developed. Within a classroom there is an amazing mix of talent, but we as teachers fail to harness it, because we fail to recognise it (Bolton & Thompson, 2000:43). Offering training to everyone and forcing entrepreneurship upon the unwilling, is detrimental to the success of entrepreneurs (Bolton & Thompson, 2000:43). The few entrepreneurs that want to proceed are so demoralised by the negativity of the rest of the group and the incompetence of the
teacher or trainer that they tend to ignore their natural ability and refuse to pursue a career in anything that sounds entrepreneurial.

The government is trying through education policies and Seta’s to foster a love for entrepreneurship and to introduce learners to the benefits of entrepreneurship (DOE, 2010).

Teachers have to identify the people with the right talent and temperament and focus all their energy on them (Bolton & Thompson, 2000:44). We cannot all be an Ussain Bolt (the 100 metre world record athlete), the same way we cannot all be successful entrepreneurs.

### 2.2.5 Educational theories

Sexton and Smilor (1997:377) define entrepreneurship education as a formal structured instruction that conveys entrepreneurial knowledge and develops in students, focused awareness relating to opportunity, recognition and the creation of new ventures.

Currently, there is also no agreement on what would constitute a suitable conceptual model for the analysis of effects of entrepreneurship education. Most studies measure the impact of entrepreneurship education merely by searching for uniform course-induced changes in entrepreneurial intentions.

This approach may mask important sorting effects which can be socially positive even if entrepreneurial intentions decline as a consequence of entrepreneurship training (Von Graevenitza et al., 2010).

#### 2.2.5.1 Educational theories

Learners must not only have a strong knowledge on the theory of entrepreneurship, but the theory must be accompanied by doing. There must be collaboration between the school and the communities in which it functions. The two main goals are to strengthen and increase social capital by forming strong social networks and to increase the ability and the capital of the community to utilise social capital.
2.2.5.2 Educational program

The credibility and performance of most entrepreneurship education programs are undermined by lack of reality-based, systematic assessment. Credibility is undermined by limited evidence of impact: only sporadic, anecdotal evidence is available concerning program value to students and the community. The efficacy of entrepreneurship education programs suffers from a lack of validated predictor scales that measure possible entrepreneurial success and a lack of criterion reference testing that measures learning needs based on validated success criterion (Ames, Runco & Segrest, 2002:1).

In South Africa, entrepreneurial activity is hindered not only by a poor skills base but severe environmental limitations including poverty, a lack of active markets and poor access to resources are also present. According to the United Nations (OHCHR, 2004), a major contribution of a human rights approach to poverty reduction is the empowerment of poor people, expanding their freedom of choice and action to structure their own lives.

The goals for entrepreneurship education should be to help learners gain the knowledge, skills and values necessary to be economically aware and successful inhabitants of South Africa and to participate in economic activities. Entrepreneurship education, in its urgency to teach skills such as planning, runs the risk of not putting the business plan into proper perspective for the students.

With respect to the lack of entrepreneurship education and training in primary and secondary schools, one expert commented that “the current education system continues to favour rote academic learning and largely ignores the realities of the world of business”. It perpetuates the culture of entitlement and job-seeking. The system also encourages higher education as the sole pathway to professional advancement and success, and creates the implication that vocational expertise is distinctly inferior to academic knowledge (Herrington et al., 2010:29).

The effects emanating from entrepreneurship education are still poorly understood. Several previous studies find a positive impact of entrepreneurship education courses or programs at universities on perceived attractiveness and feasibility of new venture initiation or even on actual start-up activity (Fayolle et al., 2006). Other studies find evidence that the effects are negative.
Efforts must also be made to increase the university enrolment rate of only 15 percent, which places the country 99th overall, in order to better develop the country’s innovation potential (Schwab, 2011/2012:40).

Poorly conceptualised and implemented educational policies are regarded as a major failure on the part of government. The mismanagement of initiatives such as the SETAs as well as adult literacy campaigns are seen as entrenching rather than alleviating the legacy of apartheid policies’ impact on educational and skills levels in previously disadvantaged segments of the population.

The school system also came in for heavy criticism. The main outcome of outcome-based education has been to create a new lost generation of young people who are not simply unemployed, but unemployable. “Boosting self-esteem at the expense of, rather than in tandem with the development of a strong foundation of transferable skills is no preparation for the economic realities of the South African workplace.” (Herrington et al., 2008:33)

While there are clearly problems associated with preparing new educators to enter the profession, one of the major challenges facing government as it begins to change and update the present system, is to ensure that the teachers currently in the system are adequately prepared to deliver the new curriculum. In-service training has been notoriously poor and inadequate. Thulas Nxesi, General Secretary of SADTU, makes the point that one of the major issues is uneven capacity between provinces (Maas et al., 2008:90).

This is not just a matter of resources. IDASA Education Budget Reports indicate consistent under-spending by many provinces. Problems are also evident in the National Department of Education where lack of planning and co-ordination has led to constant delays and postponements with regard to curriculum change (Maas et al., 2008:90).

Teachers are barely competent academically, let alone entrepreneurially, so they are unable to inspire and support those who show flair and passion. Worst of all, the system discourages individualism (Herrington et al., 2010:29).

2.2.6 Training of teachers

The skills shortage in the country is seen by many in the business environment as a major factor hindering economic growth and business efficiency. In the *Global Competitiveness Report, 2008 –
2009, South Africa’s inadequately educated workforce is cited as the most problematic factor for doing business in the country (Herrington et al., 2008:31).

Not only must basic skills be taught, but higher level skills and analytic abilities will contribute towards enhancing entrepreneurial activities in new and existing ventures. It is important to link the theory with the practice. Conceptual and analytical academic knowledge are essential to the success in the entrepreneurial field. If the traits associated with the entrepreneurial spirit are important, then organisations and societies must find ways to encourage it (Greene & Rice, 2007:138).

A big question for teacher education in Africa is ‘Who is there to train the trainers?’ The Early Literacy Unit contributes to various training courses for multilingual education that covers the need and the ways to change teaching environments and approaches to early reading and writing, facilitate reading for enjoyment and development of multilingual materials (Bloch, 2006:20-21).

Quality higher education and training are crucial for economies that want to move up the value chain beyond simple production processes and products. In particular, today’s globalizing economy requires countries to nurture pools of well-educated workers who are able to adapt rapidly to their changing environment and the evolving needs of the production system (Schwab, 2011/2012:5).

Some enterprise promotion programmes for in-school youth seek to train teachers in entrepreneurship. In the USA, for instance, Educational Designs that Generate Excellence (EDGE) trains teachers almost exclusively. In Canada, CEED has developed more than 30 entrepreneurial programmes and projects targeted not only at youth, but also at educators and economic development professionals.

In South Africa, the YES programme offers a one year training course to teachers who in turn become facilitators (Chigunta, 2002). Initiatives have been introduced to promote entrepreneurship among high school students. These are Education with Enterprise Trust (EWET) which provides a structured learning programme for high school students and Junior Achievement South Africa. The latter has been a pioneer in non-racial education since its inception in 1979. The Junior Achievement initiative also exists in other countries, including the USA and Fiji. In Germany, Erziehung zu Eigeninitiative und Unternehmungsgeist (‘Education for Enterprise’) was established
in 1991 to help pupils become acquainted with social market economics through action-orientated teaching projects (Herrington et al., 2010:61).

In South Africa the participation rate is low by international standards and will not be sufficient to serve the economic growth rate aspirations by providing adequate individuals trained to a high level. Opportunities for post-school education and its efficiency in South Africa need to be improved considerably to assist the youth in enhancing their employability (Sheppard, 2009:31). The experience of prospective and practising teachers in the formal higher education system will be improved by developing teacher professional knowledge and practice standards. Support to teachers and access to professional development opportunities will be enhanced through the provision of facilities that will allow teachers to access teacher development opportunities near to where they work (Gazette, 2010). Most importantly, teachers will be helped to take responsibility for their own professional development.

The benefits of developing people as individuals (in addition of course to transferring capabilities necessary to pass exams and contribute to organisational activities) are huge. By developing people as individuals – rather than simply transferring arbitrary capabilities – we develop people's confidence, self-esteem, personal strengths, and crucially a rounded sense of purpose and fulfilment which fundamentally improve attitude, life-balance and emotional well-being. These immensely important outcomes are just as important for sustainable productive work and a healthy society as the essential skills and knowledge typically represented in conventional education and work-related training (Chapman, 2008-2010).

2.2.7 Entrepreneurship syllabus

The Europe 2020 strategy recognises entrepreneurship and self-employment as key for achieving smart, sustainable and inclusive growth, and several flagship initiatives address them:

- Agenda for new skills and jobs
- Youth on the Move – initiatives on education (my own emphasis) and employment
- European platform against poverty and social exclusion.

The South African education system has made considerable progress in expanding access to early childhood education (ECD) for 5 to 6 year-olds, for both males and females. South Africa has
almost reached the goal of universal access to primary education for both males and females, but still needs to ensure that the remaining 7 to-15-year-olds not attending school are also reached.

Kroon and De Klerk (2003:319) state that the challenge facing education and business in South Africa is to introduce more practical orientation and greater vocational relevance to entrepreneurial learning. In doing so, practical experience by means of an entrepreneurial learnership program, which is one of the key elements in the development of entrepreneurial people, will enhance the entrepreneurship development process.

This could provide wider economic benefits as opposed to narrow training towards starting a business. Even for those entering waged employment, entrepreneurial learning creates a mindset more able to cope with the changing world of work which is characterised by shorter, multiple careers and contracts as well as with the disappearance of rigid job responsibilities (Maas et al., 2008:65).

**Figure 1: Job experience, training and education**
The government is trying through education policies and Seta’s to foster a love for entrepreneurship and to introduce learners to the benefits of entrepreneurship (DOE, 2010:7).

The NCS was created for encouraging entrepreneurship, but the lack of training and skills as well as awareness on the side of the teacher led to the inability to foster entrepreneurial talent. The process of fostering entrepreneurial awareness and talents took a negative twist and learners are so tired of hearing about entrepreneurs that they automatically switch off if the topic is raised.

The National Curriculum Statement was based on the Constitution of the Republic of South Africa and is based on nine principles, namely

- Social transformation: ensuring that the educational imbalances of the past are redressed, and that equal educational opportunities are provided for all sections of the population;
- Active and critical learning: encouraging an active and critical approach to learning, rather than rote and uncritical learning of given truths;
- High knowledge and high skills: the minimum standards of knowledge and skills to be achieved at each grade are specified and set high, achievable standards in all subjects;
- Progression: content and context of each grade shows progression from simple to complex;
- Human rights, inclusivity, environmental and social justice: infusing the principles and practices of social and environmental justice and human rights as defined in the Constitution of the Republic of South Africa.
- Valuing indigenous knowledge systems: acknowledging the rich history and heritage of this country as important contributors to nurturing the values contained in the Constitution; and
- Credibility, quality and efficiency: providing an education that is comparable in quality, breadth and depth to those of other countries (NCS, 2002:1-4).

Table 3 indicates the weighting of the CAPS and the emphasis placed on each aspect of the required skills, knowledge and values.
### Table 3: Weighting of the CAPS

<table>
<thead>
<tr>
<th>The economy</th>
<th>Financial Literacy</th>
<th>Entrepreneurship</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>30%</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of money</td>
<td>Savings</td>
<td>Entrepreneurial skills and knowledge</td>
</tr>
<tr>
<td>Needs and wants</td>
<td>Budgets</td>
<td>knowledge</td>
</tr>
<tr>
<td>Goods and service</td>
<td>Income and expenditure</td>
<td>Business Factors of production</td>
</tr>
<tr>
<td>Poverty</td>
<td>Accounting concepts</td>
<td></td>
</tr>
<tr>
<td>The production process</td>
<td>Accounting cycle</td>
<td>Forms of ownership</td>
</tr>
<tr>
<td>Government</td>
<td>Source documents</td>
<td>Sectors of the economy</td>
</tr>
<tr>
<td>The national budget</td>
<td>Financial management and keeping records</td>
<td>Levels and functions of management</td>
</tr>
<tr>
<td>Standards of living</td>
<td></td>
<td>Functions of a business</td>
</tr>
<tr>
<td>Markets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic systems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The circular flow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade unions</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GRADE 7</th>
<th>GRADE 8</th>
<th>GRADE 9</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The economy:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>History of money</td>
<td>Government</td>
<td>Economic systems</td>
</tr>
<tr>
<td>Needs and wants</td>
<td>The national budget</td>
<td>The circular flow</td>
</tr>
<tr>
<td>Goods and services</td>
<td>Standards of living</td>
<td>Price theory</td>
</tr>
<tr>
<td>Poverty</td>
<td>Markets</td>
<td>Trade unions</td>
</tr>
<tr>
<td>The production process</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Financial literacy:** | | |
| Savings | Accounting concepts | CRJ and CPJ of sole trader |
| Budgets | Accounting cycle | General ledger |
| Income and expenditure | Source documents | Trial balance |
| Accounting concepts | CRJ and CPJ | DJ |
| Accounting cycle | Effects on the accounting equation | DAJ |
| | General ledger | CJ |
| | Trial balance | CAJ |

| **ENTREPRENEURSHIP:** | | |
| The entrepreneur | Factors of production | Sectors of the economy |
| Starting a business | Forms of ownership | Functions of a business |
| Business | Levels of management | Business plan |
| Entrepreneur’s day | Functions of management | |

Source: (DOE, 2010:6)
The education and schooling system in South Africa addresses the entrepreneurial problem and issue as part of the Economic and Management Sciences subject. In CAPS the learners will study:

- the needs and wants of different communities in societies
- the nature, processes and production of goods and services and business activities within the different sectors
- financial management, accounting as a tool for management of a business and record keeping
- the influence of demand and supply and pricing
- the flow of money and goods and services between households, business and government, and the rights and responsibilities of the different role-players in the economy
- how to achieve sustainable growth, reduce poverty and distribute wealth fairly, while profitability is still being pursued
- entrepreneurial skills and knowledge needed to manage self and environment effectively
- basic aspects of leadership and management
- the role of savings in sustainable economic growth and development
- trade unions and their influence in the economy
- the importance of using resources sustainably, effectively and efficiently (DOE, 2010:7).

The new policies cast teachers' roles in technological terms. They are seen as "delivery agents" of a pre-planned policy that they had no hand in shaping. Aside from that, teachers have not been adequately trained for the new policies. If they have had training, it has taken place in short workshops that assume a technical formula will be adequate to equip teachers for the complex tasks necessary for teaching in new and innovative ways. But the new policy initiatives require massive injections of educational resources -- in terms of specialized teacher skills, school resources, books, libraries, laboratories, extra or specialized classrooms and so on -- if they are to be viable and promote effective learning (Kallaway, 2007).

2.2.8 Method of teaching

John Martin (2011) argues that remedial assistance should be targeted on those youth at greatest risk of social exclusion. While back-to-the-classroom strategies might prove counterproductive for them, training programmes taught outside traditional schools, combined with regular exposure to work experience and adult mentoring, are often better strategies for these disconnected young people.
In short, investing in youth and giving them a better start in the world of work must be a priority for policymakers. The hardcore group of youth who are left behind will increase, meaning more young people facing poor employment and earnings prospects, with more difficult policy challenges as a result. In a context of ageing populations, as well as today’s unusually tough financial environment, OECD economies and societies simply cannot afford the large economic and social costs that such an outcome would entail (Martin, 2011).

Although many are interested in starting a business, nothing in their successful academic history has prepared them for the entrepreneurial process of identifying a market opportunity related to their interests, passions, and/or training and developing that market opportunity into a start-up business (Kourilsky, 1995:6).

The classroom as a society is analogous to a planned economy and convergence and not divergence is disproportionately rewarded within the school experience (Greene & Rice, 2007:138). The decisions of what, how and for whom to produce are usually totally centralised and decided by the planner (in this case, the teacher). In terms of the curriculum, learning opportunities, and demonstrating how learning took place, little autonomy is given to the consumers (in this case, the students) (Greene & Rice, 2007:139).

College students often ask “How many pages should my term project be?”. When they are told, “As many as it takes to convey your message,” they are often dismayed, confused and perplexed – but eventually they will be happier and more autonomous (Greene & Rice, 2007:139).

The student soon discovers that convergence is rewarded. The high grades go to those who have discovered what is expected, and there is often just one acceptable answer to a question, regardless of its complexity. There are “right” answers and “expected responses” to homework problems, examination questions, and sometimes even personal opinions. Even acceptable answers are often dictated by the curriculum and the teacher’s lesson plan (Greene & Rice, 2007:139) … the socialisation of youth throughout today’s schooling experiences tends to diminish their proclivity towards entrepreneurial thinking and behaviour.

Our young people are challenging us to provide them with educational opportunities to understand the role of entrepreneurship and to acquire the knowledge and skills required for successful entrepreneurship. Unfortunately, general recognition of what content should lie at the core of entrepreneurship education has not kept pace with the compelling and accelerating case emerging
for entrepreneurship education – especially in the educational delivery community. In particular, many schools and curricula have inadvertently clambered onto the much better understood and more accessible bandwagon of business management education in their well intentioned attempts to tackle the more poorly understood and elusive goal of real entrepreneurship education (Kourilsky, 1995:9).

The educational experience could have a powerful influence by implementing two strategic initiatives:

- Throughout the schooling process, create and sustain an educational environment in which creativity divergent traits of the entrepreneurial spirit are fostered and enhanced.
- At strategic times in the schooling process, introduce programs that enable individuals to experience entrepreneurial thinking and behaviour (Greene & Rice, 2007:141).

The so-called "Generation X" may in fact be "Generation E" – the entrepreneurial generation – judging from the results of the Gallup poll. This national survey rigorously sampled high school students, small business owners, and the general public on their opinions about starting a business, knowledge of entrepreneurship, and education in entrepreneurship (Kourilsky, 1995:3).

Education today is unabashedly oriented towards the "take-a-job" mentality. It conveys in both content and attitude that the student is being prepared for a career in which he or she will be working for some kind of small or large business entity – i.e., "taking a job" that someone else has already created (Kourilsky, 1995:5).

Our country's economic growth will hinge on our ability to create new jobs through entrepreneurship. Successful entrepreneurship, in turn, will require well-trained aspiring entrepreneurs willing to take the helm of venture creation. Effective initiatives in entrepreneurship education will be increasingly critical for expanding the flow of potential leaders from our school systems with the passion and the multiple skills needed not only to give birth to the inherently risky entrepreneurial enterprise but also to guide it successfully through the initial growth phase which is so subject to "infant-mortality" (Kourilsky, 1995:9).

With respect to the lack of entrepreneurship education and training in primary and secondary schools, one expert commented that “the current education system continues to favour rote
academic learning and largely ignores the realities of the world of work. It perpetuates the culture of entitlement and job-seeking (Ashby, 2011).

Although entrepreneurship is meant to form part of the secondary school curriculum, it is taught neither widely nor effectively enough – a situation which must be addressed as a matter of urgency (Herrington et al., 2008:32).

There is a large group of young people who are inactive – they are neither working, nor studying. This is a major loss to the economy, and presents social challenges. Young people that cannot find a way to improve their livelihood are at particular risk of becoming involved in anti-social behaviours, and it is thus imperative to find avenues for them to participate in the economy in a meaningful way (Herrington et al., 2010:26).

According to the Centre for Youth Entrepreneurship Education, “Effective youth entrepreneurship education prepares young people to be responsible, enterprising individuals who become entrepreneurs or entrepreneurial thinkers and contribute to economic development and sustainable communities” (CYEE, 2011).

The system also encourages higher education as the sole pathway to professional advancement and success, and creates the implication that vocational expertise is distinctly inferior to academic knowledge. Teachers are barely competent academically, let alone entrepreneurially, so they are unable to inspire and support those who show flair and passion. Worst of all, the system discourages individualism” (Herrington et al., 2010:29).

2.3 RESEARCH METHODOLOGY

This section details the empirical research study conducted within the Kenneth Kaunda District to explore the entrepreneurship competencies of the Economic Management Sciences teacher. The aim of this study was to investigate the level of knowledge, skills and training of EMS teachers and the emphasis in particular was placed on entrepreneurship training/knowledge and practical or hands-on experience and approach of entrepreneurship by the teacher as facilitator. The main objective was to research the entrepreneurship competencies, skills and knowledge of the EMS teacher who will be instrumental in promoting entrepreneurship under the youth of the
country. Young people, particularly, need to be encouraged to see entrepreneurship as a potential career option. Most have been conditioned towards seeking more traditional wage employment, as opposed to creating their own opportunities (Maas et al., 2008:63).

The secondary objectives were to identify training needs to ensure that the teacher has proper training in the specific specialist subject. EMS contains a high level of common sense, but specialized knowledge is needed, especially with the proposed changes in the syllabi of the GET and FET Phase as required by the proposed changes in the CAPS.

Using the literature study of Chapter 2 as the basis, a new questionnaire was developed by the author with entrepreneurship competencies determined *a priori* as sections to test the perceptions of respondents regarding the expected change in importance given to these competencies by EMS teachers.

Since the research study is exploratory in nature, the main research was conducted via the questionnaire that was sent out with the permission of the Department of Education.

2.3.1 The procedure and scope of the qualitative research

The empirical study, to research the entrepreneurship competencies of the Economic Management Science teacher, set out to explore the perceptions of teachers currently teaching EMS, their training in EMS and their practical experience in the world of business and commerce.

2.3.2 Sample group and size

All the schools in the Kenneth Kaunda district were selected for the study. Every school has at least one person teaching EMS with some schools having up to two teachers teaching EMS. The EMS questionnaires were distributed electronically to the school principals with the Department of Education’s written permission. The total population is 89 schools. The schools reached by electronic facilities were 57 schools. From the 57 schools targeted, there were 34 teachers who responded and returned their questionnaire by either e-mail or by fax.
In the qualitative research process all the respondents were selected as they make out such a small population. Larger sample sizes are preferred for statistical significance but this research was constrained by the number of schools in the Kenneth Kaunda District and the available time.

Because of the number of schools and the small number of respondents at each school convenience sampling were used. In convenience sampling, items are selected based only on the fact that they are easy, inexpensive, or convenient to sample (Levine et al., 2008:253).

2.3.3 The survey instrument

Two main approaches are adopted by researchers, namely quantitative and qualitative. The quantitative approach involves evaluation of objective data (numbers) whilst the qualitative approach involves the interpretation of subjective data (usually language) obtained from human beings. Quantitative research utilises analysis based on complex structured methods in an attempt to gain an outsider’s perspective. According to QSR, 2011, qualitative research seeks out the ‘why’, not the ‘how’ of its topic through the analysis of unstructured information – things like interview transcripts, open ended survey responses, emails, notes, feedback forms, photos and videos. It doesn't just rely on statistics or numbers, which are the domain of quantitative researchers.

Qualitative research is used to gain insight into people's attitudes, behaviours, value systems, concerns, motivations, aspirations, culture or lifestyles. It is used to inform business decisions, policy formation, communication and research. Focus groups, in-depth interviews, content analysis, ethnography, evaluation and semiotics are among the many formal approaches that are used, but qualitative research also involves the analysis of any unstructured material, including customer feedback forms, reports or media clips (QSR, 2011).

In conducting qualitative research, questionnaires are popular tools used by the researcher to obtain data in a cost and time efficient manner.

To meet the research objectives a qualitative approach was selected. A questionnaire was used as the survey instrument. In order to maximise the number of responses in the available time frame all schools with electronic facilities were utilised to identify and select those teachers currently teaching Economic Management Sciences that are of interest to this particular research
study. Electronic facilities were used as it allows a quick response from the respondents in the short time available allowing more individuals to be part of the research.

Based on the literature study performed in Chapter 2 a new questionnaire was developed to assess respondents’ perceptions of the importance of entrepreneurial knowledge, skills and training in teaching EMS.

The questionnaire was structured into TWO sections namely Section One – Biographical information consisting of Personal information; Teaching experience and Practical entrepreneurship experience and Section Two – Entrepreneurial behaviour by and perceptions of the teacher. It consisted of 40 selection type questions in which respondents were required to assess their opinion on their own stated skills in, and knowledge and perceptions of entrepreneurship.

A five-point Likert scale was utilised to assess perceived importance: Totally Disagree (1), Disagree Somewhat (2), Unimportant (3), Agree Somewhat (4) and Agree Totally (5).

Refer to Appendix A for the questionnaire developed for this research survey.

2.3.4 Data collection

A questionnaire via electronic facilities was used as the survey instrument as it allows a quick response from the respondents in the short time available allowing more individuals to be part of the research. The questionnaire was sent via an email from the author containing the background behind the study and a hyper-link to the survey created in the organisational electronic survey tool.

The EMS teachers were assured that all responses would be treated anonymously by the electronic survey tool which did not require any personal information of the respective respondent.

The questionnaire consists of two sections each concentrating on a different aspect of the teachers’ training.

Section one consisted of the personal information tested qualitative variables: being male/female; and numerical variables: age of respondent; qualifications of the respondent. The experience in
EMS tested variables such as phase of training; years of training in EMS; years of teaching in general and EMS in particular and the practical hands-on experience of the teacher in the entrepreneurship class.

Section two focused on the EMS teachers' opinions and perceptions of their skills in and their awareness of entrepreneurship, as well as their methods of teaching and aspects of the school syllabus.

2.4 RESEARCH FINDINGS

The biographical information questions were more descriptive and pie-charts were plotted from the gathered information.

2.4.1 Biographical information

The biographical information consists of the personal information gathered by the questionnaire: the experience of the EMS teacher and the practical entrepreneurship experience, telling us about the person who is teaching the subject Economic and Management Sciences.

2.4.1.1 Personal information

2.4.1.1.1 Gender of the teachers

The gender of the teachers teaching EMS was asked as the business world and entrepreneurship tend to be male-orientated. This however was not the case in teaching.
Out of a total of 34 respondents, nineteen are female; thirteen are male whilst the remaining two did not indicate their gender.

2.4.1.1.2 The ages of the teachers

The teachers’ responses indicated that there is a range of ages and that succession should not be of concern in the near future.
The ages of the respondents are as follows: two persons between 18 and 24; six persons between 25 and 29; two persons between 30 and 34; six persons between 35 and 39; seven persons between 40 and 44; five persons between 46 and 49; five persons between 50 and 59 and one person older than 60.

2.4.1.1.3 Training of teachers

The training of the teachers showed an encouraging statistic as no one has less than three years training and a few have 5 years and more training.

Figure 4: Years of teacher training

Source: Question 1.3 of the questionnaire

Teachers' training were indicated as follows; three teachers had 3 years training; twenty teachers had 4 years training and seven teachers had 5 years and more training. The number of respondents not indicating their years of training was four.
2.4.1.1.4 Type of qualifications

Of the teachers currently teaching Economic and Management Sciences 50% have a degree of which 32% have a B.Ed and 6% have a post graduate certificate in education (PGCE), following upon the achievement of a specialised degree such as a B.A. degree; a B Com degree or a B.Sc. degree.

Figure 5: Type of qualification

![Type of qualification](image)

Source: Question 1.4 of the questionnaire

Half of the teachers that responded had a degree either in teaching –11 persons with a B.Ed and 6 persons with various degrees and a post graduate certificate in education. The two teachers have a teaching diploma; three teachers have a teaching certificate and six teachers indicated other qualifications.

2.4.1.2 Experience of the EMS teacher

This question concentrates on the phase of training that the teacher has specialized in. The questionnaire is focusing on his or her field of specialisation phase, namely the foundation phase (Grade R-3); the intermediary phase (Grade 4-6); the senior phase (Grade 7-9) and the FET phase (Grade 10-12).
2.4.1.2.1 Phase of training

In the primary school teachers are supposed to teach Grade 4 to 7 thus 88% (38%+50%) are skilled in the primary school teaching. In the FET phase teachers who are qualified to teach Grade 10 to 12 are used to teach in the Senior phase, thus not using their specialist knowledge to the best advantage of the learners.

![Phase of training](image)

Figure 6: Phase of training

Source: Question 2.1 of the questionnaire

Of the teachers one was a foundation phase teacher; 15 were Intermediary phase specialists; 20 indicated that they were Senior phase teachers whilst four indicated their field of specialisation as the FET phase.

2.4.1.2.2 Years of training in EMS

The training that the teacher has in EMS was scrutinised. EMS was introduced as a learning area in the NCS and implemented in 2005. Before 2005 no official EMS training was received by the teachers as part of their teacher training (DOE 2005). The only teachers who received training in
EMS were those with a business degree. All the other teachers were only required to attend workshops to enable them to teach EMS.

**Figure 7: Years of training in EMS**

![Pie chart showing years of training in EMS]

Source: Question 2.2 of the questionnaire.

Two teachers indicated no training at all, five teachers had 1 year of training; one teacher had 2 years of training; two teachers had 3 years of training; seven teachers had 4 years of training; one teacher indicated 7 years of training while two indicated 10 years of training. Twelve teachers gave no indication of training.

### 2.4.1.2.3 Experience in teaching EMS

Many teachers have another field of specialisation and do not necessarily have previous experience in teaching EMS.
Five teachers indicated that this is the 1st year of teaching EMS; for one it was the 2nd year; six teachers indicated their 3rd year; one was in the 4th year; two in the 5th year; one each in the 6th and 7th year; five in their 8th year; three in their 9th year; two in their 10th year and five with more than 10 years. Two teachers gave no indication of their EMS teaching experience.

2.4.1.2.4 The current phase of teaching

Teachers have indicated their current phase of teaching for the year 2011, irrespective of the training they have, as follows:
The teachers in the primary schools responded as follows: seventeen are teaching Grade 4 to 6 and eleven are teaching Grade 7. Some of them have indicated that they teach in both phases. The teachers in the high schools have indicated that seven teaches Grade 8, ten teaches Grade 9, with some teachers teaching both grades.

2.4.1.2.5 Phase of training versus the phase of teaching

There is often a discrepancy between the phase the teacher is currently teaching compared to the phase they had trained for.
The teachers’ training are not fully utilised in their specialist area and teaching skills are used where it is needed rather than where for it was hoped for.

2.4.1.2.6 The reasons for teaching EMS

It differs from school to school but the tragic part is that 32% of the EMS teachers teach EMS because they have time available on their timetable and not because they have any business or entrepreneurship knowledge or training.
Six teachers had time available on their timetable; five have business or entrepreneurship knowledge; two have knowledge of Accounting; three have Business Studies knowledge; three have knowledge of Economics while fifteen gave no indication of the reason for teaching EMS.

2.4.1.3 Practical experience in entrepreneurship

EMS needs a hands-on approach as it must be made practical and must support the learners’ everyday experiences.
The majority of the teachers (eighteen) did not indicate any answer. Six teachers indicated no practical experience at all; two indicated 1 year; one each indicated 2 and 3 years; two indicated 6 years; three indicated 10 years and one teacher indicated 20 years of practical entrepreneurship experience. Of those who answered only 12% indicated more than 6 years experience with 17% indicating no experience at all.

2.4.2 Entrepreneurial behaviour by and perceptions of the EMS teacher

The questionnaire consisted of 40 selection type questions in which respondents were required to assess their opinion on their own stated skills in, knowledge and perceptions of entrepreneurship.

The Likert scale was reverted to a four point scale as answer 3 – unimportant was regarded as being a neutral. The scale is thus as follows: Totally Disagree (1), Disagree Somewhat (2), Agree Somewhat (3) and Agree Totally (4).
2.4.2.1 The perception of teachers

When asked about the skills of the entrepreneur 76.5% agreed totally that it was important while only 50% of the teachers rated knowledge as important to start an own venture. There were 32.4% who disagreed somewhat that there are knowledge restrictions on becoming an entrepreneur. On the statement that anybody can be an entrepreneur, the results were inconclusive as no clear result came forward – all the possibilities were marked.

2.4.2.2 The opinion of teachers

The opinion of the teachers on entrepreneurship were that the emphasis placed on it by the government and society is not overrated as 26.5% totally and 41.2% somewhat agreed. The teachers was of the opinion (35.3% totally agreed and 38.2% somewhat agreed) that entrepreneurship can be taught. Although there were 2.9% of the teachers that were of the opinion that entrepreneurship was for people who cannot find work in the formal sector, 50% totally disagreed. Knowledge was a requirement for entrepreneurship as 53% of teachers somewhat and totally agreed with. The entrepreneurship syllabus encourages learners to become entrepreneurs in the opinion of 85.3% of all respondents.

Figure 13: Teachers’ opinion on entrepreneurship

Source: Questions 4.4; Q4.5; Q4.6; Q4.7; Q4.8 of the questionnaire
Teachers have a positive opinion on entrepreneurship overall.

2.4.2.3 Skills needed by the learner.

Learners must have certain skills to enable them to become an entrepreneur. The teachers are very confident in their ability to teach the necessary skills of entrepreneurship to the learners. When asked whether they can teach entrepreneurship to learners the majority 55.9% (totally agree) and 41.2% (somewhat agree) that they as teachers are able to teach it. Part of the skills that learners are taught are used in entrepreneurial days where the learner must make their own product (79.4% agree), checked by the teacher (82.4%) to fulfil a need (85.3% totally agree), compile a business plan (67.3% totally agree) and submit a report on the results of the entrepreneurial day (85.3% agreed).

2.4.2.4 Awareness

Creating an awareness of entrepreneurship and opening the learners to the possibilities that entrepreneurship is one of the key elements of EMS teaching.

Teachers create this awareness by having entrepreneurial days at school (52.9%) and using examples that relate to the learners’ everyday experiences (58.8%). The one aspect that does not receive the same overwhelming response is guest speakers.

**Figure 14: Importance of guest speakers**

<table>
<thead>
<tr>
<th>Guest speakers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unimportant</td>
<td>14.7%</td>
</tr>
<tr>
<td>Agree Totally</td>
<td>14.7%</td>
</tr>
<tr>
<td>Agree somewhat</td>
<td>23.5%</td>
</tr>
<tr>
<td>Disagree somewhat</td>
<td>23.5%</td>
</tr>
<tr>
<td>Totally disagree</td>
<td>20.6%</td>
</tr>
</tbody>
</table>

Source: Question 4.17 of the questionnaire.

It seems that there is no consensus on using guest speakers as a method of teaching entrepreneurship.
2.4.2.5 Teaching entrepreneurship or teaching about it

One of the requirements of an EMS teacher is that they have not only the academic knowledge of EMS but also the practical know-how of entrepreneurship. It was tested from question 4.19 (reversed) to question 4.24. The mean of 3.05 showed average for somewhat agreed (3) and the standard deviation was 0.44.

2.4.2.6 Educational theories

The entrepreneurship program is sufficient enough to ensure that learners enter the business world according to the mean of 2.90. The standard deviation on entrepreneurship by doing is 0.545.

2.4.2.7 Training received by the teachers

Teachers agreed that they have the necessary academic training to teach entrepreneurship (70.6%) and that their training has prepared them to teach it (70.6%). The information they need is readily available (67.6%); however, it is a challenge and takes a lot of preparation (85.3%). It is a practical subject learners can relate to (82.4%) and has value in the learners’ everyday lives (88.3%).

2.4.2.8 The entrepreneurship syllabus

Correlating with the answers in 2.3.5.2.7 teachers felt that they needed no additional EMS training (67.7%). For the entrepreneurship syllabus in future (CAPS) (2013) only 20.6% were of the opinion that they received the necessary training and 38.3% agreed that they need additional training. The teachers concerned about the entrepreneurship volume in CAPS were 23.6% and half of them (50%) are confident that the new CAPS will work.

2.4.2.9 Methods of teaching used by the teacher

When analysing the methods the total average mean is 3.54 and the average standard deviation is 0.42. The teaching is outcome based (91.5% agreed) where the participation of the learners is a requirement (97.1% agreed) and theory is linked to practical applications in 97% of responses.
2.4.2.10 EMS and CAPS

Although most teachers are content with the current school syllabus and thus the EMS syllabus and content, the teachers are worried about the new CAPS. Most of the primary school respondents indicated no training up to date on the CAPS.

**Figure 15: EMS versus CAPS**

The results clearly indicated that CAPS training is a concern for the teachers.

2.4.2.11 Practice versus Theory

When analysing the teachers’ methods of combining theory with the practice the following results were indicated. The mean of the questions is 3.54 and the standard deviation is 0.41. Most teachers put the theory into practice as clearly indicated by figure 16.
Most of the respondents indicated that they combined practice and theory.

2.4.2.12 Entrepreneurial days

Entrepreneurial days seem to be a firm favourite under the teachers with an average mean of 3.54 and a standard deviation of 0.35. Most schools have entrepreneurial days with the learners organising the day and reporting back to the teacher. The teacher has a firm grip on the entrepreneurial day. They check the products for need fulfilment and creativeness, let the learners compile a business plan and have them submit a written entrepreneurs’ day report.
2.4.2.13 The school syllabus

Teachers’ opinion on the entrepreneurship content of the school syllabus was analysed. Most of the teachers are happy with the way in which Entrepreneurship is addressed in the curriculum.

**Figure 17: School syllabus on entrepreneurship**

![Bar chart showing teachers' opinions on the entrepreneurship content of the school syllabus.]

Source: Questions 4.8; 4.21; 4.24 and 4.28

The teachers’ opinion on the syllabus is that it does enough to encourage entrepreneurship amongst the learners.

2.4.3 Reliability

Before analysing the results obtained via the questionnaire it is essential to test the reliability of the newly developed questionnaire. A questionnaire that is reliable is expected to provide results that are both accurate and consistent (Field, 2009:673). Various methods may be utilised to test the reliability of a questionnaire; however, the internal consistency methods offer the advantage to estimate reliability utilising scores from a single testing session rather than by repeating the test (Ravid & Oyer, 2011:194-195). For this research study Cronbach alpha coefficient was the internal consistency method utilised to estimate reliability.
2.4.3.1 Cronbach’s alpha coefficient

Cronbach alpha is a measure of internal consistency, that is, how closely related a set of items are as a group. A "high" value of alpha is often used (along with substantive arguments and possibly other statistical measures) as evidence that the items measure an underlying (or latent) section. However, a high alpha does not imply that the measure is unidimensional. If, in addition to measuring internal consistency, you wish to provide evidence that the scale in question is unidimensional, additional analyses can be performed. Exploratory factor analysis is one method of checking dimensionality. Technically speaking, Cronbach alpha is not a statistical test – it is a coefficient of reliability (or consistency).

Cronbach alpha can be written as a function of the number of test items and the average inter-item correlation among the items. Below, for conceptual purposes, we show the formula for the standardized Cronbach alpha (UCLA, 2007).

Equation 1: **Cronbach alpha coefficient**

\[
\alpha = \frac{k}{k-1} \left[ 1 - \frac{\sum_i^k S_i^2}{S_T^2} \right]
\]

Where:

- \(\alpha\) = Cronbach alpha coefficient
- \(k\) = number of items in the analysis
- \(S_i\) = item standard deviation
- \(S_T\) = total standard deviation of all items in the section

(GraphPad Prism, Interpreting Statistical Results: Analyzing Data with GraphPad Prism, 2011)

If you increase the number of items, you increase Cronbach alpha. Additionally, if the average inter-item correlation is low, alpha will be low. As the average inter-item correlation increases, Cronbach alpha increases as well (holding the number of items constant) (UCLA, 2007).

Field (2009:675) refers to a generally acceptable value of Cronbach alpha of greater than 0.8 for cognitive tests (e.g. intelligence tests) whilst lower values of greater than 0.7 are suitable for ability tests. Cronbach alpha coefficient was calculated for each of the 12 sections and the results are given in Table 4.
The first eight questions had to be dealt on their own as no reliability could be found between them (Questions 4.1 to 4.8).

Table 4: Cronbach Alpha Coefficient

<table>
<thead>
<tr>
<th>Section</th>
<th>Cronbach alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Skills</td>
<td>0.577</td>
</tr>
<tr>
<td>2 Awareness</td>
<td>0.575</td>
</tr>
<tr>
<td>3 Teaching entrepreneurship or teaching about it</td>
<td>0.654</td>
</tr>
<tr>
<td>4 Educational theories</td>
<td>0.522</td>
</tr>
<tr>
<td>5 Training of teachers</td>
<td>0.688</td>
</tr>
<tr>
<td>6 Entrepreneurship syllabus</td>
<td>0.780</td>
</tr>
<tr>
<td>7 Methods of teaching</td>
<td>0.745</td>
</tr>
<tr>
<td>8 EMS</td>
<td>0.698</td>
</tr>
<tr>
<td>9 CAPS</td>
<td>0.706</td>
</tr>
<tr>
<td>10 Practice and theory combination</td>
<td>0.713</td>
</tr>
<tr>
<td>11 Entrepreneurial days</td>
<td>0.593</td>
</tr>
<tr>
<td>12 School syllabus</td>
<td>0.755</td>
</tr>
</tbody>
</table>

The Cronbach alpha coefficient indicates reliability or internal consistency. Guideline values: above 0.7, above 0.5 can also be used but interpretation should be done with caution. When testing psychological sections even lower values can be realistically accepted due to the diversity of sections being measured (Field, 2009:675).

Negative values due to a negative average covariance among items violate the reliability model assumptions and were ignored for purposes of this study.

Seven sections yielded a Cronbach alpha of less than 0.7:

- Skills (7 items) $(\alpha = 0.577)$
- Awareness (3 items) $(\alpha = 0.575)$
- Teaching entrepreneurship or teaching about it (6 items) $(\alpha = 0.654)$
- Educational theories (2 items) $(\alpha = 0.522)$
- EMS (8 items) $(\alpha = 0.698)$
- Entrepreneurial days (7 items) $(\alpha = 0.593)$

Since attitudes are being measured rather than ability all sections with Cronbach alpha of 0.5 and above were used. The majority (68%) of the Cronbach alpha coefficients calculated were found to
be greater than 0.5 but lower than 0.7 which indicates some degree of internal consistency for the questionnaire used. Five sections (42%) were higher than 0.7 thus indicating a high degree of reliability. The questionnaire in totality is not reliable, but some of the sections thereof can be regarded as reliable.

Based on the above, the mean response count for the 12 sections in Table 6 can be used in analysis to draw conclusions regarding the perception and opinions of the EMS teacher.

2.4.3.2 Mann-Whitney Test

The Mann-Whitney test, also called the rank sum test, is a nonparametric test that compares two unpaired groups. To perform the Mann-Whitney test, all values are ranked from low to high, paying no attention to which group each value belongs. If two values are the same, then they both get the average of the two ranks for which they tie. The smallest number gets a rank of 1. The largest number gets a rank of N, where N is the total number of values in the two groups.

The Mann-Whitney test were used to draw a correlation between the perceptions of the younger teachers (18 years to 34 years) compared to the more mature teacher (35+) as in Table 5 below.

Table 5: Mann-Whitney test on age groups

<table>
<thead>
<tr>
<th>Sections</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>The teachers’ perception of entrepreneurship</strong></td>
<td></td>
</tr>
<tr>
<td>An entrepreneur is someone who has the skills to start their own venture</td>
<td>.247</td>
</tr>
<tr>
<td>An entrepreneur is someone who has the knowledge to start their own venture</td>
<td>.124</td>
</tr>
<tr>
<td>Anybody who wants to can be an entrepreneur</td>
<td>.132</td>
</tr>
<tr>
<td><strong>The teachers’ opinion on entrepreneurship</strong></td>
<td></td>
</tr>
<tr>
<td>My opinion is that entrepreneurship is overrated</td>
<td>.075</td>
</tr>
<tr>
<td>Entrepreneurship cannot be taught</td>
<td>.105</td>
</tr>
<tr>
<td>Entrepreneurship is for people who cannot find work in the formal sector of the economy</td>
<td>.248</td>
</tr>
<tr>
<td>There are no knowledge restrictions to becoming an entrepreneur</td>
<td>.112</td>
</tr>
<tr>
<td>The school syllabus encourages learners to become entrepreneurs</td>
<td>.208</td>
</tr>
<tr>
<td><strong>Skills</strong></td>
<td>.043</td>
</tr>
<tr>
<td><strong>Awareness</strong></td>
<td>.134</td>
</tr>
<tr>
<td><strong>Teaching entrepreneurship or teaching about it</strong></td>
<td>.143</td>
</tr>
<tr>
<td><strong>Educational theories</strong></td>
<td>.101</td>
</tr>
<tr>
<td><strong>Training of teachers</strong></td>
<td>.233</td>
</tr>
<tr>
<td><strong>Entrepreneurship syllabus</strong></td>
<td>.026</td>
</tr>
</tbody>
</table>
Questions 4.1; 4.6 and 4.8 indicated practical visible differences but the other questions and sections have no particular significant difference indicating the similarity in perception between the teachers of all ages.

The second comparison tested was the **differences** between the perceptions of the primary school teachers compared to the perceptions of the high school teachers as per table 6.

### Table 6: Mann-Whitney test on primary and high school teachers

<table>
<thead>
<tr>
<th>Sections</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teachers’ perception of entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>An entrepreneur is someone who has the skills to start their own venture</td>
<td>.118</td>
</tr>
<tr>
<td>An entrepreneur is someone who has the knowledge to start their own venture</td>
<td>.059</td>
</tr>
<tr>
<td>Anybody who wants can be an entrepreneur</td>
<td>.058</td>
</tr>
<tr>
<td>The teachers’ opinion on entrepreneurship</td>
<td></td>
</tr>
<tr>
<td>My opinion is that entrepreneurship is overrated</td>
<td>.115</td>
</tr>
<tr>
<td>Entrepreneurship cannot be taught</td>
<td>.064</td>
</tr>
<tr>
<td>Entrepreneurship is for people who cannot find work in the formal sector of the economy</td>
<td>.108</td>
</tr>
<tr>
<td>There are no knowledge restrictions to becoming an entrepreneur</td>
<td>.189</td>
</tr>
<tr>
<td>The school syllabus encourage learners to become entrepreneurs</td>
<td>.140</td>
</tr>
<tr>
<td>Skills</td>
<td>.103</td>
</tr>
<tr>
<td>Awareness</td>
<td>.041</td>
</tr>
<tr>
<td>Teaching entrepreneurship or teaching about it</td>
<td>.230</td>
</tr>
<tr>
<td>Educational theories</td>
<td>.034</td>
</tr>
<tr>
<td>Training of teachers</td>
<td>.266</td>
</tr>
<tr>
<td>Entrepreneurship syllabus</td>
<td>.323</td>
</tr>
<tr>
<td>Methods of teaching</td>
<td>.102</td>
</tr>
<tr>
<td>EMS</td>
<td>.046</td>
</tr>
<tr>
<td>CAPS</td>
<td>.508</td>
</tr>
<tr>
<td>Practice and theory combination</td>
<td>.012</td>
</tr>
</tbody>
</table>
Entrepreneurial days | 0.090
School syllabus   | 0.078

≈ 0.1 Small, No practically significant difference
≈ 0.3 Medium, Practically visible difference
≈ 0.5 Large, Practically significant difference (Wheater & Cook, 2000)

The sections: **Teaching entrepreneurship or teaching about it** and **Training of teachers** indicate practical visible differences while the section **Entrepreneurship syllabus** indicated a medium difference. The section **CAPS** has a particular significant difference indicating the large disparity in perception between the primary school teacher and the high school teacher.

### 2.4.4 Assessment of the sections measured in the study

Using the Cronbach alpha coefficient and Mann-Whitney Test a frequency analysis and descriptive statistics were performed on the response datasets by Statistical Consultation Services of North-West University on SPSS 20.0.0. SPSS (Statistical Package for the Social Sciences) – a data management and analysis product produced by SPSS, Inc. in Chicago, Illinois. Among its features are modules for statistical data analysis, including descriptive statistics such as plots, frequencies, charts, and lists, as well as sophisticated inferential and multivariate statistical procedures like analysis of variance (ANOVA), factor analysis, cluster analysis, and categorical data analysis. SPSS is particularly well-suited to survey research, though by no means is it limited to just this topic of exploration (Information Technology Services, 2011).

#### 2.4.4.1 Margin of error

Because of the small sample size there can be a margin of error. The ideal would have been to have more than 50 questionnaires returned instead of the 34 that were returned.

#### 2.4.4.2 Arithmetic mean and standard deviation

For any sample the arithmetic mean (or simply the mean), denoted as $\bar{x}$ and is the most commonly used measure of central tendency indicating the balance point in a set of data (Levine et al., 2008:97). It is the average of the set of data.

The standard deviation (S) of a sample is a measure of the extent of variation in a frequency distribution and it gives an indication of how close the data is to the mean. According to the
empirical rule for bell-shaped distributions, 95% of the values in the sample data will fall within a distance of ± two standard deviations of the mean (Levine et al., 2008:120).

The arithmetic mean and standard deviation calculated for each of the sections are given in Table 7.

Table 7: Arithmetic mean and standard deviation of sections

<table>
<thead>
<tr>
<th>Sections</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>The teachers’ perception of entrepreneurship</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>An entrepreneur is someone who has the skills to start their own venture</td>
<td>3.76</td>
<td>0.41</td>
</tr>
<tr>
<td>An entrepreneur is someone who has the knowledge to start their own venture</td>
<td>3.45</td>
<td>0.67</td>
</tr>
<tr>
<td>Anybody who wants can be an entrepreneur</td>
<td>2.69</td>
<td>1.04</td>
</tr>
<tr>
<td>The teachers’ opinion on entrepreneurship</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>My opinion is that entrepreneurship is overrated</td>
<td>2.00</td>
<td>0.81</td>
</tr>
<tr>
<td>Entrepreneurship cannot be taught</td>
<td>1.88</td>
<td>0.78</td>
</tr>
<tr>
<td>Entrepreneurship is for people who cannot find work in the formal sector of the economy</td>
<td>1.71</td>
<td>0.84</td>
</tr>
<tr>
<td>There are no knowledge restrictions to becoming an entrepreneur</td>
<td>2.30</td>
<td>0.99</td>
</tr>
<tr>
<td>The school syllabus encourage learners to become entrepreneurs</td>
<td>3.22</td>
<td>0.61</td>
</tr>
<tr>
<td>Skills</td>
<td>3.54</td>
<td>0.99</td>
</tr>
<tr>
<td>Awareness</td>
<td>3.21</td>
<td>0.35</td>
</tr>
<tr>
<td>Teaching entrepreneurship or teaching about it</td>
<td>3.41</td>
<td>0.64</td>
</tr>
<tr>
<td>Educational theories</td>
<td>3.12</td>
<td>0.44</td>
</tr>
<tr>
<td>Training of teachers</td>
<td>3.24</td>
<td>0.56</td>
</tr>
<tr>
<td>Entrepreneurship syllabus</td>
<td>2.08</td>
<td>0.46</td>
</tr>
<tr>
<td>Methods of teaching</td>
<td>3.54</td>
<td>0.74</td>
</tr>
<tr>
<td>EMS</td>
<td>3.05</td>
<td>0.42</td>
</tr>
<tr>
<td>CAPS</td>
<td>2.08</td>
<td>0.45</td>
</tr>
<tr>
<td>Practice and theory combination</td>
<td>3.35</td>
<td>0.87</td>
</tr>
<tr>
<td>Entrepreneurial days</td>
<td>3.52</td>
<td>0.41</td>
</tr>
<tr>
<td>School syllabus</td>
<td>3.25</td>
<td>0.42</td>
</tr>
</tbody>
</table>

The section **Skills** ($\bar{x} = 3. S= 0.35$) yielded the highest mean value whilst the section **CAPS** ($\bar{x} = 2.08; S=0.87)$ yielded the lowest mean value.
Relatively high means were also obtained for the factors Methods of teaching ($\bar{X} = 3.54$, $S = 0.42$) and Teaching entrepreneurship or teaching about it ($\bar{X} = 3.41$, $S = 0.44$). The section EMS ($\bar{X} = 3.05$, $S = 0.45$) yielded the second lowest mean value.

2.4.5 Conclusion on the reliability

The reliability of the newly developed questionnaire was found to be acceptable with Cronbach alpha coefficients calculated to be above 0.5 although care should be taken with the results as it measures perceptions.
REFERENCES


CYEE  See CENTRE FOR YOUTH ENTREPRENEURSHIP EDUCATION


CHAPTER THREE

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

3.1. INTRODUCTION

The primary aim of this study was to investigate the level of knowledge, skills and training of EMS teachers in the Kenneth Kaunda District. Emphasis was placed in particular on entrepreneurship training/knowledge and practical hands-on experience of entrepreneurship of the teacher as facilitator.

The secondary objectives were to identify training needs to ensure that the teacher has proper training in the specific specialist subject. EMS contains a high level of common sense, but specialized knowledge is needed, especially with the proposed changes in the syllabi of the Senior and FET phases as required by the proposed changes in the CAPS.

3.2 CONCLUSION

The entrepreneurship teacher does seem satisfied with their training, methods of training, teaching methods and hands-on practical approach. That was their opinion and they explained their entrepreneurial behaviour in the class situation. The questionnaire, however, did not test the learners’ reactions to the same questions and a recommendation is to test learner perspectives and so no comment can be made on the validity of the teachers’ claims.

Entrepreneurship education derives its importance from three major themes:

1. The demand for entrepreneurship education.
   The government has all the policies in place to promote entrepreneurship but a lack of adequate training and teaching is a major obstacle in the proper implementation of the policies. If one analyses the questionnaire, the teachers seem to be well trained and they displayed entrepreneurial tendencies. It must be noted that these teachers have adequate electronic facilities. The teachers who had no electronic facilities were not included in this survey, and could be a topic of interest for future research.
2. **Educational access to the "Make-a-Job" option**

Teachers should develop the learner in their class to be an independent lateral thinker, not taking everything for granted but to be questioning. Learners must understand the rationale behind teaching and not learn the facts to repeat it as a parrot.

3. **Economic growth is created through job creation.**

The teachers must introduce more guest speakers and entrepreneurs to the learners while teaching entrepreneurship. The real money makers in the world are the entrepreneur. Entrepreneurship leads to new business ventures that employ more people thus reducing unemployment and increasing the quality of the lifestyle of the employee.

### 3.3 LIMITATIONS

This study was limited to verifying the competence level of entrepreneurship training in, and the skills and knowledge of school teachers teaching the subject Economic and Management Sciences to the Kenneth Kaunda District. It was further limited, by concentrating on the teacher and school who had access to electronic facilities (e-mail and fax machines).

### 3.4 RECOMMENDATIONS

Early exposure to entrepreneurship in schools is essential. It is important to teach business skills and to encourage entrepreneurial activities at primary, as well as secondary schools. A focus on entrepreneurial skills development is necessary to create an awareness of entrepreneurship as a viable career option.

An entrepreneurial mindset is not just for entrepreneurs. It must include a variety of stakeholders who are willing to support and co-operate with dynamic efforts. In addition, non-entrepreneurs with entrepreneurial mindsets may indirectly stimulate others to start businesses. This indicates the value of broader societal acceptance of entrepreneurship (Kelley et al., 2011:11).
If we want to improve teaching in our schools, we must have a careful look at the basic school system. The major problem with the new CAPS in EMS is that no primary school would appoint a teacher just for one grade (Grade 7) and the CAPS demand that 43% of the content should be accounting. Only 10% of the respondents currently teaching EMS indicated accounting as a field of knowledge. To use teachers effectively it might be more successful to have middle schools so that the teachers in the Senior phase can concentrate on their specialist field. One of the critiques against the new CAPS is that there is not yet a subject such as Entrepreneurship that focuses solely on entrepreneurship and job creation.

All the plans are in place and the action plan for implementing the CAPS to start in 2012, but the critical fact of having qualified, motivated and conscientious teachers still needs to be addressed. We must utilise the knowledge of the current teachers to maximise the number of learners to be reached in each school. Use specialist teachers for specialist phase training.

A large amount of money should be allocated to teacher training and mentorships in the next few years if the government wants learners to be motivated to start their own business and make a significant contribution towards self-sustainability and job creation.
REFERENCES

APPENDIX A: QUESTIONNAIRE 2011

Thank you for taking the time to complete this questionnaire. The results will be kept confidential and will not be for public knowledge. The information gained will be used to develop a programme to help EMS teachers with the teaching practicalities of Entrepreneurship.

Please mark the appropriate box with a cross.

1 Personal information:
   1.1 Gender
   1 Male 2 Female
   1.2 Age group
   1 18-24 2 25-29 3 30-34 4 35-39
   5 40-44 6 45-49 7 50-59 8 60+
   1.3 Teacher Training
   1 1 year 2 2 years 3 3 years 4 4 years 5 More

2 Experience
   2.1 Phase of training
   Foundation Intermediate Senior FET
   2.2 Years of training in EMS
   2.3 Years of teaching in general
   2.4 Years of teaching EMS
   2.5 Current teaching EMS
   Grade 4-6 Grade 7 Grade 8 Grade 9
   2.6 If no official training in EMS, The reason for teaching EMS
   2.7 Time available on timetable
   Knowledge of Business / entrepreneurship
   Qualifications in
   1 2 3 4 5
   3 Accounting Business Studies Economics

3 Practical years of experience in Entrepreneurship
   Years

4 Mark the statements from 1 to 5 with a cross
   1= Totally disagree 2= Disagree somewhat 3= Unimportant
   4= Agree somewhat 5= Agree totally
   4.1 An entrepreneur is someone who has the skills to start their own venture
   4.2 An entrepreneur is someone who has the knowledge to start their own venture
   4.3 Anybody who wants can be an entrepreneur
   4.4 My opinion is that entrepreneurship training is overrated
   4.5 Entrepreneurship cannot be taught
   4.6 Entrepreneurship is for people who can’t find work in the formal sector of the economy.
   4.7 There are no knowledge restrictions to becoming an entrepreneur
   4.8 The school syllabus encourage learners to become entrepreneurs
   4.9 Planning forms a basic building stone in teaching EMS
   4.10 I can teach entrepreneurial skills to learners
   4.11 One of the requirements for the entrepreneur’s day is that the products must fulfill a consumer need.
   4.12 The items sold on a entrepreneurs days must be created by the learners themselves
   4.13 I let the learners compile a business plan for their entrepreneur day
4.14 I check whether the pupils have made their own products
4.15 A report after the market day must be submitted by the learner as to explain the results of the day.
4.16 I create awareness of entrepreneurship by having entrepreneurial days at school
4.17 Visiting guests speakers are one of my methods of teaching entrepreneurship
4.18 The examples I use in the EMS class can be related to the learners everyday experiences
4.19 I organize the entrepreneurs day without input from the learners
4.20 I can compile a business plan when asked by a friend
4.21 I can see the rational of EMS teaching in primary school
4.22 I can apply my EMS knowledge in my personal life
4.23 I have contacts in the business world.
4.24 My teaching encourages my learners to consider entrepreneurship as a viable career option.
4.25 I have the necessary academic training to teach entrepreneurship
4.26 The learner is taught entrepreneurship skills by doing.
4.27 My educational training has prepared me to teach EMS
4.28 The entrepreneurship program in school is sufficient to ensure that learners enter business.
4.29 The information for entrepreneurship is readily available
4.30 Teaching EMS is a challenge because it takes a lot of preparation
4.31 EMS is a practical subject that the learners can relate too.
4.32 EMS has no value to the learners in their everyday lives
4.33 I need additional training at this stage to teach EMS effectively.
4.34 I have received the necessary training in CAPS
4.35 I am concerned about the amount of Entrepreneurship content in the CAPS
4.36 I need additional training in future to be able to teach the Entrepreneurship content for CAPS
4.37 I am confident that the new CAPS for Economic and Management Sciences will work
4.38 The EMS classes I teach are outcome based
4.39 The participation of the learners is an absolute must in EMS
4.40 The theory of entrepreneurship is enforced by linking it to the practical application by the learners

Thank you for completing the questionnaire. It is highly appreciated.