THE RELATIONSHIP OF ENTREPRENEURIAL ATTITUDE AND ENTREPRENEURSHIP

by

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NOVEMBER 2000
I declare that THE RELATIONSHIP OF ENTREPRENEURIAL ATTITUDE AND ENTREPRENEURSHIP, is my own work and that all sources that I have used or quoted have been indicated and acknowledged by means of complete references.

[Signature]
C.L. De Lange (Mrs)

30-10-2000
DATE
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  "Whatever you do, work at it with all your heart, as working for the Lord, not for men, since you know that you will receive an inheritance from the Lord as a reward. It is the Lord Christ you are serving."

  Colossians 3: 23-24
SUMMARY

THE RELATIONSHIP OF ENTREPRENEURIAL ATTITUDE AND ENTREPRENEURSHIP

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The high unemployment rate, especially amongst school leavers could be counterbalanced by raising awareness of entrepreneurship as a career option.

This investigation explores the relationship of entrepreneurial attitude, entrepreneurship and who the entrepreneur is, as is presented in the literature. The focus has shifted from testing for personality traits to identifying entrepreneurial attitude, attributes, behaviour and activities. A questionnaire, the GET (General Enterprising Tendencies test) was used to determine the levels of entrepreneurial attitude amongst a group of grade 11 learners in three South African secondary schools, with the aim of raising awareness of their personal levels of entrepreneurial attitude and making them aware of entrepreneurship as a career option.

It was found that inter alia, a culture of entrepreneurship is not prevalent amongst learners and prospective school leavers in South Africa.

KEYWORDS

Entrepreneur
Entrepreneurial attitude
Entrepreneurial attributes
Entrepreneurship
Identify
Relationship
GET (General Enterprising Tendencies)
Questionnaire
Testing
Career option
# TABLE OF CONTENTS

## CHAPTER 1: GENERAL ORIENTATION, BACKGROUND TO AND STATEMENT OF THE PROBLEM

1.1 INTRODUCTION ........................................... 1

1.2 AWARENESS OF THE PROBLEM .......................... 2

1.3 ANALYSIS OF THE PROBLEM ............................ 4

1.4 PROBLEM FORMULATION/ HYPOTHESIS OF THE STUDY ... 9
   1.4.1 General problem ..................................... 9
   1.4.2 Specific problems .................................. 10

1.5 AIM(S) OF THE STUDY .................................... 10
   1.5.1 Primary Aim ....................................... 10
   1.5.2 Secondary Aim .................................... 10
   1.5.3 Tertiary Aim ...................................... 11

1.6 RESEARCH METHODOLOGY ............................... 11
   1.6.1 Literature study .................................... 11
   1.6.2 Empirical investigation ............................ 11

1.7 DEMARCATION AND LIMITATION OF STUDY ............... 12

1.8 DEFINITIONS OF CONCEPTS OR TERMS .................. 12

1.9 PROGRAMME OF STUDY .................................. 14

1.10 CONCLUSION ............................................ 15

## CHAPTER TWO: ENTREPRENEUR, ENTREPRENEURSHIP, ENTREPRENEURIAL ATTITUDE

2.1 INTRODUCTION .......................................... 16

2.2 DEFINITIONS OF AN ENTREPRENEUR AND ENTREPRENEURSHIP .... 16
   2.2.1 Introduction ....................................... 16
2.2.2 The origins of the word ‘entrepreneur’ 17
2.2.3 Defining an entrepreneur 17
  2.2.3.1 Innovative risk taking 18
  2.2.3.2 Production processing 19
  2.2.3.3 Creatively contributing to economic progress 21
  2.2.3.4 Profit making 22
  2.2.3.5 Management and business management attributes 23
2.2.4 Elements of entrepreneurship 26
2.2.5 Defining entrepreneurship 27
2.2.6 Conclusion 34

2.3 CHARACTERISTICS OF AN ENTREPRENEUR 35
  2.3.1 Introduction 35
  2.3.2 Capturing characteristics and/ or personality traits 36
  2.3.3 Refinement of various psychological characteristics that entrepreneurs have in common 40
    2.3.3.1 Need for Achievement 40
    2.3.3.2 Moderate Risk Propensity/ tendency 41
    2.3.3.3 Internal Locus of Control 42
    2.3.3.4 Desire for independence/ autonomy 43
    2.3.3.5 Innovation and creativity 43
    2.3.3.6 Vision 44
    2.3.3.7 Opportunism/ optimism 44
    2.3.3.8 Tolerance for ambiguity 44
    2.3.3.9 Other characteristics 45
  2.3.4 Questioning the traditional approach of isolating personality characteristics in order to identify entrepreneurs 46
  2.3.5 Conclusion 48

2.4 DEFINING ENTREPRENEURIAL ATTITUDE, BEHAVIOUR AND PROCESS 49
  2.4.1 Introduction 49
  2.4.2 Occupational choice and entrepreneurial choice 50
  2.4.3 The entrepreneurial process 51
  2.4.4 Entrepreneurial attitudes and behaviour 52
  2.4.5 Conclusion 54

2.5 DIFFERENT TYPES OF ENTREPRENEURS 55
  2.5.1 Introduction 55
  2.5.2 Categorising entrepreneurs 55
  2.5.3 Conclusion 58
2.6 OTHER THEORIES, VIEWS, FRAMEWORKS AND MODELS ON THE DEVELOPMENT OF ENTREPRENEURSHIP, ENTREPRENEURIAL ATTITUDE AND WHO THE ENTREPRENEUR IS

2.6.1 Introduction 59
2.6.2 Various new approaches 59
  2.6.2.1 Jurcova - determining successful activities 59
  2.6.2.2 McClelland and McBer's core competency model 60
  2.6.2.3 Mahadea's three major themes 63
  2.6.2.4 Schloss' three stages of performance 63
  2.6.2.5 Hornaday's model based on the 'fuzzy set theory' 64
2.6.3 Conclusion 65

2.7 SUMMARY 66

CHAPTER 3: FACTORS INFLUENCING ENTREPRENEURSHIP AND MEASUREMENTS OF ENTREPRENEURSHIP

3.1 INTRODUCTION 68

3.2 FACTORS INFLUENCING ENTREPRENEURSHIP 69
  3.2.1 Introduction 69
  3.2.2 Biographical variables as possible predictors of increased development of entrepreneurial attitude 69
  3.2.3 External factors and their effect on entrepreneurship 70
  3.2.4 Conclusion 74

3.3 THEORETICAL BACKGROUND ON MEASURING ENTREPRENEURSHIP 75
  3.3.1 Introduction 75
  3.3.2 Intelligence 76
    3.3.2.1 Testing for competence rather than intelligence - McClelland 76
    3.3.2.2 Intelligence testing and cultural technologies - Olson 80
    3.3.2.3 Intelligence and the workplace - Gardner, Kornhaber and Wake 81
  3.3.3 Motivation 81
    3.3.3.1 Attributes, motives and types - Langan-Fox and Roth 82
  3.3.4 Personality characteristics 83
    3.3.4.1 Key Personal Qualities - Durham University Business School 84
  3.3.5 Behaviour and Attitude 85
    3.3.5.1 Behaviour - Boshoff and Bennet 85
    3.3.5.2 Behaviour - Johnson and Ma 85
3.3.5.3 Attitudes - Boshoff and Scholtz 86
3.3.5.4 The Attitude Approach to predicting Entrepreneurship
- Robinson, Stimpson, Huefner and Hunt 87

3.3.6 Competencies 89
3.3.7 Enterprise competencies 89
3.3.8 Entrepreneurship theory 95
3.3.8 Conclusion 98

3.4 MEASURING ENTREPRENEURSHIP 99
3.4.1 Introduction 99
3.4.2 General measuring instruments - suitable for identifying entrepreneurship
3.4.2.1 Interviewing 100
3.4.2.2 Questionnaires 106
3.4.2.3 Using both the critical interview technique and questionnaires/
paper-and -pen techniques 114
3.4.2.4 An entrepreneurship Game/ Virtual Reality 120
3.4.3 Traditional measuring instruments - school specific 123
3.4.3.1 Self-Directed Search (SDS) - J.L. Holland’s Occupational
Choice Theory 123
3.4.3.2 Jung Personality Questionnaire (JPO) - Jung’s Personality
Typology and Jungian Psychology and Vocational Choice 126
3.4.4 Conclusion 129

3.5 SUMMARY 130

CHAPTER 4: EMPIRICAL RESEARCH METHODS USED TO IDENTIFY
ENTREPRENEURIAL ATTITUDE

4.1 INTRODUCTION 132

4.2 AIMS AND OBJECTIVES OF THE RESEARCH DESIGN 132
4.2.1 Primary Aim 132
4.2.2 Secondary Aim 132
4.2.3 Tertiary Aim 133

4.3 DEMARCATION OF THE PROBLEM 133
4.3.1 General problem 133
4.3.2 Hypotheses 133
4.3.3 Specific problems 134
4.4 RESEARCH METHOD

4.5 INSTRUMENT OF ASSESSMENT
4.5.1 The questionnaire
4.5.2 The General Enterprising Tendencies Test (GET)
   4.5.2.1 Background
   4.5.2.2 Description of the test
   4.5.2.3 Scoring and interpretation

4.6 PLANNED COURSE OF THE RESEARCH INVESTIGATION

4.7 SUMMARY/ CONCLUSION

CHAPTER 5: EMPIRICAL FINDINGS RELATED TO IDENTIFYING
ENTREPRENEURIAL ATTITUDE AND RAISING
AWARENESS OF ENTREPRENEURSHIP AS
A CAREER OPTION

5.1 INTRODUCTION
5.1.1 Statistical computer program
5.1.2 Descriptive statistics
   5.1.2.1 Frequency distributions
   5.1.2.2 Cross tabulations
   5.1.2.3 Measuring central tendency
   5.1.2.4 The Pearson Chi - Square

5.2 COMPOSITION OF THE QUESTIONNAIRE USED IN THIS STUDY
5.2.1 Additional sections
   5.2.1.1 Section A: Instructions
   5.2.1.2 Section B: Personal Information
   5.2.1.3 Section C: The GET Questionnaire
5.2.2 Exposition of results

5.3 LEVELS OF ENTREPRENEURIAL ATTITUDE
5.3.1 Introduction
5.3.2 Interpretation
5.3.3 Comments
5.3.4 Entrepreneurial attitudes vs. enterprising career choice
   5.3.4.1 Interpretation
   5.3.4.2 Comments
5.3.5 Entrepreneurial attitude vs. generating one’s own income
5.3.5.1 Interpretation 158
5.3.5.2 Comments 158

5.3.6 Entrepreneurial attitude vs. expectation to find employment
5.3.6.1 Interpretation 159
5.3.6.2 Comments 159

5.3.7 Entrepreneurial attitude vs. a clear idea of career choice
5.3.7.1 Interpretation 161
5.3.7.2 Comments 161

5.3.8 Entrepreneurial attitude vs. knowing someone who started their own business or who is a business person
5.3.8.1 Interpretation 162
5.3.8.2 Comments 162

5.3.9 Entrepreneurial attitude vs. language
5.3.9.1 Interpretation 163
5.3.9.2 Comments 164

5.3.10 Entrepreneurial attitude vs. family structure
5.3.10.1 Interpretation 164
5.3.10.2 Comments 165

5.3.11 Summary: Levels of entrepreneurial attitude 165

5.4 EXPOSURE TO ECONOMIC EDUCATION AND/ OR ENTREPRENEURIAL TRAINING 167
5.4.1 Introduction 167
5.4.2 Interpretation 167
5.4.3 Comments 168

5.4.4 Exposure to economic education and entrepreneurial training vs. entrepreneurial attitude
5.4.4.1 Interpretation 169
5.4.4.2 Comments 170

5.4.5 Exposure to entrepreneurial education vs. career choices
5.4.5.1 Interpretation 171
5.4.5.2 Comments 172

5.4.6 Summary: Exposure to economic education and/ or entrepreneurial training 173

5.5 GENERAL CAREER CHOICES 173
5.5.1 Introduction 173
5.5.2 Interpretation 174
5.5.3 Comments 175
5.5.4 Clear idea of career choice 175
5.5.4.1 Interpretation 175
5.5.4.2 Comments 176
5.5.5 Having a clear idea about future plans vs. career choices 176
  5.5.5.1 Interpretation 176
  5.5.5.2 Comments 177
5.5.6 Expecting to find employment vs. career choices 178
  5.5.6.1 Interpretation 178
  5.5.6.2 Comments 179
5.5.7 Knowing someone who started their own business vs. career choices 179
  5.5.7.1 Interpretation 179
  5.5.7.2 Comments 180
5.5.8 Language vs. enterprising career option 180
  5.5.8.1 Interpretation 180
  5.5.8.2 Comments 181
5.5.9 Summary: General career choices 181

5.6 EXPECTATIONS IN FINDING EMPLOYMENT 182
  5.6.1 Introduction 182
  5.6.2 Interpretation 182
  5.6.3 Comments 182
5.6.4 Language vs. expectations of finding employment 183
  5.6.4.1 Interpretation 183
  5.6.4.2 Comments 183
5.6.5 Gender vs. expectations to find employment 184
  5.6.5.1 Interpretation 184
  5.6.5.2 Comments 184
5.6.6 Summary: Expectations to find employment 185

5.7 WILLINGNESS TO GENERATE OWN INCOME OR START A BUSINESS 185
  5.7.1 Introduction 185
  5.7.2 Interpretation 186
  5.7.3 Comments 186
5.7.4 Knowing people who started their own businesses 186
  5.7.4.1 Interpretation 186
  5.7.4.2 Comments 187
5.7.5 Knowing someone who started their own business vs. consider generating one’s own income 187
  5.7.5.1 Interpretation 187
  5.7.5.2 Comments 188
5.7.6 Expecting to find employment vs. considering to generate one’s own income 188
  5.7.6.1 Interpretation 188
  5.7.6.2 Comments 189
CHAPTER 6: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

6.2 AIMS OF THE STUDY

6.3 RESEARCH METHOD

6.3.1 A literature study

6.3.2 An empirical research

6.4 FINDINGS

6.4.1 Findings from the literature study

6.4.2 Findings from the empirical investigation

6.4.2.1 On identifying entrepreneurial attitude

6.4.2.2 On raising awareness of entrepreneurship as a career option

6.4.2.3 On additional information from the GET

6.5 CONCLUSIONS

6.5.1 Conclusions from the literature study

6.5.2 Conclusions from the empirical investigation

6.5.2.1 Testing the hypotheses

6.5.2.2 Conclusions to the findings of the GET

6.6 LIMITATIONS OF THE INVESTIGATION

6.7 RECOMMENDATIONS FOR FURTHER INVESTIGATION

6.8 IN CONCLUSION
# BIBLIOGRAPHY

# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 2.1</td>
<td>A brief summary of entrepreneurial characteristics</td>
<td>37</td>
</tr>
<tr>
<td>Table 2.2</td>
<td>Competencies which are more characteristic of successful than average entrepreneurs in India, Malawi, and Ecuador</td>
<td>61</td>
</tr>
<tr>
<td>Table 2.3</td>
<td>Competencies which are not more characteristic of successful than average entrepreneurs in India, Malawi, and Ecuador</td>
<td>62</td>
</tr>
<tr>
<td>Table 3.1</td>
<td>Behaviour attributes measured by Lau entrepreneurial behaviour questionnaire</td>
<td>109</td>
</tr>
<tr>
<td>Table 4.1</td>
<td>Key to various sections on entrepreneurial attitude</td>
<td>139</td>
</tr>
<tr>
<td>Table 4.2</td>
<td>Entrepreneurial categories/attitudes and respective qualities</td>
<td>141</td>
</tr>
<tr>
<td>Table 5.1</td>
<td>General maximum values for the various sections/categories</td>
<td>154</td>
</tr>
<tr>
<td>Table 5.2</td>
<td>Means of categories as per South African sample</td>
<td>154</td>
</tr>
<tr>
<td>Table 5.3</td>
<td>Average scores of schools compared to the five categories</td>
<td>155</td>
</tr>
<tr>
<td>Table 5.4</td>
<td>Scores for entrepreneurial attitudes and interest in enterprising career choice</td>
<td>157</td>
</tr>
<tr>
<td>Table 5.5</td>
<td>High scores for entrepreneurial attitudes vs. Generating one's own income</td>
<td>158</td>
</tr>
<tr>
<td>Table 5.6</td>
<td>Expectation to find employment vs. High scores for entrepreneurial attitude</td>
<td>159</td>
</tr>
<tr>
<td>Table 5.7</td>
<td>A clear idea of career choice vs. high scores for entrepreneurial attitude</td>
<td>161</td>
</tr>
<tr>
<td>Table 5.8</td>
<td>Knowing someone who has a business vs. high scores for entrepreneurial attitude</td>
<td>162</td>
</tr>
<tr>
<td>Table 5.9</td>
<td>Home language vs. High scores for entrepreneurial attitude</td>
<td>163</td>
</tr>
<tr>
<td>Table 5.10</td>
<td>High scores for entrepreneurial attitude vs family structure</td>
<td>165</td>
</tr>
<tr>
<td>Table 5.11</td>
<td>Frequency and percentages of learners exposed to entrepreneurial education</td>
<td>168</td>
</tr>
<tr>
<td>Table 5.12</td>
<td>Percentages of learners exposed to entrepreneurial education vs. High scores on entrepreneurial attitude</td>
<td>169</td>
</tr>
<tr>
<td>Table 5.13</td>
<td>Percentages of learners exposed to entrepreneurial education, showing high interest in career options</td>
<td>171</td>
</tr>
</tbody>
</table>
Table 5.14 A clear idea about future career choices vs. High interest in career options 176
Table 5.15 Expecting to find employment vs. High interest in career options 178
Table 5.16 Knowing someone who started their own business vs. High interest in career options 179
Table 5.17 Percentages of learners in various language groups, expecting to find employment 183
Table 5.18 Percentages: Knowing people who started own business - Consider generating own income 187
Table 5.19 Percentages: Expecting to find employment - Consider generating their own income 188

LIST OF FIGURES

Figure 1 A framework for identifying enterprise competency 94
Figure 2 Holland’s six types of personality and work environments 124
Figure 3 Levels of interest in Holland’s six career options (in percentages) 174

APPENDIXES

Appendix A GET (General Enterprising Tendencies test) 223
CHAPTER 1

GENERAL ORIENTATION, BACKGROUND TO AND STATEMENT OF THE PROBLEM.

1.1 INTRODUCTION

The critical shortage of job opportunities in the formal sector is a painful reality for every school leaver, graduate and person who has completed a diploma or any kind of tertiary education. Because of this shortage, entrepreneurship was viewed with growing interest initially, and cultivated ever since, as a possible job option in many economies.

Internationally entrepreneurship is deemed to be of vital importance for economic development and growth. Hornaday (1992:12) indicated that, from an economics point of view, the failure of Soviet-style central planning in Europe and the desperate desire for economic growth among developing countries have placed the spotlight squarely on entrepreneurship as a major factor in the success of capitalist economies. If one wants entrepreneurship to be considered as a potential career or job option, one has to raise the awareness of entrepreneurial qualities already present in society in general and in learners in particular. In order to do so, entrepreneurship must be distinguished from other concepts such as psychological traits and economics, and afforded its rightful place.

Third World policy makers are especially interested in entrepreneurship and its noticeable economic impact on developing societies. They view entrepreneurship, small business venturing and job creation as counterbalancing the high unemployment, slow economic growth and high birth rates prevailing in many Third World countries (Boshoff, Bennett and Owusu 1992: 48).
Entrepreneurship is currently quite fashionable in the United States. Zogblin (1989:80) predicted "a golden age of entrepreneurship ... present-day entrepreneurs have the skills and funding that entrepreneurs of decades past could only dream about. Just as important, becoming an entrepreneur has become an acceptable alternative to working for a corporation. Entrepreneurs are the new American heroes. Magazines are developed for their exploits. Books are written for their benefit. Society applauds their initiative and independence..."

In South Africa one is also confronted with this attitude in every newspaper and business magazine. Government and the business sector are acutely aware of the need that exists for entrepreneurial activity in the South African economy. However, it is not an attitude prevalent in the minds of most of the South African learners and students at tertiary institutions. Neither is it to be found in most teachers and parents.

1.2 AWARENESS OF THE PROBLEM

When the researcher worked at the Department of Labour, Pietermaritzburg, she became aware of the plight of school leavers. Finding a job, any job, is the aim of almost every school leaver. Yet, very few employers are interested in employing a work seeker who has just completed *his/her secondary education and who has no working experience. Although there is an even larger group of work seekers who are more mature, but just as inexperienced as far as the labour market is concerned, that larger group is not the focal point of this research. In the face of the severe shortage of employment for many young work seekers and/or school leavers, the matter of training people in how to generate their own income and how to start their own businesses came up regularly.

*Footnote: The use of gender pronouns in a written document like this one poses various problems, consistency being one of them. Using he/she became cumbersome when writing this document. The researcher, therefore, decided to adopt the traditional way of using the masculine. This decision does not imply the exclusion of females from entrepreneurship, neither does it indicate a sexist bias. This researcher sincerely apologises to anyone who might be offended by this decision.
This issue assumed such proportions that a member of the Development Committee at the local Chamber of Commerce and Industry remarked at a meeting that, if anyone really wanted to make a contribution in the field of job creation, such person should develop an instrument that could identify school leavers with entrepreneurial abilities. On many occasions people have been arbitrarily identified as entrepreneurs, trained, and then they could not succeed in creating new businesses.

While the researcher worked at the Department of Labour she conducted short one-day workshops with unemployed work seekers as well as school leavers and graduates, and she found that an extremely small percentage of these groups was actually interested in or had considered starting their own businesses. From that small group of interested individuals an even smaller percentage was aware of the possibility that they might have any of the necessary entrepreneurial characteristics, regarded themselves as entrepreneurs and were therefore willing to take the risks involved in venturing into this avenue.

Almost 90% of matriculants (Forgey, Jeffery, Sidiropoulos, Smith, Corrigan, Mphuthing, Helman, Redpath, and Dimant 1999:307) who pass will probably not find employment within the first year after completing their schooling. Raising awareness by increasing their level of self-knowledge about entrepreneurship as a possible career option could be to their advantage. This could assist in terms of planning for an almost unavoidable period of unemployment and considering the possibility of attempting to generate their own income.

Being interested in entrepreneurship and also being acutely aware of the lack of employment opportunities for school leavers in the formal sector, the researcher often talks to educators and learners about entrepreneurship and generating one’s own income as well as enquiring about entrepreneurial attitude and activities within the schools these educators and learners are from. The researcher found that in a number of primary and secondary schools learners participate in entrepreneurial activities during school hours. The puzzling observation is that some are successful, while others fail dismally. During a conversation with the principal of Wykeham Collegiate, a local independent girls high school in Pietermaritzburg, KwaZulu-Natal, it transpired that the school had
been active in instilling entrepreneurial skills in its learners for the past fourteen years. The principal stated that educators at Wykeham had realised through the years that true entrepreneurs were scarce. The school's focus, therefore, has been on developing an entrepreneurial attitude more than on entrepreneurship per se.

1.3 ANALYSIS OF THE PROBLEM

Having worked as a placement officer and career counsellor at the Department of Labour from 1992 to 1998, the researcher was increasingly confronted with the ineffectiveness of career counselling as it has been practised up to that stage. As the researcher did the necessary assessment of school leavers and counselled them in terms of a career or suitability for a particular kind of job only, she was faced time and time again with the futility of this exercise as job opportunities became fewer and fewer, especially for young school leavers. The researcher changed her approach from focussing exclusively on career counselling to increasing self-knowledge, raising awareness of individual skills, personality characteristics, attitudes and attributes and how these could expand the possible career and job options when exploring different careers. The researcher's aim was that the young school leavers should come to know who they were, what skills and attributes they already possessed and how this self-knowledge could be used in order to raise their awareness of entrepreneurial attitude and entrepreneurship as a career option.

Raising awareness of entrepreneurship as a possible career option not only requires raising the level of awareness of entrepreneurial skills within the individual school leaver, but also instilling the business skills required to start and manage a business successfully. In order to make school leavers aware of their level of enterprising and entrepreneurial competency, the need for a measuring instrument became apparent. The researcher found that the short pen and pencil questionnaires that often appear in popular magazines or as part of small workshops did not seem to be the answer to this need, as the information gained from them was insufficient, incomplete and downright confusing.
Through her exposure to the shortage of suitable employment for school leavers within the South African labour market, the researcher became convinced that entrepreneurship needs a much more elevated position as a possible career option within the education system in general and career education in particular. She arrived at the conclusion that entrepreneurs are found at all levels of society, even at school level nowadays, albeit in very small numbers. These entrepreneurs are either mature adults or youngsters. They all seem to have the following in common:

- entrepreneurial characteristics; and
- the necessary acquired skills;
- and they run a small business (Pahn 1993:3-4).

However, a number of them experience problems within these ventures. These problems are either that -

- the small business is not flourishing or growing;
- or that it has actually failed;
- or that there is no progress within the business (Pahn 1993:5).

This researcher concluded that the above entrepreneurs presented themselves as entrepreneurs, based on one or more of the following assumptions:

- They knew that they possessed the necessary entrepreneurial characteristics.
- They suspected that they possessed such qualities.
- They had to survive (in the open labour market in terms of subsistence economies) or were forced into making this choice (for example, at school, because everyone has to take part in such an activity.) (Pahn 1993:5-8.)

Returning to the entrepreneur and his small business, the question that now arises is what causes a business not to flourish, to fail or to fall flat. Two possible reasons are considered:

1. Aspects outside the person (external factors). For example, the entrepreneur requires support and/or guidance, such as financial advice, aftercare, follow-ups, business and management skills training.
2. Aspects within the person (internal factors). For example, certain entrepreneurial characteristics are not developed fully, such as the need for achievement, creativity, risk-taking strategies, internal locus of control and so forth.

If one considers the fact that every person needs some form of training in order to do his job, whether it is to dig a ditch or to plan a ten-day mission into space on board a NASA space shuttle, this applies to a prospective entrepreneur as well. Van Aarde and Van Aarde (1997:191) pointed out that the high failure rate of small businesses is avoidable. There are worthwhile lessons on how to run a business successfully to be learned by prospective entrepreneurs from seasoned entrepreneurs.

The impact of external factors can be addressed by referring the person or school leaver to a consultant or to a support group where his particular problem could be addressed and possibly be sorted out. Keeping in mind that entrepreneurship skills can be taught (Van Aarde and Van Aarde 1997:191), failure in creating, setting up and running businesses can be avoided. Teaching prospective school leavers and/or entrepreneurs the necessary management skills beforehand will allow them to manage a growing business effectively. A possible business survival strategy curriculum would include the following training (Van Aarde and Van Aarde 1997:196-197):

- improving management skills;
- ensuring good record-keeping;
- ensuring good cash-flow management;
- formulating a marketing strategy and carrying out market research and market analyses;
- good planning to ensure business success;
- ensuring accurate price-setting and costing;
- ensuring good management of human resources; and
- a personal development plan for the entrepreneur (changing of roles).

However, as far as internal factors are concerned, the following questions arise:

1. Could it be that school leavers and/or entrepreneurs do not identify themselves with being business people? With being in control of an own business? With being an “entrepreneur”?
2. Could it be that such a learner or school leaver does not experience as part of himself the awareness of “I am an entrepreneur/a business person/an employer” as opposed to “I am an employee”?

3. How would one determine which enterprising and entrepreneurial characteristics were not developed sufficiently within a learner/school leaver?

4. Why would one determine this? Could one educate or train a learner to be more entrepreneurial and enterprising, even from an early age, in order for these characteristics to be developed effectively in a business sense?

5. What exactly are these entrepreneurial characteristics and how does one define them? (Profile of an entrepreneur.)

6. What instruments exist with which these characteristics as well as their level of competency (highly or poorly developed) could be measured or identified?

7. How could these characteristics be developed further? (Aid programme.)

One would like to reach a point at which a learner-entrepreneur, whose business is not prospering and in whose case all possible external factors have already been addressed, could be supported, assisted and/or referred in order to examine the possible internal factors and to identify shortfalls, and possibly clear, rectify and/or develop those within the framework of educational psychology, counselling psychology, education and training. Having a measuring instrument to determine these characteristics, attitudes and attributes and their level of development would assist any person or organisation involved in entrepreneurial or enterprising competency training. Such an instrument should also increase a person’s self-awareness regarding the issues that are measured.

Dr D. Wolmarans of the Foundation of Entrepreneurial Development in Durban, as well as McClelland (1987:229-231), alleged that every single person is born with entrepreneurial abilities. These need to be developed, and if they are not, they remain dormant in each person. Recent research into perspectives on entrepreneurship (Donckels and Miettinen 1990:39-40) confirmed the arguments that:
The personal attributes assigned to the entrepreneur, which are seen as a set of enterprising competencies, represent an image which could be recognised and identified in every person. As personal characteristics they can be exercised in any context other than business and with the same degree of success.

These competencies, however, could be developed by circumstances. Opportunity as well as threat might lead to the putting into operation of entrepreneurial behaviour.

From the above research finding it follows that every person possesses entrepreneurial attributes which could form the foundation of possible new venture creation. However, one needs to establish the level of proficiency to which these attributes have been cultivated and bring this to the attention of the person or persons concerned. The purpose of this would be to increase the learner’s or school leaver’s awareness of the potential of entrepreneurship as a possible career choice (Kent 1990;19).

Because of the growing level of unemployment, and particularly amongst school leavers and graduates, avenues other than formal employment need to be investigated. The emphasis at school should already have moved from vocational guidance to career education. This means that school leavers, when they leave school, should have acquired relative competency in terms of appropriate ways of thinking about the changing society they are living in, the tasks they need to accomplish within this society, which have also changed, and their role in this society (Raven 1984:7).

The researcher, at this stage, is of the opinion that one should also investigate the issue of enterprise competence or competence per se, in addition to focussing on entrepreneurship. Entrepreneurship, as it presents itself in the population at present, is available to too small a percentage of society for it to make any significant difference in terms of job creation. In order to identify potential entrepreneurs and to raise the awareness of potential school leavers of entrepreneurship as a prospective career path or choice, the researcher has become aware of the need for and will be working towards applying some form of measuring instrument within the context of this study, which should:
be an indicator and motivator to the testee in becoming aware of his own enterprising competency and subsequent entrepreneurial attributes; indicate to educators, trainers, financial institutions and even employers, the level of enterprising competency/entrepreneurial attitude of learners, school leavers, trainees, prospective small business owners and employees; and be at such a level that users do not necessarily have to be experts or psychometrists in order to use the instrument and gain relevant information from it.

1.4  PROBLEM FORMULATION/ HYPOTHESIS OF THE STUDY

1.4.1  General problem

How useful and practical are the measuring instruments that have been and are being used to identify entrepreneurial attitude, and will those measuring instruments raise the awareness of entrepreneurship as a career option in a secondary school set-up?

The following hypotheses will be tested:

Hypothesis One: There is a significant difference between grade 11 learners who have been exposed to Economic Education and/or Entrepreneurship Training and those learners who have not been exposed to this within the school curriculum.

Hypothesis Two: Awareness of entrepreneurship as a possible career choice has been raised significantly due to unemployment.

Hypothesis Three: There is a significant dependence between the entrepreneurial attitudes of grade 11 learners and the enterprising work environment as a career option indicated by these learners.
1.4.2 Specific problems

The researcher also needs to address the following:

- What is entrepreneurial attitude?
- How do entrepreneurship, entrepreneurial attitude and who the entrepreneur is, fit together? (The relationship of entrepreneurial attitude and entrepreneurship.)
- What selection criteria have been used to identify entrepreneurship, entrepreneurial attitude and who the entrepreneur is?

1.5 AIM(S) WITH THE STUDY

1.5.1 Primary aim

This study aims to identify a measuring instrument that is practical, useful, relatively simple to apply and interpret by educators and school counsellors in South Africa, and that will increase awareness of entrepreneurial attitude and/or entrepreneurship as a career option.

1.5.2 Secondary aim

The secondary aim with the study is to identify and discuss what constitutes an entrepreneur in general and in the South African context in particular. Profiling an entrepreneur will assist in determining whether a learner or school leaver has what it takes to become an entrepreneur, and to what level of proficiency these attributes are available.
1.5.3 Tertiary aim

The study also aims at determining what entrepreneurship and entrepreneurial attitude are and how these contribute to who the entrepreneur is.

Attempts will be made to determine who an enterprising person is and where such a person fits into the concept of entrepreneurship. This study will also look at what enterprise competency is and whether and how this concept contributes towards entrepreneurship.

1.6 RESEARCH METHODOLOGY

The method of this research is dichotomous:

1.6.1 Literature study

The literature study will investigate the following:

- The concepts of entrepreneur, entrepreneurship, entrepreneurial attitude and various models on the development of these concepts as well as isolating a short-list of entrepreneurial traits common to entrepreneurs. This will be done in order to define the major concepts upon which this study is based.
- The factors influencing entrepreneurship as well as measuring instruments used for identifying entrepreneurs.

1.6.2 Empirical investigation

An empirical investigation will be done, based on quantitative principles, in order to achieve the already mentioned aims of the study. A questionnaire (the GET: General Enterprising Tendencies test) will be administered in an attempt to identify entrepreneurial attributes and attitudes. The data will be statistically interpreted in order to test the hypotheses.
1.7 DEMARCATION AND LIMITATION OF STUDY

This study will focus on the prospective school leaver, here deemed the grade 11 learner, as, in the first place, the educational programmes of grade 12 learners are too busy to be interrupted by activities other than academic activities. Secondly, grade 11 does serve as the foundation upon which grade 12 is based.

Grade 11 learners from three secondary schools will be involved in this study. The schools concerned will be:

- One urban technical school.
- One semi-rural co-ed school.
- One semi-rural technical school.

This study will take place within the Pietermaritzburg city limits. The questionnaire will be is set in English only, and as the study will be confined to the Pietermaritzburg city limits, the researcher believes that the largest percentage of testees/grade 11 learners are relatively competent English second language users and will be able to manage the questionnaire fairly easily.

1.8 DEFINITIONS OF CONCEPTS OR TERMS

Traditionally this is the section of the first chapter where major concepts are identified, accurately defined and definitions interpreted. However, the main focus of Chapter 2 is to define entrepreneurship, entrepreneurial attitude and who the entrepreneur is. These are the major concepts of this study. Interpretations of the above concepts are provided in Chapter 2 as well, under the headings of “Definitions of an entrepreneur”, “Definitions of entrepreneurship” and “Entrepreneurial attitude and process”.

For the purpose of this particular part of Chapter 1, terms are defined, although the definitions used are purely linguistic as they are found in the Concise Oxford Dictionary (Fowler and Fowler 1973). Concepts that are defined are the following: Entrepreneur; entrepreneurial attitude; entrepreneurial attributes; entrepreneurship; identify; relationship.

**Entrepreneur:** The Concise Oxford Dictionary (Fowler and Fowler 1973:406) defines an entrepreneur as a “person in effective control of a commercial undertaking; a contractor acting as an intermediary”.

Until the necessary literature study has been completed and the concept properly defined, an entrepreneur is considered to be any person generating his own income or starting and/or running his own business.

**Entrepreneurial attitude:** The term “attitude” is defined in the Concise Oxford Dictionary (Fowler and Fowler 1973:75) as “disposition of figure (in a painting, etc); posture of body (theatrically); settled behaviour (opinion); settled mode of thinking”.

Entrepreneurial attitude refers to consistent behaviour and thinking, which are in line with creating and running a business.

**Entrepreneurial attributes:** The term “attribute” is defined as a “quality ascribed to anything; material object recognised as appropriate to person/office; characteristic quality”. (Fowler and Fowler 1973:75.)

Entrepreneurial attributes refer to qualities, characteristics, traits, or skills associated with persons initiating and managing their own businesses.
Entrepreneurship: The suffix “-ship” is defined in the Concise Oxford Dictionary (1973:1174), when used together with another suitable noun such as “apprentice”, as “a living suffix; meaning, (1) being so-and-so, status, office, honour, (2) tenure or office; (3) skill in certain capacity”.

Entrepreneurship therefore refers to a particular mode of existence in the labour market, such as being involved in the process of creating and managing one’s own business.

Identify: The Concise Oxford Dictionary (Fowler and Fowler 1973:601) defines this term as a way to “treat (thing) as identical (with); associate one self inseparably with (party, policy, etc.); establish identity of”.

“To identify” refers, for the purpose of this study, to attempts to determine the identity of the entrepreneur. By establishing such a person’s identity, a profile could be drawn up by which other potential entrepreneurs could be recognised.

Relationship: The word “relation” is defined in the Concise Oxford Dictionary (Fowler and Fowler 1973:1046) as “what one person or thing has to do with another, way in which one stands or is related to another, kind of connection or correspondence or contrast or feeling that prevails between persons or things”. Adding the suffix “-ship” indicates a kinship between two persons or things.

“Relationship”, in the case of this study, points towards that which connects entrepreneurial attitude and entrepreneurship.

1.9 PROGRAMME OF STUDY

Chapter 1 is an introductory orientation to the study, covering the problem formulation, the aim/aims with the study and the content of each chapter very briefly.
Chapter 2 covers that which constitutes an entrepreneur, entrepreneurship, entrepreneurial attitude in general and in the South African context specifically. This chapter also covers different types of entrepreneurs as well as other theories and models that have been developed around the above concepts.

Chapter 3 covers factors influencing entrepreneurship, as well as the issue of selection criteria, the availability thereof within and outside the South African context, as well as the matter of validity as has been found in the literature. Traditional measuring instruments being used in the educational system in South Africa are also included in this investigation.

Chapter 4 is devoted to research methodology and research methods and justification for their use. Chapter 5 entails statistical analyses of the research data, as well as an interpretation and discussion of the data presented.

Chapter 6 concludes the study with a summary, conclusion and recommendations for future research.

1.10 CONCLUSION

Entrepreneurship and self-employment constitute a relatively unexplored field in the South African context. In the educational setup specifically, as well as in the raising of children in general, the skills required to prepare learners for entrepreneurship and self-employment are not being taught. If it is true that most people possess entrepreneurial traits, such people need to be made aware of these traits in order for them to take the next step, which is to develop these traits. To identify entrepreneurship and entrepreneurial traits, time will be spent in the next chapter on defining entrepreneurship, entrepreneurial attitude and who the entrepreneur is. The historical progress of various approaches to these concepts will also be considered, and finally an overview will be done on theories and frameworks that have been developed around entrepreneurship, entrepreneurial attitude and the entrepreneur.
CHAPTER 2

ENTREPRENEUR, ENTREPRENEURSHIP, ENTREPRENEURIAL ATTITUDE.

2.1  INTRODUCTION

Numerous attempts have been made and will still be made to define the concepts of entrepreneur and entrepreneurship. Many definitions have been formulated and a wide field has been covered by the different definitions. This chapter will examine various views and definitions of an entrepreneur in particular. Attempts will be made to define entrepreneurship, touching briefly on the elements of entrepreneurship. The entrepreneurial process and entrepreneurial attitudes as well as views, theories and frameworks which were found in literature viewing the phenomenon of “entrepreneurship” from different angles will also be investigated. The characteristics that entrepreneurs seem to have in common will be indicated. Entrepreneurs will be categorised in terms of the sphere of society where they operate.

2.2  DEFINITIONS OF AN ENTREPRENEUR AND ENTREPRENEURSHIP

2.2.1  Introduction

When one looks at the literature that is available on the topic of who an entrepreneur is, one finds that researchers do not agree about who or what this person is. This makes it difficult to formulate an acceptable definition.

There seems to be a progression in the attempts to define the entrepreneur, from initially finding out and trying to capture who exactly the entrepreneur is, by setting up a variety of definitions, to focussing on what this person does in order to activate the process of entrepreneurship - a shift from
the person to the process. A study of the processes an entrepreneur is involved in, lends itself to yet another attempt at a panacea of definitions.

De Bono (1994:78) suggested that a definition should be a cluster of attributes. Using his suggestion as a point of departure, one might be able to formulate a definition that describes the unusual and elusive phenomenon of "the entrepreneur." This researcher will attempt to define the entrepreneur and entrepreneurship from this point of view.

2.2.2 The origins of the word "entrepreneur"

The word "entrepreneur" had been used in Europe since the fifteenth century, to describe people who were enterprising, who exercised leadership and who took risks. These people were not necessarily economically active. The word "entrepreneur" was derived from the French word "entreprendre", which means "to undertake; to embark on". French economists, however, referred to an "entrepreneur" as a person who purchased goods at a specific price, not knowing what the selling price would be (Jooste 1983:18).

Schloss (1968:229) also traced the origin of the word "enterprise" as the primary word that gave rise to the term "entrepreneur" in the fifteenth century. It was defined as "an attempt to run the risk of [something]..."

Initially, an entrepreneur was deemed to be a person involved in any enterprising activity, not necessarily limited to buying and selling. The term entrepreneur is currently the internationally accepted designation for persons involved in enterprising activities (Jooste 1983:4).

2.2.3 Defining an entrepreneur

Entrepreneurship researchers, entrepreneurial management, economists and everyday users of the term seem not to agree on the question of who the entrepreneur is or what he does (Herron
1994:18). Jooste (1983:4-5) pointed out that attempts at defining an entrepreneur over the decades contained references to:

- risk-taking propensity;
- the process of production;
- being creative and contributing to economic progress; and
- profit-making and managerial activities.

This is also the reference structure used by this researcher when looking at the large number of varying definitions found in the literature. However, most of the definitions cover more than one aspect of the entrepreneur’s attributes, which complicates this researcher’s attempts to place definitions under specific references. The reader will, therefore, probably come across definitions which might fit better under another reference. This problem underlines the fact that agreement on who the entrepreneur is has not yet been reached, even after many decades of research into this phenomenon.

2.2.3.1 Innovative risk-taking

Innovative risk-taking implies an individual cognitive style, which requires problems and their solutions to be approached in a new and less acceptable way, that is, innovatively. Decisions are made within an unusual and uncertain environment, and this implies carrying the risks that are involved in such a process.

Donckels and Miettinen (1990) stated that, to a varying degree, emphasis is placed on the entrepreneur as (a) the innovator, (b) the bringer together of resources, (c) the organiser of production, and (d) the risk-taker.

Beyers (1988:11) indicated that an entrepreneur is someone who shoulders the burden of personal risk when starting a business venture. He quoted Bannock, Baxter and Rees (1972:141) to prove his point that an entrepreneur is "the name given in economic theory to the owner-manager of a firm."
The functions of the entrepreneur are to: (a) supply the CAPITAL of the firm; (b) organize production by buying and combining INPUTS; (c) decide on the rate of OUTPUT; and (d) bear the RISK involved in these activities."

Schumpeter (in Leibenstein, 1987:193) viewed the entrepreneur as "the instrument of change, the agent who introduces various types of innovations: new products, new ways of manufacturing, new sales techniques, new types of equipment, or any novelty introduced into the system. Thus, the entrepreneur is the agent who ‘upsets’ the existing equilibrium."

Hisrich (1986:8-16) developed a working definition of an entrepreneur, stating that an entrepreneur is "an innovative person who creates something difficult with value (added) by devoting time and effort, assuming the ... financial, psychological and social risks ... in an action-orientated perspective ... and receiving the resulting awards (and punishments) of monetary and personal satisfaction."

According to Taylor and Leppit (in Jooste 1983:5) an entrepreneur is "an individual who perceives an opportunity, organises an economic activity, takes risks, strives for profits, constantly and tirelessly straggles to achieve progressively higher standards of excellence, innovates, is highly ‘achievement motivated’ and is very often a ‘social deviant’."

The five definitions quoted above indicate that, although innovative risk-taking is an essential component of the make-up of an entrepreneur, this is not the only activity entrepreneurs are involved in. It should be noted that the process of production was either mentioned or implied in each of these definitions.

2.2.3.2 Production processing

Manufacturing processes involve the production of products as well as the structuring of the manufacturing processes. The production of a product, whether or not a product will be manufactured as a complete unit in the factory in question, how much out-sourcing will be done: all
these activities and functions are driven by one or more individuals. The production process is merely one link in a chain of events in the entrepreneurial process.

Donckels and Miettinen (1990) proved this point when he stated that an entrepreneur is a person who organises and manages a business and who is a factor of production.

Peterson (1981:67) linked production processing with the entrepreneur when he stated that "...individuals are entrepreneurs only when and in so far as they carry out what is in their experience a new combination of existing elements of production."

At this very early stage of this investigation, it has already become clear that the entrepreneur seems to be an individual exposed to multi-faceted activities and possessing multi-faceted attributes and skills.

Higgins (1959:203) pointed out the almost unorganised nature of the individual practising entrepreneurship: "The key figure in the process of technological advance is the entrepreneur. He is the man who sees the opportunity for introducing the new commodity, technique, raw material, or machine, and brings together the necessary capital, management, labour, and materials to do it. He may not be, and historically has usually not been, the scientific inventor; his skills are less scientific than organisational. His skills are also different from those of the salaried manager, who takes over an enterprise after it has been launched."

Developing a mold into which prospective entrepreneurs should fit, may not be the correct thing to do when one tries to identify who the entrepreneur is. Many demands are made on the individual called the entrepreneur. He needs to be creative enough not only to see a gap in the market but also to also find ways to fill that gap (Van Aarde and Van Aarde 1997:19).
2.2.3.3 Creativity contributing to economic progress

Being creative within an economic set-up requires the individual to move through a particular process. He also needs to be sensitive to imbalances, problems and gaps in knowledge, and needs to search for solutions. These solutions and options are investigated and the consequences are considered in an ongoing process. The entrepreneur is required to think and act creatively throughout the life of his business. (Jalan and Kleiner 1995:20.)

Cuevas (1994:81) defined the entrepreneur “not as a passive figure who adapts to the re-equilibrating process … but … an active, creative factor within the economic process.” Though the entrepreneur might act as a manager at some stage, this is not his true entrepreneurial nature.

Kanter (1983:306) focussed on the entrepreneur’s creativity by describing the entrepreneur as a “change master”, and elaborated that: “They are literally the right people in the right place at the right time. The right people are the ones with the ideas that move beyond the organisation’s established practice. The right places are the interactive environments that support innovation, encourage the building of coalitions and teams to support and implement visions. The right times are those moments in the flow of organisational history when it is possible to reconstruct reality on the basis of accumulated innovations to shape a more productive and successful future.”

Ross (1987:78) stated that “a true entrepreneur is one who creates an ongoing entity out of nothing; … conceives a new business or shapes an ongoing one.” This person takes on the personal risk involved in new venture creation, braves the uncertainty and expresses degrees of creativity and innovation not learned in a classroom or from a book. In order to get things done, the entrepreneur just “slugs it out”!

Collins and Moore (1970:10) distinguished “between organisation builders who create new and independent firms and those who perform entrepreneurial functions within already established organisations”. Whether the process of creativity is performed by the entrepreneur or the intrapreneur
within an organisation, the fact remains that the creative intervention contributes to economic progress.

Leibenstein (1968:72-75) encapsulated the essence of the creative process by defining the entrepreneur within the phenomenon of entrepreneurship as: “... an individual or group of individuals with four major characteristics:

1. he connects different markets;
2. he is capable of making up for market deficiencies (gap-filling);
3. he is an 'input-completer'; and
4. he creates or expands time-binding, input-transforming entities, namely, firms.”

The profile of an entrepreneur will have to include the ability to solve problems and to make decisions in a creative manner. These are skills required throughout the entrepreneur’s involvement in all the stages of his business venture and contribute towards the making of profit.

2.2.3.4 Profit-making

In contrast to the fifteenth-century entrepreneur who was not necessarily economically active (see 2.2.2), the modern-day creator of new ventures has the making of a profit as one of his main objectives in starting his own business. This was supported by Sexton and Bowman-Upton (1991:11), when they stated that “entrepreneurs tend to be people who recognise business opportunities and marshal the necessary resources to exploit business opportunities for personal gain.”

Stated in general terms, the entrepreneur is defined as the person who “starts” and is successful in a venture and/or project that leads to profit (monetary or personal) or benefits society (Winslow and Solomon 1987:203-204).
Gilad (1984:159) identified and defined the entrepreneur as the person who acted in a particular way, based on a “hunch” that this would be the correct way to reap profit. He further proclaimed that a person “might possess a special knowledge about market conditions but if the individual is ‘hired’ for this knowledge rather than acting upon it himself, the person doing the hiring is the entrepreneur.”

The entrepreneur is also deemed to be a person who starts and manages a business for the major purposes of profit and growth. The entrepreneur is mainly characterised by innovative behaviour and will use strategic management practices in the business (Carland, Hoy, Boulton and Carland 1984:358).

Bosman (in Jooste 1983:5) viewed an entrepreneur as “an innovative person with a directed energetic drive with the objective of increasing economic wealth by being able to organise and control environmental variables, who moves in areas of uncertainty creating a risk taking environment and who is capable of coping with stress, strain and uncertainty.”

Pieters (in Jooste 1983:5) saw the entrepreneur as “a person with initiative, always on the lookout for economic opportunities, willing to risk his own capital, time, energy and reputation in order to make a profit.”

Profit-making is the principle aim of new venture creation. Whenever a person acts upon an opportunity in a creative and an innovative manner, he does this mainly because there is a profit to be made. The entrepreneur also applies his managerial skills to increase the growth of the business, primarily because growth implies further profit. Managing a business towards increased growth seems to be another of the essences of entrepreneurship.

2.2.3.5 Management or business management attributes

Management involves organising and running an organisation or a business. To create or own this organisation or business is not part of management. Managers are high-level employees and are not
closely identified with the owner of the organisation. Entrepreneurs create, organise and run private businesses (Megginson, Mosley and Pietri 1991:15). Their approach to management in general begins with recognising the business opportunity and culminates with exploiting the opportunity (Sexton and Bowman-Upton 1991:12). It is therefore also required of the entrepreneur to manage his business.

Kindleberger (1965:117) deemed the entrepreneur to be “the manager, the risk-taker, the decision-maker, the administrator, the boss.”

Draheim (1972:1) indicated that the founders of new businesses could be both the employees and the owners and that “their intention is for the business to grow and prosper beyond the self-employment stage.”

Brockhaus (1980b:510) wrote that “... an entrepreneur is defined as a major owner and manager of a business venture not employed elsewhere.”

Stevenson (1995:50) questioned the fact that entrepreneurs are born as such and that they are “risk takers.” He states that entrepreneurs use vision to exploit opportunities, and their success is determined by their ability to make life predictable for others (i.e. predicting the environment and creating predictability for the participants). "Without confidence in our ability to predict the consequences for ourselves, we don't take action." (Stevenson 1995:51). In order to build predictability, entrepreneurs -

- build a strong culture;
- stay attuned to the needs of their customers;
- build technological expertise;
- create understandable performance guidelines; and
- create employee involvement and empowerment (Stevenson 1995:51).
There is nothing the entrepreneur can not do if he gets a yes-answer to the question: "Am I making the world more or less predictable for those with whom I deal and whom I lead?" (Stevenson 1995:51.)

The entrepreneur seems to be a person who has mastered or needs to acquire a variety of essential skills. In the past, the community in general regarded entrepreneurs as "robber barons" who exploited their employees purely for their own gain. Their fellow-countrymen regarded them as "captains of industry", leading the development of their country's economy. Van Aarde and Van Aarde (1997:4) captured this discrepancy by stating that "in real life, very few entrepreneurs fit either description. In reality, they are rather people who, through hard work and long hours, generate business success."

Gartner (1988:11-22) pointed out that defining the entrepreneur as a set of characteristics and personality traits (the trait approach) has not adequately covered the essence of who an entrepreneur is. Gartner carefully researched the literature in which the trait approach was used to identify an entrepreneur. He published an extensive table covering various researchers' definitions of the entrepreneur. This exercise proved that the trait approach does not portray the big picture, but rather that -

- defining the entrepreneur is met with a myriad of viewpoints;
- very few researchers agree on the same definitions;
- selecting samples for research that were homogeneous did not take place in a homogeneous manner, but variations within samples were even more significant; and
- the profile of an entrepreneur indicates a person "larger than life, full of contradictions ...; someone so full of traits he would have to be a sort of generic 'Everyman'." (Gartner 1988:11.)

Gartner argues that "Who is an entrepreneur?" is the wrong question. Analysing the entrepreneur, viewing the entrepreneur's traits and characteristics as the key to understanding entrepreneurship and the entrepreneur as "causing" entrepreneurship, have proved inadequate in terms of exploring entrepreneurship. Entrepreneurs create organisations or businesses. Entrepreneurship is therefore
the creation of organisation. Studying a set of activities involved in creating a business implies a change towards a behavioural approach that might be more effective in addressing the phenomenon of entrepreneurship.

2.2.4 Elements of entrepreneurship

Smith (in Jooste 1983:5) researched historical as well as modern approaches to the entrepreneurial concept. He identified the following elements of entrepreneurship: risk-taking; the investment of capital; converting production factors into products; authority over elements of production; initiating economic progress; taking initiative; accepting uncertainty; receiving profit; innovation; creativity and managerial direction. Jooste (1983:5) pointed out that these elements are exhibited by almost all people in varying degrees. When the presence of these elements is so strong in a particular person that he or she initiates change, such as creating a new business, or behaves innovatively, creatively and takes initiative in a managerial or leadership capacity, this person should be regarded as an entrepreneur. Being an entrepreneur seems to be determined by what one does more than by what one is.

Jooste (1983:5-6) addressed the issue of distinguishing between an entrepreneur and a manager by pointing out the fact that these two roles are complementary to each other and interdependent within the economic process. The initial one-dimensional role of the entrepreneur and how this role evolved into a dynamic process of various interrelated relationships was confirmed by Brand (in Jooste 1983:6): “The 1960s formula was for the entrepreneur to start something, build it up, sell out and get out, and start the cycle again. The 1980s breed of entrepreneur tends to be part of an entrepreneurial team that sticks with the ship, and more importantly, keeps on innovating.”

Pottas (1981:247) highlighted the entrepreneurial process that the entrepreneur or initiator of a new business venture gets involved in. The entrepreneurial element within this process could roughly be divided into three phases:

- A first, preceding phase where activities such as collecting information, surveying the
environment, testing ideas and deciding to take the risk are prevalent.

- A second phase, where the venture is established and activities include obtaining capital, equipment and resources, and the organisation of processes and production.
- During the third phase the business has been securely established and activities revolve mainly around management.

In contrast to the manager, however, the entrepreneur sees the organisation as a living organism, an instrument with which to create new products, render new services or develop new markets (Smith, in Jooste 1983:6). One becomes aware of what the entrepreneur does - his activities and behaviour - and one is not so acutely aware of who he is. The focus seems to have moved from the entrepreneur to the process of entrepreneurship.

For the purpose of this study, an entrepreneur is seen as a person who has notable entrepreneurial elements, to the extent that they drive the creation of a new business. He dynamically initiates and participates in the entrepreneurial process throughout its various stages. The entrepreneur is a doer: who he is, has little impact on the process of entrepreneurship.

2.2.5 Defining entrepreneurship

Economic development, employment creation and entrepreneurship are mentioned simultaneously when referring to the continuing vitality of the market systems of both developing and developed countries. However, as Mahadea (1991:17) pointed out, no consensus has been reached regarding the conceptualisation of the term entrepreneurship. Kilby’s (1971:1) well-known comparison of this term to the legendary heffalump more or less summarises this dilemma: A heffalump is defined as being “... a large and important animal which has been hunted by many individuals using various ingenious trapping devices, but no one so far has succeeded in capturing him. All who claim to have caught sight of him report that he is enormous, but they disagree on his particularities” and “... the search goes on”.
Cantillon (1755, in Winslow and Solomon 1987:204) defined entrepreneurship as “self-employment of any sort.” As long as a person is not employed and paid a salary or wage, he is deemed an entrepreneur. He went as far as to state that “the Beggars and even the Robbers were Undertakers”. In the past, any person taking action towards generating an income was deemed entrepreneurial, irrespective of whether or not the action was lawful.

Views changed, however, and about one and a half centuries later an economist, Schumpeter (1934, 1947: 149-159), contributed one of the earliest perceptions of entrepreneurship, namely, that "entrepreneurship refers to a process, not a person." By implication he admitted that an entrepreneurial personality exists (Schumpeter 1947:153). Innovation, creativity and risk-taking have a role in the entrepreneurial process. Palmer (1971:32-39) strongly argued that “... the entrepreneurial function involves primarily risk measurement and risk taking in a business organization. Furthermore the successful entrepreneur is that individual who can correctly interpret the risk situation and then determine policies which will minimize the risk involved.”

A very specific process has now been identified. Attributes such as innovation, creativity and risk-taking are applied within the economic sphere, setting in motion the entrepreneurial process. Researchers have, however, not yet agreed about what entrepreneurship is. Cole (1946:4) illustrated the relative vagueness reflected when initial attempts were made to define entrepreneurship. Entrepreneurship, according to Cole, is defined as “the integrated sequence of actions, taken by individuals or by groups operating for individual business units in a world characterised by a large measure of uncertainty, such actions being modified in greater or less degree by contemporary economic and social forces.”

He analysed this definition more carefully and attempted to “operationalise” it by stating that entrepreneurship is “...the purposeful activity (including an integrated sequence of decisions) of an individual or a group of associated individuals, undertaken to initiate, maintain, or aggrandize a profit-oriented business unit for the production or distribution of economic goods or services” (Cole 1959:7).
Higgins (1959:88) highlighted the uncrystallised structure of the usual definitions of entrepreneurship by his version of the classical theory of development: "By 'entrepreneurship' is meant the function of seeing investment and production opportunities; organizing an enterprise to undertake a new production process; raising capital, hiring labour, arranging for a supply of raw materials, finding a site, and combining these factors of production into a going concern; introducing new techniques and commodities, discovering new sources of natural resources; and selecting top managers for day-to-day operations." Entrepreneurship, at this stage, is seen as a developmental process. A sequence of actions sets in motion the entrepreneurial process which, according to Higgins, develops step by step into a fully fledged and profit-making business.

More recent research (Timmons, Smollen and Dungee 1977; Gilad 1984:151-161; Jurcova 1993:383-386) came up with a variety of viewpoints. Creativity is focused on as an essential attribute, from the initial conception of a new venture right through until the business reaches maturity. Recent research also focuses on entrepreneurial behaviour.

Psychologists seem to have neglected the investigation of creative economic behaviour when identifying entrepreneurial characteristics and, in so doing, have missed the point that creativity and entrepreneurship are inseparable (Gilad 1984:151). In fact, Gilad saw entrepreneurship as "the essence of creativity in business."

According to Timmons et al (1977), "Entrepreneurship is the ability to create and build something from practically nothing. It is initiating, doing, achieving, and building an enterprise or organization, rather than just watching, analysing or describing one. It is the knack for sensing an opportunity where others see chaos, contradiction and confusion. It is the ability to build a 'founding team' to complement your own skills and talents. It is the know-how to find, marshal and control resources (often owned by others) and to make sure you don't run out of money when you need it most. Finally, it is the willingness to take calculated risks, both personal and financial - and then do everything possible to get the odds in your favour." The activities described here that constitute entrepreneurship are all based on skills that the individual already possesses or has acquired or may
still need to master. What the individual **does** determines whether or not the entrepreneurial process is set into motion. The ability to be creative continuously throughout the entrepreneurial process is essential.

In order to substantiate and illustrate the interaction between entrepreneurship and creativity, Torrance (1967) defined creativity as "the process of becoming sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies and so on; identifying the difficulty; searching for solutions; making guesses or formulating hypotheses and possibly modifying and retesting them; and finally communicating the results." That which has been described step by step in this definition corresponds with the elements and process of entrepreneurship. Entrepreneurship only goes into action when the entrepreneur **acts** upon the opportunity he has identified in the market.

Gilad (1984:155-156) claimed that all entrepreneurial acts are creative. He agreed that defining creativity is as elusive and difficult as it is to define the entrepreneur. However, these two concepts have several properties in common, namely, unusualness, appropriateness, transformation and condensation (Jackson and Messick 1967, in Gilad 1984:155.)

Jurcova (1993:383), following the line of thought of other authors, defined entrepreneurship as "a type of **creative activity**. An entrepreneur is a creative person establishing and setting up a new company (orientation) which fills the gaps in the market or which creates new needs in the market and predicts new opportunities and future demands for a product or service." Continuous creative behaviour is the essence of entrepreneurship. From the moment an individual recognises an opportunity to build and maintain a business, his creative ability is translated into skills, and determines progress, profit-making and success.

Stevenson (1995:50) defined entrepreneurship, from the viewpoint of Harvard University, as "the pursuit of opportunity without regard to the resources at hand. An opportunity is a desired future state that differs from the present. To pursue it, you must have a belief that achievement is possible." He believed that entrepreneurship is based on the following principles:
- Pursuit of opportunity.
- Rapid commitment and change.
- Multistage decision-making.
- Using other people's resources.
- Managing networks and relationships.
- Compensating for value created.

"Entrepreneurship in effect means finding and utilizing opportunity. It is opportunity-focussed and not problem-focussed management that deals with problems. Entrepreneurs deal with opportunity. The entrepreneur is the systematic risk-maker and risk-taker, and he discharges this function by looking for and finding opportunity" (Drucker 1985, in Maasdorp 1980:92).

Van Aarde and Van Aarde (1997:5) defined entrepreneurship as “the act of initiating, creating, building and expanding an enterprise or organisation, building an entrepreneurial team and gathering other resources to exploit an opportunity in the marketplace for long-term gain.” Utilising opportunities and having the skills to follow through on the rest of the entrepreneurial process complete the cycle called entrepreneurship.

Ability, skills and behaviour are identified by researchers as being hand in hand. Beyers (1988:4) referred to entrepreneurship as a behaviour pattern more or less common to all people, but more recognisable in certain people who identify opportunities and initiate economic growth and development.

Entrepreneurship is not knowledge, but rather behaviour. Ross (1987:78) stated that “to get things done, you're just going to have to slug it out.” Behaviour can be learned. In the entrepreneurial context, the skills that will determine entrepreneurial behaviour are applied for success.

The concepts entrepreneurship and entrepreneur are part and parcel of a complex economic process known as new venture creation, where the behaviour, more than the characteristics of the creator of
a new venture, namely the entrepreneur, is the trigger that will set the whole process into action. Researchers studying the special personal qualities of entrepreneurs face traitorous pitfalls (Van de Ven 1980:86) in order to operationalise the relevant definitions: “Researchers wedded to the conception of entrepreneurship for studying the creation of organisations can learn much from the history of research on leadership. Like the studies of entrepreneurship, this research began by investigation the traits and personality characteristics of leaders. However, no empirical evidence was found to support the expectation that there are a finite number of characteristics or traits of leaders and that these traits differentiate successful from unsuccessful leaders. More recently, research into leadership has apparently made some progress by focussing on the behaviour of leaders (that is, on what they do instead of what they are) and by determining what situational factors or conditions moderate the effects of their behaviour and performance.”

Many individuals from the general population have a convincing number of entrepreneurial qualities, but are not entrepreneurs. Studies of traits and characteristics seem to be a way of thinking that prevents the researcher from remaining aware of the question “How can we know the dance from the dancer?” (Yeats 1956, in Gartner 1988:11.)

Gartner (1988:22-23) used the example of a baseball player, pointing out a number of physical and personality traits common to baseball players. But, if one loses sight of the fact that baseball players exhibit baseball-playing behaviour (running, pitching, throwing, catching, hitting, sliding and so on), one would have great difficulty in compiling an effective, productive working definition of who a baseball player, and, for that matter, a welder, doctor, teacher, cab-driver or entrepreneur is.

Gartner (1988:23-24) warned that unless researchers’ viewpoints stay clear and focussed, preventing behaviour and trait issues from mingling, empirical research would be inconclusive and very difficult to do. Even attempts to distinguish entrepreneurs from small business owners are interspersed with the dilemma of whether to use the trait approach, or rather focussing on the intentionality of the individual, personal goals, the degree of difference in terms of innovation, and a myriad of other issues and aspects.
Gartner (1988:26) raised the question of whether any success has been achieved in compiling a personality profile of the entrepreneur. Asking who an entrepreneur is, seems to be the wrong question. Gartner suggested that the focus changes from defining the entrepreneur to viewing entrepreneurship as "the creation of new organisations ... If we are to understand the phenomenon of entrepreneurship in order to encourage its growth, then we need to focus on the process by which new organizations are created. This may seem like a simple refinement of focus (that is: Look at what the entrepreneur does, not who the entrepreneur is,) but it is actually a rather thoroughgoing change in our orientation. From this perspective, other issues in the field might be seen with new clarity." One may find that, rather than emphasising the states of being of the entrepreneur, small business owner, baseball player and others, one could identify the sets of behaviour that link them to their particular operations, be it organisation creation, baseball playing, and so forth. Gartner (1988:26) suggested that "entrepreneurship ends when the creation stage of the organisation ends", as the organisation passes through various stages of growth, maturity and decline (Greiner 1972, Steinmetz 1969), and the role of the entrepreneur who creates the venture changes at each stage - innovator, manager, small business owner, division vice-president, etc. (Gartner 1988:26.)

Gartner (1988:26-27) suggested that research questions focus on, inter alia, "what individuals do to enable organisations to come into existence". He illustrated this point by referring to the research path that had been followed by Mintzberg (1973:3) regarding management:

- "We must be able to answer a number of specific questions before we can expect managerial training and management science to have any real impact on practice.
- What kinds of activities does the manager perform? What kinds of information does he process? With who must he work? Where? How frequently?
- What are the distinguishing characteristics of managerial work? What is of interest about the media the manager uses? The activities he prefers to engage in, the flow of these activities during the workday, his use of time, the pressures of the job?
- What basic roles can be inferred from the study of the manager's activities? What roles does the manager perform in moving information, in making decisions, in dealing with people?
What variations exist among managerial jobs? To what extent can basic differences be attributed to the situation, the incumbent, the job, the organization, and the environment?

To what extent is managements a science? To what extent is the manager’s work programmed (that is, repetitive, systematic and predictable)? To what extent is it programmable? To what extent can the management scientist ‘re-program’ managerial work?”

Field work done by researchers should provide answers to more questions that will arise around the process of entrepreneurs creating organisations (Gartner 1988:27). Gartner (1988:28) closed his argument for viewing entrepreneurship from a behavioural perspective as follows: “The entrepreneur is not a fixed state of existence. Rather, entrepreneurship is a role that individuals undertake to create organisations.”

Boshoff et al (1992:50-51) quoted numerous definitions of entrepreneurship and stated that there were many more. The concept of entrepreneurship, which is generally defined in relation to a business environment only, should be extended to other spheres of life where entrepreneurial acts may occur, even in science and scientific endeavour.

2.2.6 Conclusion

A number of definitions refer to the “functions” of the person called an entrepreneur. It seems as if the person known as an entrepreneur takes on various roles at various stages of the development of the business. The entrepreneur seems to be a multi-skilled person functioning on multiple levels during the life of the business or organisation.

Cuevas (1994:82-83) defined the entrepreneur as an individual that performs what one could call a “particular” action in accordance with “particular” psychological characteristics and/or “particular” circumstances. Personal characteristics and sociological factors in the economic sphere have an effect, whether negative or positive, on the entrepreneur. Cuevas concluded that these three spheres -
economic, psychological and sociological - meet in what is generally known as the figure of the entrepreneur. The entrepreneur performs these functions in new firms, small corporations, small and medium enterprises and some of them once the corporation has been established (Cuevas 1994:88).

Therefore, the entrepreneur might find himself within a well-established company or at the helm of his own new venture. His role could be very specific: the initiator, the engine to start off this new venture vehicle, or even included in the role could be the administrator, the risk-taker, the manager and the employee. The entrepreneur is truly a phenomenon too exceptional to capture in one definition.

To separate the entrepreneur from the process of entrepreneurship does not seem to be effective either. And again, defining entrepreneurship produced as many and varied an array of definitions as was the case when defining the entrepreneur. Issues that many researchers agree on are the fact that entrepreneurship is a process; that creativity, innovation and risk-taking are an integral part of the entrepreneurial process; and that what the entrepreneur does (that is, entrepreneurial behaviour) has more impact on new-venture creation than who the entrepreneur is.

For the purpose of this study, entrepreneurship is deemed to be a developmental process, where an individual executes a sequence of continuously creative actions, resulting in setting into motion the entrepreneurial process of creating business.

2.3 CHARACTERISTICS OF AN ENTREPRENEUR

2.3.1 Introduction

Defining who the entrepreneur is, based on characteristics or personality traits, has been an accepted practice amongst many authors and researchers active in the field of entrepreneurship. What follows
in this section will show the immense effort it takes to draw up a definition of an entrepreneur on the basis of personal characteristics.

2.3.2 Capturing characteristics and/or personality traits

An early nineteenth-century industrialist, Say (in Winslow and Solomon 1987:205) characterised an entrepreneur as an “adventurer or master-manufacturer possessing a number of desirable attributes and talents.” This statement embodies the approach researchers have used until recently to identify who the entrepreneur is. This approach, known as the trait approach, focusses on highlighting psychological characteristics specific to the entrepreneur. Psychological characteristics are defined as being enduring features specific to a particular person, resulting in behaviour that remains consistent, regardless of the situation in which the person might find himself. Enduring personality traits are fixed early in a person’s childhood development. Attitudes, interpersonal skills and processes of social cognition can be acquired through learning, later in life (Shaver 1995:21).

Achievement motivation seemed to have been the only personality trait showing a clear correlation with entrepreneurial behaviour. Shaver (1995:20-21) found that the assessment measures used in previous research showed that locus of control, risk-taking and creativity could, for various reasons, not be considered constant for behaviour as specific as that encapsulated in entrepreneurship. She concluded that "there does not seem to be a coherent and meaningful personality structure that distinguishes entrepreneurs from the rest of us." This finding was supported by Van Aarde and Van Aarde (1997:8-9). Although much research has been done in an attempt to identify the characteristics of a successful entrepreneur, not one study has been able to come up with the exact personality traits that will predict whether or not a person will be successful as an entrepreneur.

Goodman (1994:29), director of the University of Southern California Entrepreneur Program, stated that people who will implement good ideas are the ones with passion, imagination and self-determination. Imagination is "having the ability to recognize opportunity and to see where it might apply to your interests" (Goodman 1994:29). Imagination, therefore, implies the ability to envisage
alternative scenarios, such as plan B, plan C, plan D and so forth. Crucially, successful venture-creators are never victims of fate; they act out of choice. Self-determination is a factor that contributes towards them being productive; they choose to succeed, to be happy, to view a crises as a challenge. When people "know they can succeed, when they exert the effort to learn everything they need to know, when they apply that passion and knowledge with imagination", they are on their way to launching their own businesses successfully (Goodman 1994:29).

Two relatively comprehensive summaries of entrepreneurial characteristics have been done by Brockhaus and Horwits (1985:42-43) and Gartner (1988:13-20). These are not reflected in this study. Solomon and Winslow (1988:164-165) researched existing literature in order to understand who the entrepreneur is, the rationale behind this being that if various characteristics could make the successful entrepreneur stand out in a crowd, so to speak, limited national and organisational resources could be placed with relative safety in those hands. Solomon and Winslow (1988:165) used Table 2.1 from Carland et al (1984:354-359) as a historical overview of the characteristics of entrepreneurs. Carland et al (1984:356) recognised, too, the remarkable and phenomenal accumulation of data that had been gathered by using the trait and characteristic approach. Table 2.1 has been adapted to suit this researcher's intention of giving a brief summary of various characteristics found in literature as well as various descriptions and words used for the same or similar concepts:

**TABLE 2.1: A brief summary of entrepreneurial characteristics.**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Authors and dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk-bearing; risk-taking; risk measurement; moderate risk-taker; not a gambler; an understanding of risk; challenge-taker; views setbacks as new challenges; calculated risk-taking</td>
<td>Mill 1848; McClelland 1961; Palmer 1971; Welsh and White 1981; Stevenson 1995; Drucker 1985; Jurcova 1993; Pottas 1981; Durham University Business School 1994</td>
</tr>
<tr>
<td>Innovation, initiative; innovation and creativity; imagination; creative problem-solver; analytical ability; flexible; problem-solving ability</td>
<td>Schumpeter 1934; Timmons 1978; Goodman 1994; Drucker 1985; Jurcova 1993; Pottas 1981; Donckels and Miettinen 1990; Jalan and Kleiner 1995; Van Aarde and Van Aarde 1997; Durham University Business School 1994</td>
</tr>
<tr>
<td>--------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Desire for responsibility; responsibility-seeker</td>
<td>Sutton 1954; Davids 1963; Welsh and White 1981; Jurcova 1993; Burch 1986</td>
</tr>
<tr>
<td>Need for achievement; to improve himself; motivation; a desire to achieve; excellence-oriented</td>
<td>McClelland 1961; Liles 1974b; Langan-Fox and Roth 1995; Pottas 1981; Burch 1986; Durham University Business School 1994</td>
</tr>
<tr>
<td>Ambition; drive for independence; self-confidence; independence-oriented; a belief in self; positive self-image</td>
<td>Davids 1963; Timmons 1978; Dunkelburg and Cooper 1982; Stevenson 1995; Drucker 1985; Jurcova 1993; Pottas 1981</td>
</tr>
<tr>
<td>Drive/mental; human relations; compatibility; leadership; good communication skills; good organiser</td>
<td>Pickle 1964; Drucker 1985; Donckels and Miettinen 1990; Burch 1986</td>
</tr>
<tr>
<td>Need for power; need to control; prefers to be autonomous; self-determination</td>
<td>Winter 1973; Welch and White 1981; Langan-Fox and Roth 1995; Pottas 1981; Durham University Business School 1994; Goodman 1994</td>
</tr>
<tr>
<td>Internal locus of control; not to be beholden to external agents; source of formal authority</td>
<td>Borland 1974; Pottas 1981; Durham University Business School 1994; Weber 1917; Hartman 1959</td>
</tr>
<tr>
<td>Personal value-orientation; values of entrepreneurs</td>
<td>Gasse 1977; Fernald and Solomon 1986</td>
</tr>
<tr>
<td>Goal-oriented; a belief in purpose; work commitment; sets realistic goals</td>
<td>Timmons 1978; Stevenson 1995; Jurcova 1993; Pottas 1981</td>
</tr>
<tr>
<td>Trait</td>
<td>Reference</td>
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<td>----------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Energetic; ambitious; positive reaction to setbacks; tenacity; to work hard and enthusiastically to achieve set goals; perseverance in seeking solutions to problems; can tolerate stress; high level of energy</td>
<td>Sexton 1980; Stevenson 1995; Jurcova 1993; Pottas 1981</td>
</tr>
<tr>
<td>Growth-oriented; concerned with the future, prepares well in advance; nurturing quality</td>
<td>Dunkelburg and Cooper 1982; Pottas 1981; Burch 1986</td>
</tr>
<tr>
<td>Strong persuasive powers</td>
<td>Donckels and Miettinen 1990</td>
</tr>
<tr>
<td>Positive response to changes; opportunism; optimism</td>
<td>Donckels and Miettinen 1990; Durham University Business School 1994; Burch 1986</td>
</tr>
<tr>
<td>Profit-oriented; money-oriented; reward-oriented</td>
<td>Donckels and Miettinen 1990; Burch 1986</td>
</tr>
<tr>
<td>Craftsman-oriented; technical knowledge; a deep knowledge; ascribes success to utilising own skills</td>
<td>Dunkelburg and Cooper 1982; Pickle 1964; Goodman 1994; Pottas 1981</td>
</tr>
<tr>
<td>Mildly sociopathic</td>
<td>Winslow and Solomon 1987</td>
</tr>
<tr>
<td>Attention to detail</td>
<td>Stevenson 1995</td>
</tr>
<tr>
<td>An understanding of what motivates other people to take action; perceptiveness</td>
<td>Stevenson 1995; Donckels and Miettinen 1990</td>
</tr>
<tr>
<td>Passion</td>
<td>Goodman 1994</td>
</tr>
<tr>
<td>Choice; vision; foresight</td>
<td>Goodman 1994; Donckels and Miettinen 1990; Quincy Hunsikkel 1986; Durham University Business School 1994</td>
</tr>
<tr>
<td>Sensitivity to problems; responsiveness to suggestion and criticism</td>
<td>Jurcova 1993; Donckels and Miettinen 1990</td>
</tr>
</tbody>
</table>
The following are personality traits that occur time and again in the literature:

- Need for achievement
- Calculated risk-taking
- Internal locus of control
- Need for autonomy
- Creativity and innovation
- Vision
- Opportunism
- A tolerance for insecurity and ambiguity

In the next section a closer look will be taken at a number of the personality characteristics reflected in Table 2.1.

2.3.3 Refinement of various psychological characteristics that entrepreneurs have in common

There is general agreement amongst authors that entrepreneurs have certain psychological characteristics in common. These characteristics are refined in the following section in order to get an idea of what each entails.

2.3.3.1 Need for achievement

The need for achievement is the desire to achieve something that is outstanding and thus something to be proud of (Burch 1986:13-16) by setting challenging but attainable goals (Herron 1994:21). The need for achievement also comprises the following aspects:

- A drive to do things better
- A drive to improve things
- Setting high personal standards/personal excellence (achievable because they believe that by their own efforts they can be successful; not victims of circumstances)
- Goal-orientated (an element of their being)
Action-orientated (activities relevant to their goals)

Time conscious - future effect of their present behaviour

Perseverance - sustain growth and development beyond initial stage of new venture

Need for affiliation

Need for power (Pivo 1987:13-100)

Perseverance and/or endurance - not easily discouraged, not even when faced with failure (Jooste 1983:9)

Excellence-orientated (Burch 1986:13-16)

Performances to be evaluated frequently and timeously (needs feedback)

Ambition - desire for distinction (Herron 1994:21)

Originated during childhood - parents applied a less authoritarian style of upbringing and/or parenting; set high standards; were involved with child's activities but didn't dominate his affairs (Jooste 1985:7-8)

Desire to achieve goals in relation to a set of standards - goals may be expressed in terms of business success or personal recognition as a consequence of business success

Accepting personal responsibility for good or poor performance of the business instead of blaming environmental or chance factors (Durham University Business School 1994:6-7)

2.3.3.2 Moderate risk propensity/tendency

Moderate risk propensity indicates the ability to make, under unusually uncertain circumstances, decisions which might result in possible loss of reputation, health, comfort, money, security, status etc. (Pivo 1987.) Other aspects of moderate risk propensity are:

- Willingness to accept the inherent risk of starting a new business (Herron 1994:19-20).

- Possibly because of previous experience, his own strong need to achieve, and internal locus of control (that his behaviour and/or efforts will have a favourable affect on the outcome), he foresees that the venture might be successful (Pivo 1987:13-100).

- Four types of risks are identified:
1. Financial risk, pertaining to personal funds
2. Risk to job availability: giving up of an established job and running the risk of not being employed again (career risks)
3. Risk to family: neglect of family (family and social risks)
4. Psychological or emotional risk: in case the venture fails, carrying of personal blame and blow to self-confidence (Beyers 1988:33-34; Liles 1974a:14-15)

- Risk-taking is an inherent factor of venture-creation that the entrepreneur accepts (Beyers 1988:32-33). Research has already shown that the entrepreneur is a medium risk-taker. He is not a person who takes chances, but a person who calculates the possibility of success, investigating environmental and related factors, and then decides to take the risk (Bruce 1976:76; Timmons et al 1977:80).

- Calculated risks are what an entrepreneur deals with. Bruce (1976:76) described the entrepreneur's risk-taking activities or tendencies as that "... the alert entrepreneur understands himself and his social environment and does not take unnecessary chances. The individual who goes to the trouble of obtaining additional information is able to assess the probability of success more accurately than the one who does not. The entrepreneur will take a more calculated sort of risk."

2.3.3.3 Internal locus of control

Internal locus of control means that -

- the individual assigns the occurrence of failure or satisfaction to himself and not to outside sources (Pivo 1987:13-100);
- the individual's destiny is controlled from within himself and not from external sources; and
- the individual has control over events that might affect his success (Herron 1994:21-22).
2.3.3.4 Desire for independence/autonomy

Desire for independence and autonomy indicates a definite preference for independence, to be economically self-reliant, and autonomous. These individuals -

- do not like relying on others;
- see running their own business as a solution;
- need to do and say things their own way, occasionally against the culturally or socially accepted norm; and
- need to be in charge of their own lives, and to own and manage their own businesses as a mechanism for them to satisfy this need (Durham University Business School 1994:6-7).

2.3.3.5 Innovation and creativity

Innovation and creativity refer to an individual's resourcefulness, that is, his tendency to create, experiment, and investigate new ideas (Jooste 1983:9). The two characteristics also encapsulate the following:

- An indication of the individual's cognitive style:
  - Adaptive approach to a problem (adaptor): according to the tested manner. Proceeds within the established practices theories and policies. Attempts to improve and do better.
  - Innovative approach (innovator): a new and questionable approach and solutions to a task. Reconstructs the problem away from established viewpoints. Doing things differently in a less acceptable way (Pivo 1987:13).

- Thinking and acting creatively and being able to conceptualise and put into action innovative solutions to problems (Durham University Business School 1994:7).
- Innovation - finding new and better ways of doing things that are commercialised; improvements in both technology and methodology, which may be evident in product changes, process changes, new approaches to marketing, new forms of distribution and new
concepts of scope (Van Aarde and Van Aarde 1997:19).

- Creativity - being sensitive to problems, deficiencies, gaps in knowledge, missing elements, disharmonies, and so on; identifying the difficulties; searching for solutions, making guesses, or formulating hypotheses about the deficiencies; testing and retesting them; and finally communicating the results (Jalan and Kleiner 1995:20).

2.3.3.6 Vision

Vision implies that an individual -

- creates a point of reference against which options can be considered and decisions can be made on both a day-to-day and a strategic basis (Durham University Business School 1994:5).

2.3.3.7 Opportunism and optimism

Opportunism and optimism refer to the ability to take advantage of opportunities by acting on them (Durham University Business School 1994:7). It also includes the following:

- Able to identify and act on opportunities in order to plan for the growth of the business (Herron 1994:26).

- Optimistic - because of their drive to succeed, entrepreneurs live by the doctrine that the present time is the best time and that anything is possible if you want it hard enough (Burch 1986:13-16).

- The ability to see opportunities.

2.3.3.8 Tolerance for ambiguity

Tolerance for ambiguity indicates the ability to deal with the uncertainty that surrounds the creation of a new business (Herron 1994:22). Also -

- the power to deal with uncertainty requires the following:
a high degree of self-confidence;
the power to judge one's own personal qualities as compared to those of other individuals (competitors, suppliers, buyers and employees); and
a disposition to act on one's own opinion, venturesomeness and foresight (Knight, 1921; 1964:269).

2.3.3.9 Other characteristics

- Sense of responsibility -
  - willing to take responsibility for their actions;
  - taking initiative and leading (Pivo 1987:13-100); and
  - accepting responsibility - perceive the new venture as an extension of themselves and thus accept full responsibility for their venture. They feel morally, legally, financially and mentally accountable for the venture (Burch 1986:13-16).

- Positive self-image -
  - aware of weak and strong points (Pivo 1987:20);
  - self-confident; and
  - able to do without continuous approval and recognition (Herron 1994:18-29).

- Individualism -
  - more task-orientated than people-orientated; and
  - low need for affiliation - tend towards individualism (high need for achievement - found to run successful businesses; lower need for achievement, higher need for affiliation - equally successful) (Herron 1994:18-29).

- Extraordinary capacity for work or hard-working -
  - high energy, diligence (Jooste 1983:5-6); and
One realises that many of the above characteristics are interconnected. A need for power forms part of the foundation of a need for achievement, and creative innovation forms part of what is at the basis of calculated risk-taking. This may imply that a certain group of character traits will function together and can be developed together through skills training in order to prepare an individual for entrepreneurship. Therefore, focusing on the trait approach only may be a limited way of attempting to identify the entrepreneur.

2.3.4 Questioning the traditional approach of isolating personality characteristics in order to identify entrepreneurs

Boshoff et al (1992:51) reviewed the research that had been done during the preceding thirty-three years, since approximately 1959. They concluded that the approach according to which knowledge had been gathered in order to identify an entrepreneur in terms of traits or characteristics is inadequate. They quoted Cole (1969:17) who had almost prophetically stated: “My own personal experience was that for ten years we ran a research centre in entrepreneurial history, for ten years we tried to define the entrepreneur. We never succeeded. Each of us had some notion of it - what he thought was for his purposes, a useful definition. And I don't think you're going to get further than that.” They also quoted Brockhaus and Horwits (1985:42), who concluded that “the literature appears to support the argument that there is no generic definition of the entrepreneur, or if there is, we do not have the psychological instruments to discover it at this time.” Finally they quoted Gartner (1988:12, 21):

- “... many (and often vague) definitions of the entrepreneur have been used (in many studies the entrepreneur is never defined);”
- “... there are few studies that employ the same definition;”
- “... lack of basic agreement as to ‘who an entrepreneur is’ has led to the selection of samples of ‘entrepreneurs’ that are hardly homogeneous ... For many of the samples it could be said that variation within the sample is more significant, i.e. could tell us more than variation between the sample and the general population;”
- “... a startling number of traits and characteristics have been attributed to the entrepreneur, and”
a 'psychological profile' of the entrepreneur assembled from the studies would portray someone larger than life, full of contradictions and, conversely, someone so full of traits that he would have to be a sort of generic Everyman."

Rather than trying to identify elusive psychological characteristics, one should look at the psychology of new-venture creation and the business start-up equation, namely that, when the overall climate is favourable, new ventures will be created and "who does this is unimportant" (Shaver 1995:21). Shaver (Shaver and Scott 1991:22) summarised this by noting: "Economic circumstances are important; social networks are important; finance is important; even public agency assistance is important. But none of these will, alone, create a new venture. For that we need a person in whose mind all of the possibilities come together ..."

Potentially successful entrepreneurs do not only talk about their ideas; they turn them into business ventures. All of these entrepreneurs show passion, the ability to make a choice and a sound knowledge. A person who is truly passionate about his or her business idea will speak with confidence, and will have acquired in-depth knowledge of the market and the industry, even though this might have taken them months, even years. People willing to fund new ventures ask the following questions regarding successful entrepreneurs:

▸ Are you tenacious?
▸ Do you have the technical skills to run the business and produce the product?
▸ Do you believe in your own ability? (Goodman 1994:29.)

Winslow and Solomon (1987:210) commented on the fact that entrepreneurs are continually faced with and often experience failure and frustration. In this regard Soichiro Honda remarked that "many people dream of success. To me success can be achieved only through repeated failure and introspection. In fact, success represents one percent of your work which results only from the ninety-nine percent that is called failure" (Gilder 1984:175-201). True entrepreneurs do not waste much energy on their failures. They look at these as learning experiences (Goodman 1994:29).
Shaver (1995:21) posed a very relevant question. "Could it be that the people who become entrepreneurs are those who have persisted through every challenge, while 'non entrepreneurs' are folks who may have tried once, failed, and tossed in the towel? ... Could people who eventually become entrepreneurs think differently from other people about the causes of success and failure?"

Acquiring particular skills, gaining specific knowledge and experience, working very hard, facing challenges and persisting in the face of failure - these issues refer more to the actions a person takes than to who that person is. A particular mind-set and attitude are required for a person to set the entrepreneurial process in motion. Separating the individual with an entrepreneurial attitude from the process will hamper new-venture creation. Finding a way, or allowing the entrepreneurial attitude and the entrepreneurial process to "dance" together, could result in successful new-venture creation. By focussing on entrepreneurial characteristics only, the growth of entrepreneurship has been restricted for too long.

2.3.5 Conclusion

One could surmise that a number of the above authors did not find it helpful to define the entrepreneur on the basis of characteristics. Something seems to be missing from the process of capturing who the entrepreneur is. The personal attributes assigned to the entrepreneur, which are seen as a set of enterprising competencies, represent an image which could be recognised and identified in every person. As personal characteristics they could be exercised in any context other than business and with the same degree of success. These competencies, however, could be developed by circumstances. Opportunity as well as threat, however, might lead to the putting into operation of entrepreneurial behaviour (Donckels and Miettinen 1990:33-73). Entrepreneurial behaviour arises from a particular mind set, namely, entrepreneurial attitude.

Beggars and highwaymen were referred to as entrepreneurs, that is, self-employed individuals (see 2.2.1) in the earliest sources. Entrepreneurs, however, differ from this group because of their concern
and passion for their product and the quality thereof, for valuing business associates and long-term relationships and an internal concept and anticipation of the future (Winslow and Solomon 1987:210).

It has been found in literature that there exists a belief that certain people in specific situations and conditions would exhibit and be attracted to what has come to be called entrepreneurial behaviour (Winslow and Solomon 1987:204). Stevenson and Gumpert (1985:86) postulated that "... we should discard the notion that entrepreneurship is an all or none trait that some people ... possess and others don't." The impact of entrepreneurial attitude on the development of entrepreneurship needs to be investigated.

2.4 DEFINING ENTREPRENEURIAL PROCESS, ENTREPRENEURIAL ATTITUDE AND ENTREPRENEURIAL BEHAVIOUR

2.4.1 Introduction

Having travelled the road of personality traits and characteristics, no acceptable or clear framework has emerged that can be used effectively to identify prospective entrepreneurs who can be trained towards new venture creation and sustainable small-business growth. It has been noted increasingly in recent literature that the focus seems to be shifting towards a model of business development, a process more than a person only, that leads to new venture creation. Cromie (1994:62) followed this line of thought when he stated that one needs to understand the nature of the entrepreneurial process and the ways by which individuals manage it in order to understand the ways in which new firms emerge. It seems as if one needs to bring about a mind shift away from using personality traits only, as a framework to identify entrepreneurs. One should look at an interplay or interaction between the individual, the organisation or new venture, and the business context. Before one attempts to discuss the entrepreneurial process, entrepreneurial behaviour and entrepreneurial attitude, one should explore the reasons why individuals might choose a career so filled with uncertainty, and yet so unique, as entrepreneurship.
2.4.2 Occupational choice and entrepreneurial choice

In the general process of occupational choice, selection agents, such as counselling psychologists and vocational guidance personnel, decide whether job candidates are suitable for a particular occupational role or whether they should be turned down (Vroom 1964, in Cromie 1994:65). In this general model of occupational choice, the activities of these selectors go hand in hand with the factors that spur individuals on to make particular occupational choices.

The factors that influence the kind of occupational choices that individuals make range from coincidental happenings where being in the right place at the right time could secure one a job (Cromie 1994:63), to the argument that a person with strong beliefs and values of the religious kind, for example, might well strive to become a clergyman (Duff and Cotgrove 1981:97-107). A third factor used as a general rule amongst selectors is the trait approach. Attitude, trait and personal qualities are matched up with the required aptitudes of a particular occupation. Cromie (1994:63) highlighted the one weakness of this approach, namely, that individuals with different aptitudes could perform successfully at several jobs. Fulfilment of important needs and self-concept theory are also factors that might influence the occupational choices of individuals. The reality of the actual job situation often leads to job dissatisfaction, because the job seeker had unrealistic expectations. This is of particular importance in entrepreneurial choice. The uniqueness of entrepreneurship as an occupation is often misunderstood. Entrepreneurship is characterised by risk-taking, fluid work roles, untried organisational structures and a great number of skills required in this occupation (Cromie 1994:64).

When it comes to entrepreneurship choices, however, business reality factors take the place of selection agency practices applied with other occupations. These reality factors include validating the business idea, determining the need for goods or services, and acquiring suitable resources. Although it may happen that the wrong persons could become entrepreneurs, these business reality factors will take up the role of selectors and separate suitable entrepreneurial candidates from
unsuitable ones (Cromie 1994:65). The business reality factors mentioned above are part of that which constitute the entrepreneurial process.

2.4.3 The entrepreneurial process

Gibb and Richie (1982:26) believed that there are four variables that capture the essence of the entrepreneurial process. Individuals engaging in the process of entrepreneurial choice need to -

- assess personal motives;
- assess managerial and technical skills;
- have to go through the creative process of developing a viable business idea; and
- explore the availability of resources.

Beyers (1988:7) identified the initiative of an entrepreneur as the breeding ground within which new products, services and techniques develop, therefore, within which the entrepreneurial process takes place. Cuevas (1994:81) viewed the entrepreneur as an essential element of the productive process.

Schumpeter (1934:82) remarked on a particular aspect regarding the entrepreneurial process: “It is just as rare for anyone always to remain an entrepreneur throughout the decades of his active life as it is for a businessman never to have a moment in which he is an entrepreneur to however modest a degree.” The entrepreneurial process requires of a business owner to change his roles from entrepreneurial to managerial and back, at various stages during the growth of the business. This is an aspect that demands regular adjustment of attitude and the resultant behaviour of the individual.

The way people think, the meaning they attribute to entrepreneurial issues, namely, attitudes toward independent business, interpersonal skills of self-presentation and negotiation, and ways of thinking about the social world (none of these being personality traits, only personality variables) have a direct impact on their behaviour (Shaver 1995:21). Therefore, a person's beliefs about entrepreneurial potential can change his behaviour in the sense that he would become willing to assume risk, be creative and be persistent because his expectations have changed.
2.4.4 Entrepreneurial attitude and behaviour

"Entrepreneurial" often describes the behaviour, and not the characteristics, of a person or even a business and sometimes even the behaviour of the economy as a whole (Donckels and Miettinen 1990:33-73).

Leibenstein recognised the fact that entrepreneurial characteristics and entrepreneurial behaviour are intertwined. He isolated motivation and perseverance as essential characteristics of an entrepreneur when he short-listed the activities or behaviour of an entrepreneur:

- The entrepreneur finds and fills opportunities between markets.
- He has to overcome obstacles and fill gaps in an imperfect market.
- He has to produce outputs for sale by handling obstacles and gaps.
- He needs to be sufficiently committed to overcome the imperfections of the market (Leibenstein 1987:198).

Schumpeter (1934) identified an entrepreneurial venture by five categories of strategic behaviour or actions initiated by an entrepreneur, namely:

1. Introduction of new goods
2. Introduction of new methods of production
3. Opening of new markets
4. Opening of new sources of supply
5. Industrial reorganisation

Stevenson and Gumpert (1985:86) agreed to give up the notion that entrepreneurship is a trait that only certain individuals or organisations possess. In their opinion entrepreneurship should be viewed as a range of behaviour. To encourage the individuals's tendency towards entrepreneurship a close relationship should exist between opportunity and the individual's needs. For an opportunity to be truly entrepreneurial, that prospect should represent a desirable future state implying growth or change. The individual should also have to believe that it is possible to reach that desirable future
state, based on self-perceived power and the ability to realise goals (Stevenson and Gumpert 1985:86).

In order to demonstrate the different thought patterns that impact on the decision-making processes of entrepreneurs and set the entrepreneurial process in motion through the actions of the entrepreneur, Stevenson and Gumpert (1985:86-87) compared the sequence of questions used by typical administrators to those used by entrepreneurs:

An administrator would ask:
- What resources do I control?
- What structure determines our organisation’s relationship to its market?
- How can I minimise the impact of others on my ability to perform?
- What opportunity is appropriate?

An entrepreneur would ask:
- Where is the opportunity?
- How do I capitalise on it?
- What resources do I need?
- How do I gain control over them?
- What structure is best?

For an individual developing an entrepreneurial mentality, external pressures (market orientation), rather than internal (resource) orientation, stimulate the recognition of opportunity. The cost of pursuing an opportunity, however, is the necessity to change. These rapid changes are found in the fields of technology, consumer economics, social values and political action (Stevenson and Gumpert 1985:87-88). In order to capitalise on these changes, the individual with an entrepreneurial attitude and tendencies would quickly move beyond identifying an opportunity to pursuing it. When the need for resources is addressed, entrepreneurs who are effective, innovatively, imaginatively and sparingly make use of, commit and deploy resources. They often do more with less, and risk pursuing opportunity with inappropriate resources (Stevenson and Gumpert 1985:89). An entrepreneur is
sometimes required to act, for example, as a salesman for a short period in order to address the need for particular resources at a specific stage in the development of his business venture. The entrepreneur is empowered by the fact that he can risk access to small incremental resources, often allocated on the basis of progress (Stevenson and Gumpert 1985:91).

When organising businesses, the entrepreneur may not act as a typical manager would. However, he is not necessarily a bad manager. The entrepreneur may simply have fashioned different tools to, for example, coordinate resources that are not controlled, and to address the need for flexibility and the employees' desire for independence (Stevenson and Gumpert 1985:92). Leibenstein (1987:200) visualised entrepreneurship and the entrepreneurial process as "bundles of activities (behaviour) that can be carried out by ordinary people given some training, if necessary, and reasonable access to resources." Cuevas (1994:82) pointed out that the entrepreneur has different entrepreneurial capacities that should be developed through education (Schultz 1975, in Cuevas 1994:82). The entrepreneur may not be comfortable with one or more of the roles or activities he has to perform within the entrepreneurial process. These skills can be learned, as was pointed out by Leibenstein and Cuevas.

2.4.5 Conclusion

The focus seems to shift from the personality trait approach and the individual as the only point of access to entrepreneurship, to a more holistic view of person, process and propriety as an intricately intertwined entity. Business reality factors, functioning as selectors in the sphere of occupational choice, contribute to the identification and putting into operation of effective and successful entrepreneurs. References to the entrepreneurial process, more than the propensities of a "larger-than-life" individual, have been forthcoming in literature even amongst the followers of the trait approach (see 2.2.3).

The attitude and behaviour of persons who are identified as entrepreneurs are, in terms of activities, actions, strategies and processing, entrepreneurial in nature. Identifying opportunity and then pursuing
that opportunity in a particularly entrepreneurial manner, seem to be what makes an individual truly an entrepreneur. Different opportunities require actions, behaviour, attitudes and strategies that are entrepreneurial, though particular to those opportunities. Different types or categories of entrepreneurs have been identified by researchers.

2.5 DIFFERENT TYPES OF ENTREPRENEURS

2.5.1 Introduction

Using the personality trait framework also sparked off attempts to differentiate between various types of entrepreneurs. Different psychological profiles emerged from this approach, and probably only added to the complexity of trying to define the entrepreneur.

2.5.2 Categorising entrepreneurs

Langan-Fox and Roth (1995:209-211) identified three psychological types of female entrepreneurs (managerial, pragmatic, need achievement) from research done on 60 Australian business women who founded their own enterprises. These women were the initial and major risk-takers (financially, socially and psychologically) in each of their businesses. For the theoretical part, the study used McClelland's traditional theoretical framework regarding entrepreneurial need achievement ('nAch'), referring to "basically unconscious motive dispositions which more accurately describe the energizing, driving and selection functions of motivation" (Langan-Fox and Roth 1995:211), managerial need for power and influence, resistance to subordination, internal locus of control, job satisfaction and achievement values (Langan-Fox and Roth 1995:209) to investigate which psychological attributes motivated founder women (Langan-Fox and Roth 1995:210). Empirically, Langan-Fox and Roth (1995:210) set out to establish and test statistically the existence of female entrepreneurial types, their hypotheses being that both power and achievement motivation might be stronger in one of the three psychological types. The research results described the psychological profiles of managerial,
pragmatist and need achiever entrepreneurs:

> Managerial entrepreneurs were given that name because they reflected most of the dominant traits of managers. They scored high on level of internal locus of control, "san" achievement ("san" being "values which are thought to reflect relatively conscious mental representations, inferring some degree of evaluation" (Langan-Fox and Roth 1995:211), resistance to subordination, job satisfaction, planning for career (activism), ability to influence or have power, "san" power and "san" influence. Managerial entrepreneurs had the lowest need achievement score and a low level of "trust in humankind" (Langan-Fox and Roth 1995:214).

> Pragmatist entrepreneurs scored neither high nor low on certain variables, and the lowest on internal locus of control, resistance to subordination and independence from family (Langan-Fox and Roth 1995:215). Intrinsic entrepreneurial awards did not motivate them as they did the other two groups. Pragmatist entrepreneurs were practical and pragmatic in their approach to entrepreneurship, expecting to make more money by working for themselves.

> Need achiever entrepreneurs scored the highest and therefore represented McClelland's pure "need for achievement" type (McClelland 1987:219-233) the closest. These entrepreneurs scored lowest of all the types on job satisfaction, planning for career, "san" achievement, ability to influence or to have power, need for influence and "san" power (Langan-Fox and Roth 1995:215).

Langan-Fox and Roth concluded that, for at least two-thirds of the sample, need achievement was of more or less moderate to high importance. Although job satisfaction measured relatively high for most of the group, the high-need achievers might possibly be faced with relatively low job satisfaction regularly because, once they have mastered moderately difficult tasks, these tasks easily lose their incentive value for them (Atkinson 1958, in Langan-Fox and Roth 1995:216). Keeping in mind that the whole sample had been in business for more than five years (Langan-Fox and Roth 1995:211) and that 56.6% of the sample consisted of pragmatists (Langan-Fox and Roth 1995:216), one should give serious consideration to Cromie and Johns' (1983:322) conclusion that "The skills necessary to ensure the growth and development of an enterprise may well be different from those required to conceive
and launch a business ... the longer an entrepreneur remains in business, the greater is the tendency for him to resemble an administrative entrepreneur."

Beyers (1988:13-14) differentiated a number of different types of entrepreneurs, confirming that entrepreneurs are active in all spheres of society. Most people exhibit entrepreneurial behaviour, depending on the situation and the individual:

- the **general entrepreneur** (Stanworth and Curran 1976:102);
- the **administrative entrepreneur** (Collins and Moore 1970:3; De Vries 1977:37);
- the **agricultural entrepreneur** (McClelland 1976:65);
- the **independent entrepreneur** (Bruce 1976:43);
- the **opportunistic entrepreneur** (Hornaday and Bunker 1970:50; De Vries 1977:37); and
- the **manager-type entrepreneur** (Bruce 1976:43).

A corporate entrepreneur is known as an **intrapreneur**. He shares many characteristics with an entrepreneur - deliberately seeking opportunities, risking the introduction of change and improvement within a corporate environment (Ross 1987:76). Ross envisaged a company functioning efficiently (doing things right) as well as effectively (doing the right things) (Ross 1987:78), being managed by entrepreneurs/managers who -

- “learn and practice the fundamentals of professional management - planning, organising, controlling, communicating and rational decision-making;
- adopt entrepreneurial behaviour as part of the basic company culture, removing bureaucratic trappings that inhibit innovation; and
- encourage innovation and entrepreneurship among subordinates” (Ross 1987:78-80).

From Ievers's research (Dunkelbury and Cooper 1982, in Ievers 1991:22-23) different characteristics were identified from three clearly different types of business ventures. These were:

1. **Growth-orientated** businesses had entrepreneurs with more business and supervisory experience.
2. Independence-oriented businesses had entrepreneurs with less business experience who were more likely to buy a going concern to meet their need for independence.

3. Craft-orientated businesses experienced lower growth and had owners who had lower educations and were more likely to have started the business themselves.

Ievers (1991:23) also pointed out the multidimensional nature of factors used in research, in order to illustrate the various groups with which entrepreneurs are associated:

- "Liles (1974b:5-14) grouped entrepreneurial businesses into High Potential, run by 'Compulsive Entrepreneurs', Attractive and Marginal, run by 'Misfits';
- Vesper (1980) listed eleven groups, starting with 'Solo self-employed' and ending with 'Entrepreneurial manager';
- Smith (1967) split entrepreneurs into Craftsmen and Opportunists. The former were associated with low growth and sometimes did not even want their companies to grow;
- Filley and Alday (1979) proposed an adjectival division based on the area the entrepreneur placed emphasis on - craft, promotive and administrative."

2.5.3 Conclusion

When considering the types of entrepreneurs determined by the kind of enterprises they create or run, one realises that the entrepreneur and his creation should not be separated. Defining the type of person might be marginalising what entrepreneurship is all about.
2.6 OTHER THEORIES, VIEWS, FRAMEWORKS, AND MODELS ON THE DEVELOPMENT OF ENTREPRENEURSHIP, ENTREPRENEURIAL ATTITUDE AND WHO THE ENTREPRENEUR IS

2.6.1 Introduction

More recent research attempted to move away from the traditional approaches of defining the entrepreneur and entrepreneurship. McClelland, deemed to be the father of the personality trait approach, progressed towards the concept of core competencies needed for entrepreneurial success. Other models are also looked at in the next sections.

2.6.2 Various new approaches

2.6.2.1 Jurcova - determining successful activities

Jurcova (1993:383), a Slovak researcher, posed the question of what determines successful activity within the conditions surrounding newly developing entrepreneurs. Her focus was on personality traits, job attitudes and the barriers that prevent successful activities from taking place under these particular conditions. She identified sensitivity to problems as one of the most essential creative abilities of an entrepreneur (see 2.2.5). She also determined that many of the more or less forty-two entrepreneurial characteristics (McClelland 1987:219) had been identified through research are found in highly creative people (Gilad 1984:151-161; Whiting 1988:178-183; McClelland 1987:219-233). From the research done by Jurcova (1993), it was found that low self-confidence, resulting in a low self-image, creates a barrier in the development of entrepreneurship. Low self-confidence prevents people from being assertive, and therefore prevents them from contributing towards problem-solving and putting forward their own ideas.

In conclusion, she highlighted intensive commitment in solving a problem (work commitment), well thought-out risk-taking, (an entrepreneur is not a risk taker and much less a gambler) willingly
taking personal responsibility, tolerating insecurity, uncertainty and lack of success (Jurcova 1993: 384) and setting one's own goals (long and short term) regardless of others (internal locus of control), as prevalent in the preferred style of work of Slovak entrepreneurs.

2.6.2.2 McClelland and McGee's core competency model

Dozens of different characteristics have been identified by numerous researchers over many decades (Pickle 1968; Hornaday and Bunker 1970:45-54; East-West Centre Technology and Development Institute 1976, in McClelland 1987:219-220). Certain traits have been mentioned more frequently than others (McClelland 1987:219). These are confidence, perseverance, energy or diligence, resourcefulness, creativity, foresight, initiative, versatility (knowledge of product and market), intelligence, perceptiveness (intuitive recognition of truth). However, these competencies can translate into success in any kind of job or career.

Various approaches have been followed through the decades in order to identify entrepreneurs. McClelland (1987:226), deemed to be a leader in the field of entrepreneurship and entrepreneurship training, pointed out in a report that there was no empirical support for previous and persistent beliefs that a list of identified character traits actually holds the key to predicting entrepreneurial success. Over the years McClelland identified the need to achieve as important for entrepreneurial success, that is, an essential component in successful small-business creation. (McClelland, Atkinson, Clark and Lowell 1953; McClelland and Winter 1971, in McClelland 1973:219-233). The answer to the question on what motivates people was empirically supported by various research outcomes (McClelland 1987:221-222). This answer, namely, the need for achievement (n Achievement), was verified by investigating the achievement thinking patterns of people. These patterns are the unique ways in which people think and act (behave) when their achievement motivation has been aroused (McClelland 1987:221). It was also found that it is more likely that people will successfully go into and run small businesses, even when their achievement motivation has not been aroused and that they "performed better when the task was challenging (not routine or too risky); they were more attracted to challenging rather routine or very difficult tasks; they insisted on taking personal responsibility for
their performance; they liked getting quantitative feedback on how good their performance had been, and they were innovative in the sense of looking for new and better ways to improve their performance" (McClelland 1987:221). The activities described in the last sentence are the ones that entrepreneurs must perform in order to increase the growth of their newly-founded enterprises.

McBer and Co. (McClelland 1987:221) developed a method to use in order to substantiate empirically their research on whether other key competencies were needed for entrepreneurial success. Three groups of competencies (nine characteristics) (Table 2.2) were found to be significantly more common amongst successful entrepreneurs:

<table>
<thead>
<tr>
<th>TABLE 2.2: Competencies which are more characteristic of successful than average entrepreneurs in India, Malawi, and Ecuador.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROACTIVITY</td>
</tr>
<tr>
<td>1. Initiative                                  Does things before being asked or forced to by events.</td>
</tr>
<tr>
<td>2. Assertiveness                                 Confronts problems with others directly. Tells others what they have to do.</td>
</tr>
<tr>
<td>ACHIEVEMENT ORIENTATION</td>
</tr>
<tr>
<td>3. Sees and acts on opportunities                Seizes unusual opportunities to start a new business, obtain financing, land, work space, or assistance. (Taking moderate risks.)</td>
</tr>
<tr>
<td>4. Efficiency-orientation                        Looks for or finds ways to do things faster or at less cost.</td>
</tr>
<tr>
<td>5. Concern for high quality of work              States a desire to produce or sell a top or better quality product or service.</td>
</tr>
<tr>
<td>6. Systematic planning                           Breaks a large task down into subtasks, or subgoals, anticipates obstacles, evaluates alternatives.</td>
</tr>
<tr>
<td>7. Monitoring                                   Develops or uses procedures to ensure that work is completed or that work meets standards of quality.</td>
</tr>
<tr>
<td>COMMITMENT TO OTHERS (Customer satisfaction)</td>
</tr>
</tbody>
</table>
8. Commitment to work contract | Makes a personal sacrifice or expends extraordinary effort to complete a job, pitches in with workers or works in their place to get job done.

9. Recognizing the importance of business relationships | Acts to build rapport or friendly relationships with customers, sees interpersonal relationships as a fundamental business resource, places long-term good will over short-term gain.


Surprisingly, the same results revealed no empirical support for believing that some well-known and well-advocated characteristics which McBer referred to as threshold competencies (Table 2.3) contributed significantly to entrepreneurial success (McClelland 1987:226):

<table>
<thead>
<tr>
<th>TABLE 2.3: Competencies which are not more characteristic of successful than average entrepreneurs in India, Malawi, and Ecuador.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Self-confidence</td>
</tr>
<tr>
<td>2. Persistence</td>
</tr>
<tr>
<td>3. Persuasion</td>
</tr>
<tr>
<td>4. Use of influence strategies</td>
</tr>
<tr>
<td>5. Expertise</td>
</tr>
<tr>
<td>6. Information seeking</td>
</tr>
</tbody>
</table>
Neither biographical factors, nor a person's position in life, nor the initial advantage he has, contribute most to his success in his business (1987:229). The core competencies determine who the promising entrepreneurs are.

2.6.2.3 Mahadea's three major themes

Entrepreneurship means different things to different people. Various theorists have approached the conceptualisation of entrepreneurship from various angles, making it virtually impossible to reach consensus. Because of this, Mahadea (1991:26-27) proposed an integrated approach using three major themes, namely -

1. risk-bearing;
2. innovation; and
3. management.

These are especially noticeable within a small firm, where the entrepreneur needs to wear different hats at different stages and phases of the development of his new venture. An integrated approach is necessitated, due to entrepreneurship being a multi-disciplinary subject (Lewis 1985:78). Mahadea (1991:27-28) pointed out that entrepreneurship overlapped with economy, psychology and sociology.

2.6.2.4 Schloss' three stages of performance

Schloss (1968:228), in order to counteract the vagueness surrounding attempted definitions of entrepreneurship, entrepreneurial activity and entrepreneurial behaviour, found a breakdown of this concept into three subfunctions more useful:
Firstly, “Entrepreneurship in a Schumpeterian sense (that is, seeing and seizing an opportunity for a new economic venture)”; innovation being the most important factor here.

Secondly “financial risk-taking.” The attraction that leads to the taking of risks is based on the potential profit implied by the new venture activities.”

Thirdly, “the managerial function.” Once the business creation phase is over, the business needs to be run on a daily basis.

The possible different performances required by these three subfunctions may imply the existence of different types of entrepreneurs, even though these differences may only be a matter of degree (Schloss 1968:232).

2.6.2.5 Hornaday’s model based on the “fuzzy set theory”

Hornaday (1992:12) conceded that there is no agreement on definitions of the concepts “entrepreneur” and “entrepreneurship”. Although, theoretically, identifying entrepreneurial types makes sense from the point of view of empirical research, in reality, searching for the true entrepreneur seems to be a futile waste of time (Aitken 1963:3-9). By focussing on entrepreneurial activity as a phenomenon within organisations and essential for economical progress, three entrepreneurial dimensions are identified, describing the range of entrepreneurship, namely, economic innovation (the what of entrepreneurship), organisation creation (the how) and profit-seeking in the market sector (the where) (Hornaday 1992:13.):

- **Economic innovation** encapsulates the idea of change in the economic system through entrepreneurial activity (Hornaday 1992:14). As a single function of entrepreneurial activity it seems to be too inclusive. All innovative activities do not necessarily have an entrepreneurial origin, but are, however, included as being within the domain of entrepreneurship (Hornaday 1992:14.)

- A second functional description of entrepreneurship includes the concept of a “special kind of personal ‘hands-on’ organisation creation at the decision-making level” (Schumpeter 1964:77). Many small ventures are started because the owner needs to generate an income.
The owner's personal efforts determine whatever achievements are reached. Often, however, businesses depend on other organisational specialists and managers for their success (Hornaday 1992:15).

- In the market sector, the activity of economic innovation within organisation creation has as its objective profit generation.

Conceptually, these three dimensions form an entrepreneurial space, different from other activities. Hornaday (1992:17-18) regarded entrepreneurship as a complex concept. In order to contribute towards identifying entrepreneurial activity he suggests a three-dimensional model, as a framework to deal with describing and justifying this difficult concept. This model is based on the fuzzy set theory, useful in defining imprecise issues such as a set of beautiful women or a set of tall men (Zadeh 1965:338-353). Subjective judgement or valuation is implied in order to demarcate a broad area or relative state where activities may exhibit either greater or lesser degrees of entrepreneurship (Aitken 1963:3-9). No particular activity or groups of activities are included or excluded. Judgements or evaluations are made on whether "enough" activities are taking place along the lines of innovation, organisation creation or profit-seeking.

The fuzzy set approach provides a three-dimensional entrepreneurial framework which could facilitate two major paradigm changes:

1. a less rigid, more flexible approach is followed about whether activities are entrepreneurial or not;
2. this multi-dimensional approach provides reasonable boundaries within which the complex concept of entrepreneurship could be established (Hornaday 1992:21).

2.6.3 Conclusion

Jurcova identified the ability to be creative in various ways as essential to whatever else she had found in her research. Specifically identified personality traits also translate as being effective in jobs other than entrepreneurship. McClelland discovered that although achievement motivation was
important, other competencies, such as pro-activity, achievement-orientation and commitment to others, contribute substantially to entrepreneurial success. No empirical proof could be found that threshold competencies, such as self-confidence and others, are essential for entrepreneurial success.

Hornaday’s introduction of the fuzzy set approach suggests a paradigm shift towards a more flexible approach with reasonable boundaries within which the multiplicity of entrepreneurial activities can be examined. The various approaches seem to indicate and accentuate the possibility that entrepreneurship is a multi-faceted phenomenon that extends beyond psychology into the realms of sociology and economy.

2.7 SUMMARY

Extensive research has been done over many decades, from various viewpoints and in various disciplines in an attempt to identify that elusive phenomenon that encapsulates entrepreneurship, whether it be a person, a process or an action. From a purely psychological viewpoint and therefore looking at personal characteristics, this approach puts too much restraint on attempts to identify effectively who is, and who is not, an entrepreneur.

Economists have been reluctant to include the psychological aspect of entrepreneurship into their economic framework and have found their framework lacking. The sociological impact of the entrepreneur as a person, and involved in a myriad of relationships, whether personal, professional or business-related, has become an aspect for consideration.

The approach to identifying the entrepreneur and defining what entrepreneurship is, seems to have undergone progressive change and seems to include the fact that entrepreneurial behaviour and skill can be taught. Identifying entrepreneurs purely on the basis of personality traits proved to be ineffectual, as a number of these psychometrically identified entrepreneurs were not able to start a new venture successfully and/or progress towards sustainable business growth (Visagie 1994:3).
The role of the entrepreneur seems to be determined by the stage at which he finds himself within the entrepreneurial process, and is characterised by the behaviour which that particular stage in the process requires.

Business reality has proved to be a significant selector of suitable candidates for the choice of entrepreneurship as an occupation. The entrepreneurial process and the entrepreneur's behaviour, attitude and activities are effectively interwoven and the entrepreneur entertains thought patterns and decision-making processes in an entrepreneurial manner. The multiplicity of entrepreneurial activities and the multi-faceted nature of entrepreneurship extends beyond psychology and economy into sociology.

Creativity, vision and combined competencies (see 2.3.3 and 2.6.2.2) seem to be the direction researchers have found to be more effective recently. Paradigm changes have taken place and boundaries have been tested and reset (Hornaday 1992:21). One now has to look at more effective ways in which individuals can be assessed and identified as possible entrepreneurs. The importance of training and experience in entrepreneurship should be kept in mind.
CHAPTER 3

FACTORS INFLUENCING ENTREPRENEURSHIP AND MEASUREMENTS OF ENTREPRENEURSHIP

3.1 INTRODUCTION

Defining who the entrepreneur is, what entrepreneurship is and whether and how entrepreneurial attitude and behaviour all fit together, were looked at during the previous chapter. In this chapter, the impact of demographic factors on the making of an entrepreneur, and initiating entrepreneurship, will be examined.

A literature search was done and the findings regarding the models, frameworks and approaches specifically underlying the measurement of entrepreneurship are reported on in this chapter. The different variables, the change of approach towards traditional variables, such as psychological traits, and investigation into other predictive variables, such as attitudes, behaviour and competencies, are highlighted in order to address the question of what should be measured. Another search was done into what measuring instruments have already been used to identify the entrepreneur and entrepreneurial attitude and behaviour, and is reported on in this chapter too. The traditional measuring instruments used in South African schools will also be looked at in terms of their usefulness in identifying entrepreneurial behaviour, attitude and characteristics.
3.2 FACTORS INFLUENCING ENTREPRENEURSHIP

3.2.1 Introduction

Biographical factors, such as age, gender and educational level, as well as external factors, such as marital status, employment history, type of new venture, financial support, displacements and culture, are viewed in terms of their effect on entrepreneurship and the development of entrepreneurial attitude.

Erwee (1987:743) posed the question of "why a person wishes to start a small business at a particular juncture in his life." Negative displacements, more than positive possibilities, seemed to have hastened the occurrence of venture creation in the past and may carry on doing so. Factors such as being migrant, having been fired or being dissatisfied with a current job, the "empty-nest syndrome", owing to a change in role identification, being a political or religious refugee, all have an effect on a person's perception. Creating a small business becomes a viable option (Erwee 1987:743). A distinction was made between factors that are more intrinsic to the entrepreneur and that will contribute towards developing increased entrepreneurial attitude (biographical variables), and external factors that may influence entrepreneurship.

3.2.2 Biographical variables as possible predictors of increased development of entrepreneurial attitude

Boshoff, Bennett and Owusu (1992:51) differentiated between entrepreneurial characteristics and biographical factors, indicating biographical variables as predictors of whether an entrepreneur would be successful or not. They highlighted specific studies after they had done thorough research on these biographical variables:

Age: The age at which entrepreneurs make the decision to start their own businesses seemed to be between 25 and 40 years (Liles 1974b:5-14; Boshoff et al 1992:52). These perimeters are coined
as a "free choice period", as individuals have gained a substantial amount of experience, competence and self-confidence, but have not confirmed themselves in positions of responsibility and prestige, either career wise, financially or within family ties (Boshoff et al 1992:52). Because considerable amounts of physical and psychological energy are required to set up and run a new venture successfully, Brockhaus's research (1980a:368-372) indicated a higher mean age of 36.6 years for unsuccessful entrepreneurs, compared to the mean age of 23.4 years of successful entrepreneurs. It is still unclear, however, what motivates entrepreneurs to start new ventures at specific ages.


**Education:** Boshoff et al (1992:55-56) concluded that different results were found from research regarding the educational level of entrepreneurs. There is a correlation between the level of education and the type of new business creation. Technology-based small businesses require well-educated and technologically highly skilled innovators (EL-Namaki 1988:98-106; King 1986:399-416; Litvak and Maule 1973:62-68; Howell 1972:47-62; Kent 1983:28-33). There is another school of thought which reflects that "the probability of entering self-employment is relatively high for those with primary education and peaks for men with incomplete secondary level education, and falls sharply to reach a minimum for males with a postgraduate qualification" (Pickles and O'Farrell 1986:430).

### 3.2.3 External factors and their effect on entrepreneurship

**Marital status:** In their research regarding entrepreneurs, Thorne and Ball (1981:65-83), Howell (1972:47-62) and Hisrich (1986:8-16) found that the majority of entrepreneurs were married. Being married has the advantages that strong support systems (i.e. family, husbands, fiancées) were developed, especially in the case of women entrepreneurs (Hisrich 1986:8); that emotional and psychological stability was provided, especially needed when starting a new venture; and that the
unpaid services of spouses during the developmental stages of the new businesses had financial benefits (Pickles and O'Farrel 1986:425-444). Liles (1974b:5-14) argues that the wife can play a key role in the success or failure of the new business (Boshoff et al 1992:53).

**Employment history:** An entrepreneur requires a broad skills base to run his new business (Day 1986:63-66). This may vary from skills and knowledge acquired as part of his work history, to where skills and technology transfer within high-technology ventures is inevitable, to skills needed to run a business in general. Entrepreneurial performance could either be enhanced or hampered by experience (Boshoff et al 1992:54). Though guidelines and knowledge acquired through experience could contribute to the development of the venture, set habits and perceptions could prevent successful new venture creation.

**Type of new venture:** (Also see 2.5.) Erwee (1987:742) pointed out that “many individuals have entrepreneurial or innovative tendencies: however, a particular type of person may have a specific combination of traits which is relevant for a certain type of enterprise.” Very little research has been done on the type of business started and other variables, like entrepreneurial background, response to needs within the community or environment, or even the process of new venture creation (Cooper and Dunkelberg 1981:1-20; Gartner 1985:696-706). Boshoff et al (1992:54) concluded that some research showed that male and female entrepreneurs start different types of new business ventures (Fernald and Solomon 1987:234-247; Cromie and Hayes 1988:87-113). Because of different socio-economic and educational backgrounds, black and white male entrepreneurs also start different types of businesses (Hornaday and Aboud 1971:141-153; Whittaker 1977:245-253). Gomolka (1977:12-22) and Birley, Moss and Saunders (1987:27-35), however, published findings to the contrary regarding gender and the type of new venture creation.

**Capital sources of financing new venture:** Initial start-up capital needed by new enterprises comes from the pocket of the entrepreneur, followed by financial support from family, friends and acquaintances (Birley et al 1987:27-35; Thorne and Ball 1981:65-83; Cooper and Dunkelberg 1986:53-68; Litvak and Maule 1973:268-281). Bureaucrats managing venture capital sources do not
deem an entrepreneur who finally succeeds with a new business as a responsible and safe investment (Day 1986:63-66), because this entrepreneur usually has two or three failed business ventures on his record. Often the less easily calculable assets of the entrepreneur are not appreciated or taken into account when he seeks financial backing: "One of the peculiar difficulties of the true entrepreneur is that often the very process of getting experience (which on more than one occasion might have resulted in failed businesses) and knowledge has left him with a record that identifies him as a 'poor risk'." (Hisrich and Brush 1984:30-37).

Immigrants, minority groups, displacement: Situational factors, such as poverty, discrimination and ethnic visibility (Gomolka 1977:12-22), are possible obstacles to be overcome by minority groups as well as entrepreneurs from other nationalities (King 1986:399-416; Whittaker 1977:245-253). Kent, Sexton and Vesper (1982) came up with a hypothesis that “the more out of place immigrants are in their new environment, the more likely it is that they might start an independent venture.” Entrepreneurship manifests itself also during a phenomena that Hagen (1971) calls “withdrawal of status.” He reasons that “a social group may lose its status and succeeding generations, in a state of tension, may turn to entrepreneurship to retrieve the position that was lost.” This writer finds an analogy to this in what has been and is currently happening with South Africans in terms of retrenchments, deployments, redress, rationalisation, affirmative action and employment equity.

Culture: The question arises as to whether an entrepreneur would be tolerated and allowed to operate in some Third World cultures. Research has indicated that the concept of “entrepreneur” is not part of the vocabulary of many Third World cultures. In order for entrepreneurial activity to be sustainable, additional support to venturesome families and individuals will be essential (Erwee 1987:742). Different cultural groups may place higher value either on “self-realisation” and “individualism” or on community development. This may have a certain impact on the emergence of entrepreneurship (Erwee 1987:743). Godsell (1986, in Erwee 1987:744) indicated that “...blacks and whites had values such as achievement in common, but for blacks achievement seemed to occur within some sort of communal context ... an apparently unique value, labelled Ubuntu by Nguni
speakers and Botho by Sotho-speaking subjects, emerged. This is best translated as ‘humaneness’ and governs relations with other people.”

Economic growth and unemployment: When a country experiences poor economic growth performance, escalating unemployment is the result. Structural factors that cause poor economic growth in South Africa are:

- balance of payment constraints, inter alia, large foreign debts and limited earnings of foreign exchange;
- lack of investment;
- limited export profile, meaning primary commodities such as base metals and other raw materials;
- apartheid policies; and

Because of the above, the economy is unable to grow at a rate that will allow the absorption of a continuously expanding labour force. The South African labour force has the following particular characteristics:

- A high growth rate. The demand for labour exceeds the supply of labour in this economy.
- An oversupply of unskilled and semi-skilled workers (Cawker and Whiteford 1993:2-50).
- A skills shortage. Vacancies are available for persons with specific technical and other high-level qualifications (Muller 1991:3; Deakins, Jennings and Mason 1997:162-163).
- Most children and young school leavers, who are the work force of the future, are from disadvantaged communities that have not been exposed to business from any other angle than being consumers (Eberson 1997:80).

In order to broaden the supply base for basic goods (such as food, clothing and shelter), of which the production is mainly labour intensive, the redistribution of income will increase the demand for those basic goods. Addressing this demand/supply base, as well as improving the skills level of the lower
parts of the income spectrum, the government creates income-generating opportunities through programmes such as -

- low-cost housing - addressing a need for housing and supplying employment opportunities;
- provision of electricity - supplying a service, installing electrical infrastructure, creating a market for locally manufactured goods;
- provision of basic socio-economic needs - water, basic infrastructure, clinics, schools, creches;
- progressive tax system - taxing imported goods; and

Small business development, as well as the development of management skills within small firms or businesses (Deakins et al 1997:162), is the natural next phase following these kinds of programmes and is also essential in order to provide products and services in response to the increased demand for basic goods and services. "Small businesses tend to be a nursery and proving ground for entrepreneurship" (Cawker and Whiteford 1993:113).

3.2.4 Conclusion

Biographical factors do have predictive validity when one attempts to define and identify the entrepreneur. Many aspects could play a role in the decision-making process of becoming an entrepreneur. The right psychological profile alone does not necessarily determine the making of an entrepreneur. Age and incomplete secondary level education have significant impact on the success rate of prospective entrepreneurs and their chances of entering the world of self-employment. Unemployment and the loss of status due to political changes and pressures have a positive impact on entrepreneurship becoming a sought-after occupational choice, not because it is lucrative, but because it becomes the only other viable income-generating option in the labour market.
Keeping in mind that the whole person is involved when potential for entrepreneurship is determined, the focus in this study will now shift towards the question of what constructs are to be measured in the search for the entrepreneur.

3.3 THEORETICAL BACKGROUND ON MEASURING ENTREPRENEURSHIP

3.3.1 Introduction

How does one identify entrepreneurs and entrepreneurial attitude, and encourage entrepreneurship? Many researchers set out to try and answer this question. Over the decades researchers took a thorough look at various constructs that play a significant role in identifying the entrepreneur and, later, entrepreneurial attitude and behaviour. McClelland (1973:1) questioned the effectiveness of determining, as a measure of occupational competency, cognitive ability only. He proposed what he called a “criterion-sampling approach” as an alternative to traditional intelligence testing. Researchers at Durham University in England (Durham University Business School 1994:1) suggested creating a supportive environment in which the entrepreneurial process can take place. They also suggested support to individuals active within the entrepreneurial process, which could improve their skills and, in so doing, their chances of achieving business success. More recently, researchers moved their focus towards the attitudes and behaviour of the person involved in entrepreneurial activities and the entrepreneurial process.

In the next section time will be spent on reviewing those constructs that play a significant role in identifying entrepreneurs, entrepreneurial attitude and behaviour. Literature covering the past thirty years consisted mainly of the following constructs: intelligence, personality, characteristics, motivation, behaviour and attitudes, competencies and Entrepreneurship Theory as possible models or frameworks upon which measurements of entrepreneurship are based. For almost all of these constructs, the work of one specific researcher will be discussed.
3.3.2 Intelligence

Individuals differ in terms of the skills profiles they develop. The abilities, talents or mental skills (human cognitive competencies, also called “intelligences”) that allow individuals to compose a sonata (musical intelligence), to reach extraordinary athletic achievements (bodily-kenesthetic intelligence), to solve problems rapidly (logical-mathematical intelligence), to be linguistically gifted (linguistic intelligence), to navigate the seas without sophisticated equipment (spatial intelligence), to notice distinctions amongst people (interpersonal intelligence) and to possess knowledge of the internal aspects of persons (intrapersonal intelligence), indicate that individuals may not all require the same form of intelligence, but that all require some form of intelligence. The various intelligences quoted above suggest a framework of multiple intelligences that makes it crucially important to help people find “suitable vocational and avocational niches” in their respective societies and cultures (Sternberg and Wagner 1986:165-173). Researchers such as McClelland (1973:1-13), Olson (in Sternberg and Wagner 1986:338-358) and Gardner, Kornhaber and Wake (1996:289-300), scrutinised and questioned intelligence and the traditional standardised-test approach that accompanied it over the decades.

3.3.2.1 Testing for competence rather than intelligence - McClelland

Psychometric testing, and especially profiling constructs such as intelligence, aptitude and personality, was questioned as far back as 1973. McClelland (1973:1) questioned in particular the power it exerts over the lives of prospective college and university students in the field of education and training, and also over prospective employees in the labour market. His purpose was to set into motion a new direction of thinking regarding testing in the future.

This process of re-examining the impact of the use of psychological test results on the career choices of school leavers questions the validity of school grades or symbols as predictors of life performance behaviour (McClelland 1973:2). The job levels of top as well as poorer high school and university students after 20 years were compared during a study. It was found that both groups did equally
well in terms of successful careers. Those with the better grades at school were accepted at better law or medical faculties or schools, and that was the only notable difference between top and poorer achievers at school.

Carefully documented research indicated that neither achievement at school nor amount or quality of education is related to outstanding job performance or vocational success (McClelland 1973:2). Therefore, taking into account issues such as intelligence, aptitude and personality traits only, has little bearing on types of life performance other than what is expected academically at school.

McClelland (1973:2-4) found in studies covering twelve to fourteen years that one of the important traits of an entrepreneur, namely Need for Achievement (nAchievement), is not related to grades or academic test scores, and neither do grades relate to entering entrepreneurial occupations.

McClelland (1973:3) warned against psychologists arguing that intelligence makes some people more proficient in their jobs. Job proficiency measures, such as social status, clothing, manner, habits, accent and language, family and education connections, values, interest and others - a person’s “credentials”, therefore - may impact significantly on whether a person would be successful in a particular job. The significance of both opportunity and socio-economical status (McClelland 1973: 5-6) in securing employment and occupational performance brings one back to the question of what intelligence tests, for example, are valid for: They do predict success in school. However, McClelland stated that “neither the tests nor school grades seem to have much power to predict real competence in many life outcomes. Significant positive correlation had been found in studies, between specific test scores and job-related skills, such as perceptual speed and clerical proficiency, motor ability and proficiency as a vehicle operator” (Ghiselli 1966, in McClelland 1973:6). McClelland (1973:7) called this correlation window the “safe and uncontroversial ground of using tests as criterion samples.”

A wide array of talents, apart from intelligence and aptitude, need to be assessed. These measures should have as validating criteria “grades of life” in the broadest theoretical and practical sense”, instead of grades in school only (McClelland 1973:7). As an alternative approach to traditional
intelligence testing, McClelland (1973:7-13) set out to brainstorm the testing for competence by suggesting six proposals for what he called the "criterion-sampling approach."

1. **The best testing is criterion sampling**
   The assumption that academic skills tests have more general validity is refuted by McClelland's argument that "there are almost no occupations or life situations that require a person to do word analogies, choose the most correct of four alternative meanings of a word etc ... If you want to know how well a person can drive a car (criterion), sample his ability to do so by giving him a driver's test." (McClelland 1973:7.) Criterion and performance analyses, as well as job sampling, should be based on theory and practice. These require new psychological skills away from word games towards careful behavioural analysis and adaptive behaviour sampling (McClelland 1973:8).

2. **Tests should be designed to reflect changes in what the individual has learned**
   McClelland (1973: 8) pointed out one of the hidden prejudices of psychology based on the idea of fixed inherited aptitudes, namely, that human traits cannot be modified by training or experience. He indicated, however, that there is no conclusive evidence to that effect. He suggested that by using as tests samples of life-outcomes behaviours, one can observe that scores on these tests increase as the person's ability (together with experience and wisdom) increases to perform these various life-tasks competently. It may be worth investigating designing a test in such a manner that it measures the growth that has taken place in the trait it is assessing.

3. **How to improve on the characteristic tested, should be made public and explicit**
   The criterion-sampling approach takes the myth out of testing in the sense that the psychologist, tester and student or person tested can work together openly, to improve the scores of the performance test and to improve the trait, characteristic or skill that is being tested. This is possible because how to pass these tests is public knowledge and improvement in skills shows up in the tests (McClelland 1973:9). Faking a high score will become
impossible, as there is a direct connection between test behaviour and criterion behaviour (McClelland 1973:9), as in the case of being tested for a driver’s licence.

4. **Tests should assess competencies, involved in clusters of life outcomes**

McClelland (1973:9) warned against over-specifying skills when sampling criteria. One might end up with hundreds of tests for a handful of different occupations. To prevent this and to complement as well as complete the assessment of occupational outcomes, "clusters of life outcomes", such as more generally useful social competencies (traditional cognitive skills, leadership, interpersonal skills, and other personality variables), need to be included. To illustrate what he meant by "cluster of life outcomes" McClelland referred to communications skills, patience, moderate goal setting and ego development as competencies to be considered when sampling a criterion for a specific occupation. To him measuring complexity of thought as opposed to word analogies was more crucial as a life-outcome criterion. The same goes for the ability to be patient (response delay), which can be measured and taught directly; setting achievable goals and teaching a person to set realistic future goals; and developing a sense of initiative (ego development), which goes a long way in preparing people for competent action in many spheres of life (McClelland 1973:11), as well as in a chosen occupation.

5. **Tests should involve operant as well as respondent behaviour**

McClelland (1973:11) pointed out that most existing tests do not predict life-outcome behaviours. Existing tests require of the test taker to put himself in a structured situation and show the capacity to make a certain kind of choice (respondent behaviour). However, life requires from a person to respond spontaneously to a mostly undefined stimulus (operant behaviour) in an unstructured situation. McClelland (1973:11-12) identified the need for "test items to which there were many correct answers, among which one was better than others in terms of some criteria of efficiency that the person would have to apply." Such a test "requires more lifelike operant behaviour in generating alternative solutions and therefore it
should have more predictive power to a variety of situations in which what the person is expected to do is not so highly structured as in standard respondent tests.”

6. *Tests should sample operant thought patterns to get maximum generalisability to various action outcomes*

In order to avoid long lists of small skills sampling specific occupational behaviour, which have little general predictive power, focussing on thought patterns (codes) might lead to finding generalisable competencies, characteristic of various life outcomes (McClelland 1973:12). The new approach to testing needs to focus more on evaluating educational progress than on selection only. McClelland (1973:13) used the example of selecting a potentially successful or “good” policeman by investigating the thought codes as action correlates of validating criteria for that particular occupation. Having the capacity to lead or influence social groups as part of “a wide network of empirical and theoretical relationships helps find the action characteristics that will be useful for selection purposes.”

McClelland (1973:13) warned against the inaccurate belief that doing well in school implies greater competence and a real ability to do well in life too. Measuring scholastic achievement indicates success in areas that are content specific within the school environment and does not predict effective life outcomes. The profile of achievements that testing should provide the school with should report on scholastic and non-scholastic general competencies in a number of different areas. These results then become a method for helping students and teachers reconsider and redesign the teaching-learning process to achieve mutually agreed-on objectives. The purpose of education is, after all, to assist and educate those who are not progressing within the education system.

3.3.2.2 *Intelligence testing and cultural technologies - Olson*

Olson (in Sternberg and Wagner 1986:357) addressed the concept of intelligence from the viewpoint that it consists of competence needed to deal with cultural technologies, such as literacy in the Western world. Intelligence tests are “useful indicators of competence with the primary technology
of a literate bureaucratic society. The best indication of how well someone will do in learning from, criticising, and applying such information in a literate society is how well they are currently able to handle that information. Good tests accurately sample that current level of competence. Intelligence tests are misused only when test scores are overinterpreted to mean “quality of mind” and then valued above more direct measures of the more limited domain for which actual competence is required. Thus, IQ has been used to exclude people from educational opportunities from which they would benefit and from certain jobs that they are entirely capable of handling.”

3.3.2.3 Intelligence and the workplace - Gardner, Kornhaber and Wake

With the implementation of new technologies in the workplace (e.g., computerisation and increasing exposure to a global economy), intellectual abilities, such as capacity for abstraction, inference and procedural reasoning, are needed more and more for work that has intellectual and financial rewards (Reich 1991, in Gardner, Kornhaber and Wake 1996:298.) This need for the development of specific abilities in the workplace is far-reaching, even into the social sphere, as “the possibility for widespread attainment of the intellectual skills needed in our technological age may rest heavily on education and training, as well as nutrition and health care sufficient to allow such learning to occur” (Reich 1991:249).

3.3.3 Motivation

Along with intelligence, motivation also is deemed a predictor of job performance and a strong contributor to job success. Sternberg and Wagner (1985:297) describes the lack of motivation as “the most serious problem in an employment situation. If I have an employee who lacks certain abilities, I can usually find some kind of work for him to do. But if the person lacks motivation, then there is nothing he will get done in the way I want or in the time span that I am willing to allocate to a given task.”
Motivation is often identified as being either extrinsic or intrinsic. When one is extrinsically motivated, a strong desire for external rewards, such as money, fame and peer recognition, is evident. However, when extrinsic awards end, effort also ceases. When a task or work is pursued because of its high level of interest and because it is "rewarding in and of itself", one is intrinsically motivated (Csikszentmihalyi 1988a:7). The structural and emotional characteristics of tasks that are intrinsically motivating imply that those tasks contain a level of challenge that correlates with a person's current skills. This experience results in the person gaining pleasure from the work and choosing to keep at it. Being intrinsically motivated contributes greatly to developing higher levels of skills. Intrinsically motivated people may prefer to create situations that will lead to their becoming more skilled (Gardner et al 1996:296-297).

The three main motive systems that govern human behaviour are -

1. the achievement motive: This could also be named the efficiency motive because it represents a recurrent concern about doing something better;
2. the power motive: this is a recurrent concern about having impact on people and often also on things; and
3. the affiliative motive: This involves being with others (McClelland 1987:595-598).

The human motive systems may be present in different combinations as part of a person's behaviour.

3.3.3.1 Attributes, motives and types - Langan-Fox and Roth

Langan-Fox and Roth (1995:209) drew attention to the fact that very little empirical research had been done involving the psychological attributes and motives specifically of females who had started their own businesses. A significant number of females in Australia in particular (255 500 business women or 31.5% of the small business population ) chose entrepreneurship as a career option. Using McClelland's framework of need for achievement, Langan-Fox and Roth (1995:210) hypothesised that different entrepreneurial types (for the purpose of their particular study: managerial, pragmatic
and need achievement type entrepreneurs - see 2.5) share similar motives, but in different order of priority determined by the kind of behaviour required by the various types.

Need for achievement was not a highly energising force behind the entrepreneurship of the managerial type. These persons had higher levels in need for power and influence. However, it was pointed out that “the skills necessary to ensure the growth and development of an enterprise may well be different from those required to conceive and launch a business ... the longer an entrepreneur remains in business the greater is the tendency for him to resemble an administrative entrepreneur” (Cromie and Johns 1983:322).

The group that measured highest on need for achievement also scored lowest on job satisfaction. Once tasks of moderate difficulty have been mastered by this group, those tasks lose their incentive value, which results in the presence of regular low levels in job satisfaction. Interdependence of motives was characteristic of the largest group of the sample, the pragmatists. They displayed moderate levels of both need for achievement and self-attributed value of influence and power. This suggests that these individuals chose to enter entrepreneurship as well as to equip themselves with the organisational and managerial skills they might need to run the business once it was off the ground (Langan-Fox and Roth 1995:216).

3.3.4 Personality characteristics

King (1986:409) stated that “personality traits are overplayed by psychologists and underplayed by sociologists. The psychological approach neglects the field in which the individual operates components of marketing forces, and alternative business organisation forms (partnerships and corporations) as expressions of similar personality needs. Sociologists overlook differing patterns, trends and marketing events that a given personality can affect.” King referred to the persuasive and strong personalities of many a trade merchant, which have changed the economic environment in America throughout history.
3.3.4.1 Key personal qualities - Durham University Business School

In the United Kingdom, the Small Business Centre at the Durham University Business School (DUBS) has been actively involved in research on entrepreneurship. A report produced by the business centre (DUBS 1994:1) pointed out the need to understand the personal qualities that are required for an entrepreneur to start and run a business successfully. They focussed especially on the need to create a supportive environment for the entrepreneurial process: "the path of an entrepreneur may be laid out by him but it is constructed and maintained by others" (Jacobs 1991, in DUBS 1994:1).

The report (DUBS 1994:1-2) set out to address a number of questions:

- How is an entrepreneur different from a business owner-manager?
- What are the personal qualities of a successful entrepreneur?
- Why go to the trouble of investigating such qualities?
- Can a tool be developed with which to select individuals who have entrepreneurial potential, with the aim of intervening in such a way as to promote their chances of achieving business success?
- Who will gain from this information and how useful will that be?

The researchers came up with some answers to the above questions. They reflected that entrepreneurs could use this report as a much needed framework to begin the process of self-reflection. It could assist them in becoming aware of themselves and the effect of their behaviour on the development of their business as well as their personal and professional development. As this report provides a framework specifically designed for entrepreneurs and not just as a general assessment of personality, it could serve, to a certain extent, as an objective and impartial tool for organisations in the process of assessing the viability of small businesses as far as the need for venture capital is concerned. In order to develop the individual as well as the business he is involved in, this report also provided a framework against which such training and consultancy interventions could be structured (DUBS 1994:2).
Finally, the report also provided structure to enhance one's understanding of the entrepreneurs one is working with. As resources need to be used skilfully and appropriately, time and attention need to be focussed on the process of raising self-awareness, the development of the individuals in order to achieve job satisfaction, fulfilment and tangible economic outcomes (DUBS 1994:3).

3.3.5 Behaviour and attitude

3.3.5.1 Behaviour - Boshoff and Bennett

Literature surveys show that the traditional approaches to studying the characteristics of entrepreneurs, namely, the trait and biographic approaches, have come to the end of their usefulness in explaining and predicting entrepreneurial behaviour (Boshoff and Bennet 1994:32-33.) Lau (1992, in Boshoff and Bennet 1994:33) approached this new movement away from studying the psychological characteristics by developing a questionnaire that would measure the behaviour and behavioural attributes of entrepreneurs. This seems to correspond with other researchers such as Gartner (1988:11-22), who choose to focus on the entrepreneurial process, understanding what entrepreneurs do and how it is done (Boshoff and Bennet 1994:33).

3.3.5.2 Behaviour - Johnson and Ma

Johnson and Ma (1995:80-81) aimed to identify specific characteristics and behaviour, in order to develop these traits in entrepreneurs who run their own businesses. McClelland (1961; 1987:219-233) provided evidence that a characteristic like achievement motivation could be identified and developed so that the probability of business success could be heightened. Johnson and Ma (1995:81) selected nine dimensions that could enhance the attempts to distinguish between successful and unsuccessful entrepreneurs:

1. Vision
2. Need for achievement
3. Need for autonomy - desire to work for oneself
4. Need for autonomy - willingness to listen to the advice and guidance of others
5. Internal locus of control
6. Opportunistic
7. Creativity and innovativeness
8. Calculated risk-taking - awareness of risk

3.3.5.3 Attitudes - Boshoff and Scholtz

The contrasting findings of many of the studies done on personality traits of entrepreneurs prompted Brockhaus and Horwitz (1986:42) to infer that "the literature appears to support the argument that there is no generic definition of the entrepreneur or if there is we do not have the psychological instruments to discover it at this time." Three problems were identified as far as research on personality traits of entrepreneurs is concerned:
1. "methods for the measurement of personality variables are not specifically developed for research on entrepreneurs;
2. personality theories are meant for a wide spectrum of situations, and psychometric instruments to measure variables included in such theories lose effectiveness when applied to a specified group (e.g. entrepreneurs), due to, among other factors, restricting of range;
3. traditional personality models assume to greater or lesser extent that an individual's personality is formed early in life and is relatively stable - something which should be doubted" (Robinson, Stimpson, Huefner and Hunt 1991:14).

New directions in entrepreneurial research are being investigated as arguments for and against the present research on characteristics are proposed (Gartner 1988:11-32; Carland et al 1984:354-359). Robinson et al (1991:13-31) suggest that attitudes towards entrepreneurship are more specific to the entrepreneurial process and who the entrepreneur is at that particular stage of the life of his business venture, and are deemed more useful in predicting entrepreneurial behaviour.
3.3.5.4 The attitude approach to predicting entrepreneurship - Robinson, Stimpson, Hufener and Hunt.

Identifying entrepreneurs based on psychological traits has been useful up to a point. Some dimensions involved in entrepreneurship, the entrepreneurial process and being an entrepreneur are not captured by applying the trait theory only. Carsrud (Carsrud and Johnson 1989:21-31; Carsrud, Olm and Eddy 1986:367-378) suggested using more progressive psychological paradigms in researching entrepreneurship, as the temporal and situational stability of the psychological paradigm has become restrictive. Theories and methods need to be re-examined in order to account for the dynamic interaction between the entrepreneurial person and the environments (social, financial, technical, economic, managerial, etc.) in which new venture creation takes place. Robinson et al (1991:15) stress the point that “scales developed to measure and predict entrepreneurship should, therefore, incorporate a level of situational specificity not found in current measurement instruments, focussing not only on a specific context but on a specific dimension of the considered concept. This specificity will limit the ability to generalize the findings of the instrument beyond the specific context being considered, but this is no loss because generalizing results beyond the activities related to the target concept is usually inaccurate and inappropriate.” Using attitudes to predict behavioural tendencies becomes more viable than personality or demographic approaches (Robinson et al 1991:13).

Recently, the emphasis in research shifted to an interactive approach when considering human behaviour, implying that human behaviour influences and is influenced by activities in the environment. To apply traditional personality models rigidly limits the predictive value of the trait approach in an interactive context. Robinson et al (1991:15) pointed out that “in cases where interaction is proposed as being part of a personality model, a closer look reveals that the interaction is simply an elicitation of latent behavioural responses (operant type response) based on existing personality dispositions, such as motives, needs, traits, etc. The interactionist position is that, above all else, entrepreneurship involves an individual operating in the environment.” The demographic approach to identifying entrepreneurs yielded ineffective results (Bowen and Hisrich 1986:393-407;
Deivasenapathy 1986:547-555; Hisrich 1990:209-222), with one exception. Past behaviours being the most effective predictors of possible future behaviour, demographic data did specifically describe past entrepreneurial behaviour. Entrepreneurship benefited to its limits within the paradigms of both the traits and demographic approaches. Including the strengths of the previous paradigm, as well as mastering the deficiencies, the attitude approach promises to improve understanding who the entrepreneurs is (Robinson et al 1991:17).

For the purpose of the study done by Robinson et al (1991:17), attitude is defined as “the predisposition to respond in a generally favorable or unfavorable manner with respect to the object of the attitude” (Ajzen 1982:3-15). In order to measure attitude accurately and in a specific domain, one needs to be aware that attitude in terms of achievement in general (general object) differs from attitude in terms of achievements in, for example, an entrepreneurial sense (specific object). Attitude specificity will contribute to measurement specificity accomplishing increased predictability and accuracy.

As far as the nature of attitude is concerned, people seem to have three kinds of reaction to everything. This approach, called the tripartite model (Robinson 1991:17), consists of

1. a cognitive component: beliefs and thoughts a person has about an attitude object (an object being anything from a lifestyle to a person, thing, event, place, mental concept, etc.);
2. an affective component: positive or negative feelings about this object; and
3. a behavioural or conative component: behavioural intentions and predispositions to behave in a particular way towards an object.

Attitude measurement can be domain-specific. This gives it a methodological advantage over the personality approach, because variability is reduced and correlation with behaviour increased. Taking into account the dynamic interactive nature of new venture creation, the dynamic nature of attitude and improved methodology, a more appropriate formation is provided for the development of interactive models of entrepreneurship (Robinson et al 1991:18).
3.3.6 Competencies

McClelland's research (1987:220) found very little empirical proof that identifying specific characteristics predicts entrepreneurial success (see 2.6.2.2). The question arises as to whether, apart from McClelland's need for achievement, successful entrepreneurs could be identified by certain competencies rather than characteristics.

Competencies are defined as "sufficiency of means for living; ability to do, or for a task" (Fowler and Fowler 1973:247).

Instead of focusing on character traits only, McClelland and McBer compiled a competency model based on what business people think about and what they do at certain stages and during certain events in the life of their business (McClelland 1987:223). These thoughts and acts form the core of the particular competency being investigated.

Three groups of competencies were isolated, namely proactivity, achievement orientation and commitment to others (customer satisfaction). A total of nine characteristics serve as the foundation for these three competencies (see 2.6.2.2).

3.3.7 Enterprise competencies

Educationalists have shown interest in enterprise competency once it had become clear that occupational competence, and specifically managerial competence, needed to be improved (Caird 1992:6). In the UK there is concern about the efficiency of student, trainee, employee and managerial performance, referring to specific areas of enterprise competency. However, a need for greater competence in society in general has been suggested by researchers such as Raven (1984), Watts (1983) and Handy (1984). Caird (1990:5) named three reasons for this growing interest in competency:
1. Problems in gaining employment are related to a need to accredit student competencies;
2. Initiatives promoting experiential learning needed to be assessed as far as their educational outcomes are concerned;
3. Potential resources could be established for guiding learning that is inherent in competency approaches to education.

Both education and employment show notable potential for learning to be facilitated and competence to be developed. Caird (1990:5) attempted to define competency as "an abstract, general concept which is significant only when it applied to an area of expertise. Competence depends on the possession of knowledge, skill and appropriate attitudes, and should be confirmed by performance in an activity, job, or area of expertise. However, competency in enterprise is difficult to specify, considering the different educational aims and enterprise activities which are attached to initiatives which educate for, through, or about enterprise."

Caird (1992:6) also referred to competency as being "a set of knowledge, skill and personality variables which relates to successful behaviour in a designated field." She also mentioned the British Training Agency’s description of the nature of competency as being "... the ability to transfer skills and knowledge to new situations within the occupational area. It encompasses the organization and planning of work, innovation and coping with non-routine activities. It includes those qualities of personal effectiveness that are required in the workplace to deal with co-workers, managers and customers." Caird (1990:5) attempted to capture the abstract quality of enterprise competency by pointing out that "the enterprising person is not dissimilar to the competent person. Enterprise and competence both associate empirically with motivation and self-determination, that is, internal locus of control (Rotter 1966:1-28; Arnold 1985:876-888). Furthermore, there are claims that competent behavior is dependent on many enterprise attributes, such as motivation, initiative, responsibility, and risk-taking."

Enterprise is perceived as being a description of a project or a person. A project, in its wider context, includes business (Caird 1990:4). Enterprise competencies are described as specific enterprising
behaviour, focussed on the person more than the project. Johnson (1983, in Caird 1990:4) defined the enterprising person as “someone who sets up and runs a project. The entrepreneur is distinguished from the enterprising person only in terms of an association with a business enterprise.”

There are differences as well as similarities between entrepreneurs and enterprising people (Caird 1990:4). The shared common traits useful in this particular context are initiative; persuasive powers; moderate risk-taking; flexibility; creativity; independence; problem-solving ability; need for achievement; imagination; internal locus of control; leadership; and hard work (Gibb 1987, in Caird 1990:4).

Not enough empirical information exists of enterprising people functioning effectively outside the business context. Identifying general enterprising behaviour requires using the empirical information available on business owners-managers to develop hypotheses about the nature of enterprising people. However, these should be tested on enterprising people. The feasibility of generalising that so-called entrepreneurial character traits could apply to enterprising people outside the small business context is contested (Caird 1990:4-5).

Management performance and organisational effectiveness are complex aspects of economics and organisational behaviour. They are not effectively addressed by merely producing competency lists based on knowledge, skill and attitudes, and presenting these as performance criteria that categorise competency (Caird 1992:7). Another complication regarding the specification of enterprise competency is highlighted. Failure is often experienced by entrepreneurs (Caird 1989:47-59), purely because calculated risk-taking and innovation have failure as a possible implied outcome. Competency, being defined in terms of successful performance (Caird 1992:7), serves as a warning that enterprise competency is not to be narrowed down to limiting performance indicators of success. In order to develop the entrepreneurial spirit those who have experienced failure need to be encouraged and nurtured and the relationship between indicators of successful performance and competency need to be carefully clarified.
Competency-based education differentiates between occupationally-orientated initiatives, which emphasise business skills and knowledge required to initiate and develop business, and life and work skills initiatives (Caird 1989:137-147). The latter include the following, as published by the Department of Employment of the UK (Caird 1992:8-9; Pollard and Triggs 1997:11-14):

**Personal characteristics** - intuition, achievement motivation, entrepreneurial drive, resourcefulness, leadership, autonomy, initiative, creativity, innovation/invention, imagination, ambition, confidence;

**Communication skills** - negotiation, persuasion, communication skills;

**Managerial skills** - group work skills, problem-solving, ability to achieve results, business and resource management, specification and evaluation of performance objectives, task management skills, organising, decision-making, monitoring, evaluation, working to targets within resource constraints, ability to create and exploit opportunities;

**Analytical skills** - numeracy skills, data presentation skills, critical skills, analytical skills;

**Career skills** - self-awareness and assessment, career planning techniques, transferable skills, skill application in a work environment, responsibility for own learning and development, self-directed learning, decision-making responsibility, presentation skills, skills relevant to an enterprise context;

**Knowledge** - computer literacy, information technology, entrepreneurship, knowledge about business (challenge/rewards); and

**Attitudes** - flexible/versatile attitude, powers of perception and observation, sensitivity to needs and consequences.

These skills are categorised as enterprise competencies, and because they cover such a wide range and are non-specific, they do not provide a clear rationale for understanding the meaning of the concept of enterprise competency (Caird 1992:9; Pollard and Triggs 1997:5-8). It is pointed out in Caird’s research that the meaning of the concept of enterprise competency needs to be explored.

Caird (1992:15-16) voiced various concerns regarding the meaning, as well as assessment of “enterprise competency”. This complex “everything and nothing” quality that the concept of
enterprise competency runs the danger of being stuck with, has significant implications for
developmental and educational initiatives, organisational effectiveness, the differentiation between
enterprise education initiatives and entrepreneurial education, and is constantly affected by complex
environmental contingencies.

Caird (1992:14) did however come up with a framework for identifying enterprise competency, in
an effort to provide insights into attempts to define this seemingly illusive concept. She determined
four different areas regarding competency, namely, various -

1. aspects;
2. dimensions;
3. variations; and
4. outputs.

The different aspects of competency are related to specific fields of expertise in specific situations,
these aspects being -

- knowledge;
- performance;
- skill; and
- psychological variables.

These aspects are active within two different dimensions, namely -

1. daily, weekly, general tasks; and
2. a particular, specific dimension

that critically distinguish between people who are more or less enterprising. Variations are expected
as far as the levels of competency are concerned when task completion and performance are
considered. Figure 1 gives the framework in action:
Knowledge and skills requirements may differ from activity to activity. Caird (1992:15), however, hypothesised that “the psychological variables include the important entrepreneurial attributes mentioned earlier, such as:

- strong motivation, governed by a high need to achieve, a high need for autonomy and power with a low need for affiliation;
- behaviour characterised by calculated risk-taking and innovation; and
- self-concept governed by an internal locus of control.”

To add to the complexity of defining enterprise competence, the possibility of failure as part of the demands of calculated risk-taking is always present, as far as entrepreneurial and innovative management is concerned. Burgoyne (1989:68-73; Caird 1992:15) upsets the applecart by pointing out that, in order to accommodate the issue or possibility of failure as part of entrepreneurial and
innovative activities, complex environmental contingencies regularly demand dynamic activity and the development of new competencies.

3.3.6 Entrepreneurship theory

Leibenstein (1987:192) set out to explore the absence of the concept of entrepreneurship in standard economic theory. He looked at the traditional views of economic theorists, which include the phenomenon of equilibrium, concerning market-determined prices as parameters in the system and the archetypical activities of the firm. "The theory is concerned with firm behaviour and not with behaviour inside the firm. How decisions are made in terms of details and procedures is not considered" (Leibenstein 1987:192; Snooks 1996:82-89). The stance that equilibrium implies stable relationships is part of economic theory. The conditions of equilibrium create the possibility to describe the relationships of the enterprise. The role that a person called the entrepreneur has in this process is not considered.

Economics became more refined, focussing on general goal-orientated activities such as maximising profits (Leibenstein 1987:192). The particular characteristics of the entrepreneur carrying out these activities had so little significance for the economist that they were not included in the formal structure. Although Schumpeter (1949, in Leibenstein 1987:193) introduced the entrepreneur as the "agent who upsets the existing equilibrium," because the entrepreneur functions as an instrument of change, economists simply did not question the reason for the upset in the existing equilibrium. Economists do not come across or use entrepreneurship as a variable on a daily basis because it does not appear in the models they use. They do, however, consider entrepreneurship as an important variable, but seem to have little need for it as part of their theories.

Leibenstein (1987:193-194) was faced with three questions:
1. Should entrepreneurship be ignored?
2. If not, where does it belong in existing theoretical structures?
3. Should the structure be changed to allow for a more natural inclusion of the entrepreneurship variable?

Economists did not readily accept McClelland's macro-cultural-economic idea (Leibenstein 1987:194) that "the culture of a country (as reflected in children's stories), influenced people's motivations (as reflected in their Achievement scores), which in turn determined their entrepreneurial drives, which in turn was reflected in their rate of development." Economic activity is performed by people with high as well as low needs to achieve. This variability caused problems when the achievement motive had to be integrated into standard economic theory. The work of Miron and McClelland (1979:13-28) pointed out very specifically that there are techniques available to select persons who could be trained in order to increase their entrepreneurial skills. These people would, given entrepreneurial opportunities, do better than the population in general. Therefore, entrepreneurial input could be increased, which would affect economic growth. "Just as education could not be ignored once it seemed clear that education was important to growth, so entrepreneurship training could not be ignored if it could be shown that such training is possible" (Leibenstein 1987:195.)

Leibenstein (1987:195-196; Snooks 1996:337-344) valued more a theory that "suggests a way to change the world we live in (as with training and selection of entrepreneurs)" than one allowing for the interpretation only of the world. Leibenstein quoted a notable number of studies on specifically entrepreneurial selection and training that show significant increases, over periods of time after training, of starting new businesses, working longer hours, employing more people, monthly sales, higher profit and making investments, to mention a few. From these studies it became clear that a person's level of motivation as regards the undertaking of entrepreneurial activities plays a major role in entrepreneurial selection and training.

Micro-economics need to include the motivational element of entrepreneurship in order to be realistic in terms of content. The economic system creates opportunities that are not always obvious. Entrepreneurs, as potential opportunity-fillers, need to be sufficiently motivated and in possession of
a number of personal qualities, in order to recognise those opportunities, once they have searched for them. Leibenstein (1987:197) short-listed what entrepreneurs need do in order to highlight the fact that motivation is an integral part of entrepreneurship:

- "The entrepreneur finds and fills opportunities between markets. He may have to purchase inputs in one set of markets, transform inputs into produced goods, and sell the outputs in other markets.
- These markets, especially the input markets, are likely to be imperfect in various ways. Thus, the entrepreneur has to overcome obstacles in the market and fill gaps.
- The entrepreneur has to be an input completer. That is, it is not sufficient to overcome some obstacles and fill some gaps, but all of them have to be handled in order to produce outputs for sale. Given the obstacles and gaps that exist, entrepreneurship requires a sufficiently strong commitment to carry out all of the above. Thus, motivation (commitment, perseverance and more) is a critical quality of the entrepreneur, and is critical in determining the stock of entrepreneurial talent."

Leibenstein (1987:198; Snooks 1996:337-344) is convinced that at least some people could be taught to follow detailed procedures (practical detailed steps) in order to achieve reasonable goals.

There are entrepreneurs who are unusually talented. The way in which they go about their entrepreneurial activities cannot be duplicated in order to teach these modes of operation to others. However, Leibenstein stated in this study that it is possible to select individuals who are able to carry out entrepreneurial activities in a more superior manner. They can be taught entrepreneurial skills and motivation can be heightened for them, in order for them to behave in an entrepreneurial manner. Previous training programmes along the same line were done with ordinary people. Leibenstein (1987:200) visualised entrepreneurship as “bundles of activities” that can be applied by ordinary people who were given training and reasonable access to resources. Leibenstein (1987:204) suggested using the “loose inert area equilibrium of X-efficiency theory” (political means to limit competition) allowing ordinary, “non-super talented entrepreneurial types” to enter the industries that exist in the economy, with the hope to succeed. People without unusual skills but with enough
motivation could be trained in order to compete effectively as well as to increase the supply of entrepreneurs in society.

3.3.9 Conclusion

Scholastic achievement does not predict effective life outcomes, namely exceptional job performance and vocational success. Intelligence, aptitude and personality are too limited as factors contributing to effective life outcomes. Non-scholastic general competencies in a number of different areas are also required (McClelland 1973:13) in order for individuals to perform adequately and even successfully in the labour market or within the economy.

Creating a supportive environment for the entrepreneurial process has as possible implications raising self-awareness amongst prospective entrepreneurs and allowing for the development of the individual through training and consultancy interventions towards effective economic outcomes. This is done by addressing the need for an entrepreneur to understand the personal qualities required to start and run a business successfully (DUBS 1994:1), and for that entrepreneur to make the decision to develop those personal qualities further.

New venture creation takes place within the dynamic interaction between the entrepreneurial individual and, amongst others, economic, financial, social, technical and managerial environments. The beliefs and thoughts of a person (cognitive component of attitude) regarding the entrepreneurial process; his feelings (affective component) about this and his behaviour (behavioural or conative component) with regard to this process are the essences of attitude and set the entrepreneurial process in motion. Attitude, therefore, plays an essential role in the individual’s involvement in new venture creation.

Personality variables, communication skills, managerial, analytical and career skills, knowledge and attitude are deemed enterprise competencies. More research needs to be done on enterprise
competencies, as they cover a wide range, are non-specific and do not clearly spell out the meaning of the concept of enterprise competency (Caird 1992:9).

In order to allow more individuals to take their places in society as entrepreneurs and, therefore, creators of employment, the fact that entrepreneurship can be taught needs to be recognised. Once entrepreneurial skills and motivation have been taught, an increase in entrepreneurial activities can be expected. (Leibenstein 1987:196.)

Personal qualities indicative of attitude need to be identified in order to measure them and to determine the need for development of these qualities through training. Qualities that are consistently identified are motivation (mAch), calculated risk-taking, internal locus of control, need for autonomy, opportunism, creativity and innovation, and vision. In the next section of this chapter, research on what has already been done in terms of measuring entrepreneurship, entrepreneurial attitude and who the entrepreneur is will be discussed.

3.4 MEASURING ENTREPRENEURSHIP

3.4.1 Introduction

As interest in entrepreneurship as a possible career choice and career path developed and increased, different identification techniques and measurements were developed. The following measuring instruments used by psychologists and economists in the last few decades will be discussed briefly in the next part of this chapter:

- Interviewing
- Questionnaires
- A combination of interviewing and questionnaires
- An entrepreneurial game
- Traditional measuring instruments used at school level in South Africa.
3.4.2 General measuring instruments suitable for identifying entrepreneurship

3.4.2.1 Interviewing

Many ideas exist on interviewing and various methods of applying interviews are available. Specific interviewing approaches that were used mainly for identifying entrepreneurial attitude and entrepreneurship are focused upon in this section. These approaches are those of McClelland and McBer (McClelland 1987:222-234), Caird (1990:5-8; 1992:13-14), Boshoff and Robinson (Boshoff 1995:2-9) and Solomon and Winslow (1988:165-170).

Core competency Model: Behavioural Event Interview (BEI) - McClelland and McBer

McBer and Co.(McClelland 1987:222) undertook an empirical research investigation in order to answer the question that kept arising about other possible key character traits needed for entrepreneurial success. They needed to establish whether certain competencies were more characteristic of successful than average entrepreneurs.

Knowledgeable people within communities were requested to identify the most successful entrepreneurs known to them, as well as those who were deemed average. McBer (McClelland 1987:223) applied a method he had developed, called Behaviour Event Interview (BEI). Businessmen were asked during an interview to describe the life storms of their businesses as well as their thoughts and actions about good and bad stages of the businesses. Those acts and thoughts were then coded in order to serve as an illustration of specific competencies.

It was found that nine competencies in general were more significantly characteristic of successful entrepreneurs than of average entrepreneurs (see Table 2.2, point 2.6.2.2). Noteworthy were competencies such as self-confidence, persistence and more (see Table 2.3, point 2.6.2.2) that were not more significant for successful than for average entrepreneurs. The fact that a number of well-known personal characteristics contribute to an entrepreneur being successful was not empirically
proven by this study. McClelland (1987: 226-228) discussed a number of possible limitations involved in this study. Empirical proof could not be found that external variables, such as previous work experience, childhood background, hours worked per week and others correlated significantly with business success. McBer followed this up with a second study, this time targeting more competencies (thirteen) and using a number of questionnaires additional to the BEI. However, it does seem as if questionnaires and inventories simply failed to indicate more or less success as far as entrepreneurship was concerned. Interview data provided better results, due to the spontaneous responses received from the entrepreneurs, giving an indication of thought patterns and behaviours, rather than having to decide between preset answers.

McClelland suggested that these improved methods should be used to select and train prospective entrepreneurs. He made a strong case for promoting economic development by allowing for "a critical mass of competent, highly motivated entrepreneurs ... they will find the resources needed for development ... they will need less in the way of resources than people who are provided with resources but who do not have the personality characteristics that we now know are crucial for entrepreneurial success" (McClelland 1987:232-234).

*Competency identification techniques*

Caird (1990:5) warned that "enterprise competency" could mean "everything and nothing" when communication on enterprise took place. She suggested identifying competencies in a strict manner by specifying what it means to have competence in enterprise. Setting standards for enterprise competence (by educationalists) would precede the use of competency identification techniques. This would be a positive step towards developing operational definitions for the concept "competence".

McClelland (1973:1-14) also gave advice on how to approach the assessment of competency. He recommended that:

- "competent behaviour should be analysed into components;
- incremental changes in competency should be outlined;
ways to improve a competency should be made explicit;
- transferability to other situations should be assessed;
- initiative as well as response should be noted;
- and the assessment focus should be formative and progress-driven. However, the assessment of enterprise competency depends on a clarification of its nature."

Caird pointed out that different competency identification techniques were used to look at "enterprise competencies" in different activities. Excellence in occupational behaviour is assessed by using the Critical Incident Technique, and calling up information on general and specific job competency requirements by using the Job Function Analysis Techniques. She also mentioned Behaviourally Anchored Rating Scales (BARS) and Morgan's Action Research approach. Each of these four techniques will be mentioned briefly.

1. **Critical Incident Technique**
   Competent and average employees were selected to describe critical incidents they had come across in their jobs. Because the focus was on competency as excellence, the general dimensions of competency could not be determined (Caird 1990:5).

2. **Job Function Analysis**
   This technique provides the identification of job tasks or task functions required by entrepreneurs that are needed to perform tasks such as marketing, finance, finding premises and so forth. This technique focuses on job functions only and not on the personality variables displayed by the performer. They provide information on what people do, and not on how a job might be performed better. They do not indicate the complex reality of competent performance. They could, however, be useful for curriculum development (Caird 1990:5).

3. **Behaviourally Anchored Rating Scales (BARS)**
   Rating Scales are used to identify criteria that supervisors and personnel managers apply to
estimate effective or ineffective performance. The question that arose was whether supervisors' ability to observe behaviours, recognise effectiveness and establish valid indicators for efficient performance was reliable. Caird (1992:13-14), however, pointed out that when the rating scales had been developed for particular situations, they have the capacity to assess competencies appropriately.

4. Morgan’s Action Research

This approach focuses on competency development based on organisational strategies and is done by self-reflective enquiry and managerial team work. (Morgan 1988, in Caird 1992:14). Relevant competency and organisational needs of entrepreneurs are identified and allow training and development programmes to be drawn up.

The four techniques that have been discussed briefly have both strengths and weaknesses. Useful information can be gathered for the drawing up of training and development programmes when using the Critical Incident Technique and the Job Functional Analysis Techniques. BARS could be used to observe and rate the achievement of participants in training and development programmes, and enterprises could benefit from identifying specific developmental needs within their organisations by using the Action Research Approach (Caird 1992:14).

However, self-, peer and teacher assessments of enterprise competency were used instead of traditional standardised, objective approaches. Participants are informed about their progress based on criteria rather than on norms. Prospective business owner-managers and students have different enterprise competencies that are targeted for assessment. For students, accreditation and qualifications are important. Business ventures, whether successful or failing, are the true enterprise competencies to be assessed. Therefore, to identify training needs and competencies, based on business principles, is the important assessment issue in the case of entrepreneurs.

Caird (1990:6) suggested that assessment approaches should be relevant to specific enterprise activities. She indicated that the assessment of enterprise competency still had a long way to go,
especially in terms of clarifying the meaning of enterprise competency. She also indicated a need for the development of a "theory of enterprising behaviour which could aid understanding of the relation between enterprise competencies and enterprise activities and behaviour" (Caird 1990:8). She stated too that "while recognising some subjective issues, rating scales could offer educationalists a useful procedure for building up an understanding of enterprise competency which could inform curriculum development and enterprise education and advisory programs" (Caird 1992:14).

**Entrepreneurial Attitude Orientation Scales (EAOS) - Boshoff and Robinson**

Robinson et al (1991:13-31; Boshoff 1995:2) developed the EAOS to measure attitudes towards innovation, personal control, self-esteem and achievement in business. These four attitude subscales (Robinson et al 1991:19) are:

1. *Achievement in business*, referring to concrete results associated with the start-up and growth of a business venture.
2. *Innovation in business*, relating to perceiving and acting upon business activities in new and unique ways.
3. *Perceived personal control of business outcomes*, concerning the individual's perception of control and influence over his business.

The EAOS is based on the tripartite model of attitude (see The Attitude Approach, point 3.3.5:85). During research done in the USA, the EAOS differentiated successfully between entrepreneurs and non-entrepreneurs. Boshoff and Scholtz (1995:3) set out to investigate the validity and reliability of the EAOS in South African conditions. Entrepreneurs, engineers and managers formed part of the sample group. A field worker visited the respondents personally and the EAOS was completed in the presence of this field worker. Item analyses were carried out. The EAOS was modified and shortened, in order to deal with problems which could arise when using scales developed in one culture in another culture.
From this study it was once again found that achievement and innovation are confirmed constructs involved in entrepreneurship (Boshoff and Scholtz 1995:8; also see 2.3.3:40). Successful and unsuccessful entrepreneurs, as well as entrepreneurs in manufacturing and non-manufacturing ventures, do differ significantly. The same applied to entrepreneurial subgroups and other occupational groups. Boshoff and Scholtz (1995:9) declared that “the approach developed by Robinson et al (1991:13-31) i.e. measuring attitudes towards certain constructs, must be seen as potentially very valuable and a major step forward in research in the entrepreneurship field.” Robinson et al (1991:24) pointed out that, as far as the four constructs measured by the study were concerned, educators and practitioners in the entrepreneurial education and training programmes could influence feelings, thoughts and behavioural intentions. Entrepreneurial attitudes, just like attitudes in general, are subject to change.

*Interview protocol - Solomon and Winslow*

Solomon and Winslow (1988:165) formulated the purpose of their study as follows: “With the admittedly selective review of the literature and opinion, we developed a structured interview and sought entrepreneurs to respond. The purpose was to explore various contentions and to clarify those elements which could lead to more definitive and precise variables to clearly focus further research.”

A structured interview was developed, based on those areas mentioned most often in current literature. The researchers aimed to capture the free range of responses from the participants within the structured format; they wanted the participants’ responses in their own words; and they deemed an interview protocol as an immense source of information. Entrepreneurs were selected, based on the researchers’ definition of who the entrepreneur is: “one who starts and is successful in a venture and/or project that leads to profit (monetary or personal) or benefits society.” (Solomon and Winslow 1988:164.)
Sixty-one entrepreneurs were interviewed and their responses written down word for word. Ten major categories were covered. These were covered by questions such as (Solomon and Winslow 1988:166-170):

1. What led the person to start his own business?
2. What is the best thing about being an entrepreneur?
3. Are you a risk-taker?
4. What type of activities, hobbies or sports do you engage in?
5. How do you define success?
6. With whom do you like to work and socialise?
7. What are your personal assets and liabilities?
8. What ideas do you have for the future?
9. How do you approach competition?
10. What is your advice to potential entrepreneurs?

Solomon and Winslow (1988:170) worked from the premise that entrepreneurs were not "simply a different breed", and neither were they completely exceptional (Winslow and Solomon 1987:202-213). They found that the group of entrepreneurial participants were confident and optimistic; were not reckless and would calculate risks; preferred not to have their performance judged by others; and chose to be independent and rely on themselves. Success was not related to great wealth, but rather to independence, self-satisfaction, enjoyment, being service-orientated and experiencing a sense of self-worth. Exploring the areas of personality and social psychology of entrepreneurs would contribute towards a greater understanding of the phenomenon of who the entrepreneur is, as well as providing a means by which individuals and organisations could realise their dreams (Solomon and Winslow 1988:168-170).

3.4.2.2 Questionnaires

Questionnaires are instruments regularly used to identify entrepreneurship and entrepreneurial attitude. Once again, the work of specific researchers became prominent from the literature study
undertaken by this researcher. The questionnaires used by the following researchers are discussed in this section: King (1986:399-413), Boshoff and Bennet (1994:33-40), Hull, Bosley and Udell (1980a:11-18), Seiz and Schwab (1992:496-498), and Ievers (1991:25-67).

**Enterprise potential - King**

King (1986:399-400) drew attention to the retrospectivity of definitions on who the entrepreneur is: “A person is defined as an entrepreneur because of something done, rather than something they are capable of doing.” In King’s opinion, the individual’s greater awareness of his own entrepreneurial potential is immensely valuable to himself and to society. Potential entrepreneurs need to be encouraged to identify when opportunities arise, and to grasp those opportunities that may arise, fully aware of their own entrepreneurial strengths and weaknesses. “Entrepreneurship, however, is certainly not for everybody ... The decision to go into business for oneself must be made in an objective, deliberate and comprehensive manner. It is necessary to evaluate the pros and cons of a particular business venture, and to make a realistic assessment of personal market resource capabilities. A well-thought-out decision process coupled with a heightened awareness of one’s own personality traits is believed to enhance greatly the probability of entrepreneurial success” (King 1986:400).

The entrepreneurial spirit of a nation shapes, to a large extent, the standard of living and contributes significantly to social progress. Identifying potential entrepreneurs early implies their being more aware of their natural tendencies when beginning their careers. This might be a practical approach to breaching the complex nature of entrepreneurship (King 1986:400-401).

King aimed to make it possible for the individual to identify and understand character traits. These are, as per King, essential for becoming a successful entrepreneur. Individuals completed paper-and-pen questionnaires on behaviour and attitude. Instructions were given on the scoring of the questionnaires as well as on comparing profiles and responses to those developed by established entrepreneurs, in groups (King 1986: 401-409).
King warned that the instrument used for this study was not necessarily a clear indicator of potential entrepreneurial behaviour (King 1986: 412). Very few entrepreneurs possess the dominant characteristics identified by Timmons (1979:199) as typical of successful entrepreneurs. King (1986: 413) regarded the profiles that individuals could compile from the information they had gathered from the questionnaires as providing them with the "ability to see shortcomings and to capitalise on one's own strengths". He warned, however, that the impact of situational factors should not be viewed lightly.

*Lau Incident Questionnaire - Boshoff and Bennet*

Boshoff and Bennet (1994:33) set out to find answers to the following two questions:

1. What underlying concepts are measured by the Lau Questionnaire?
2. Is there a connection between the scores of the Lau Questionnaire and the biographic characteristics of the respondents?

Boshoff and Bennet (1994:33) pointed out that very few measuring instruments had been developed for studying entrepreneurs, entrepreneurship and the entrepreneurial process, and they aimed, with their own particular study, to apply the Lau Questionnaire to cultures other than the one it had been developed in. The Lau Questionnaire sets out to measure fifteen elements of entrepreneurial and intrapreneurial behaviour (Boshoff and Bennet 1994:34).
TABLE 3.1: Behaviour attributes measured by the Lau Entrepreneurial Behaviour Questionnaire:

<table>
<thead>
<tr>
<th>Designation</th>
<th>Scale ends</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation</td>
<td>Innovation vs. stabilisation</td>
</tr>
<tr>
<td>Formal structure</td>
<td>Informal vs. formal structure</td>
</tr>
<tr>
<td>System conformity</td>
<td>Reliance on informal methods (self) vs. reliance on formal system</td>
</tr>
<tr>
<td>Change/status quo</td>
<td>Preferring changes vs. status quo</td>
</tr>
<tr>
<td>Budget control</td>
<td>Using loose budgetary control vs. tight budgetary control</td>
</tr>
<tr>
<td>Opportunities</td>
<td>Exploiting opportunities vs. reacting to problems</td>
</tr>
<tr>
<td>Networking</td>
<td>Reliance on network vs. depending on given resources</td>
</tr>
<tr>
<td>Hierarchy</td>
<td>Preferring no hierarchy vs. hierarchy</td>
</tr>
<tr>
<td>Working style</td>
<td>Working alone vs. with others</td>
</tr>
<tr>
<td>Risk-taking</td>
<td>More risk-taking vs. risk aversion</td>
</tr>
<tr>
<td>Result orientation</td>
<td>Concern about short-term result vs. long-term result</td>
</tr>
<tr>
<td>Integration</td>
<td>More integration vs. more specialisation</td>
</tr>
<tr>
<td>Formal control</td>
<td>More informal control vs. formal control</td>
</tr>
<tr>
<td>Degree of control</td>
<td>More loose control vs. more tight control</td>
</tr>
<tr>
<td>Management skills</td>
<td>Preference for flexibility in management vs. formal management technique</td>
</tr>
</tbody>
</table>

Information was also gathered regarding the backgrounds of the respondents, who were all South African managers. It was one of the aims of Boshoff and Bennett to determine whether there was any correlation between biographic factors and entrepreneurial behaviour. The four factors identified as describing the behavioural preferences of the respondents were Results Focus, Adaptability, Control and Personal Reliance. It was also found that there was no significant correlation between any of the biographical variables and intrapreneurial or entrepreneurial behavioural preferences (Boshoff and Bennett 1994:39).

As the Lau Questionnaire seemed to have measured behaviours typical of entrepreneurs, Boshoff and Bennett (1994:40) suggested that it could possibly be useful to understand entrepreneurial behaviour.
Personality Characteristics - Hull’s Heffalump

Hull, Bosley and Udell (1980b:11) focussed on education as a means of increasing awareness and interest in students who chose entrepreneurial careers. They set out to monitor methodologically the impact of entrepreneurship and innovation courses at the University of Oregon. A need was identified to develop a reliable measure with which to obtain information about the entrepreneurial activities of the former students of that university, to determine the number of students who later become entrepreneurs and to identify entrepreneurs by personality characteristics (Hull et al 1980b:14). They decided on a mail questionnaire as an interim measure of which the possible uses could be:

- to function as a career guidance tool for tertiary institutions;
- to function as an investment risk assessment guide to the financial community; and
- to identify “entrepreneurial” employees for industry (Hull et al 1980b:12).

The survey instrument consisted of a personality inventory of forty-one items which were intermingled and which covered the following seven scales:

1. interest in “money or fame” as goals in life;
2. the tendency to give “socially desirable” (conformist) responses;
3. task preferences in relation to entrepreneurship;
4. Levenson’s Internal Locus of Control Scale;
5. Risk-taking propensity;
6. Creativity and

Reaction to courses and attitude scales (dependent variables) were analysed in terms of four basic independent variables, which were:

1. participation in small business and innovation courses (yes vs. no);
2. ownership of a business (some vs. none);
3. experience with creation of a business (yes vs. no); and
4. plans to create a business (yes vs. no) (Hull et al 1980b:14).
Some interesting observations were made after during the survey. Asking several questions regarding the likelihood (low, moderate, high desire) of starting a business had an effect on the percentage of responses to each. The more specific the questions became around future plans for starting a business, the more the percentage of responses dropped. For example, about 55% of the respondents indicated that they would like to start a business (no time span indicated). This number dropped to about 13% who indicated that it was “highly likely” for them to start a business in three years’ time. This was one of the dependent variables that yielded useful results (Hull et al 1980b:16).

Independent variables, such as the risk scale, the creativity scale, functional job elements of recruiting key people and setting organisational objectives and goals (Hull et al 1980b:17), did significantly differentiate as far as the likelihood of starting a business in three years was concerned. A revised questionnaire could include items measuring frustration tolerance and leadership tendencies. Items that relate to functional activities characteristic of entrepreneurs and others that do not, have been changed from a rating scale to a forced-choice scale (Hull et al 1980b:17).

The results of the University of Oregon Survey identified the following personality traits as possible indicators of entrepreneurial types of individuals:

- Preferences of functional activities
- Specific personality constructs, namely:
  - Creativity - Risk - Flexibility
  - Frustration Tolerance - Persistence

However, Hull et al (1980b:18) pointed out the need to develop definite means of measuring and identifying the above character traits.
Likert-Scaled Personality Inventory - Seiz and Schwab.

Seiz and Schwab’s study (1992:496) set out to report on the differences in personality characteristics of clinical private and non-private social workers. They recognised the mutual, interchangeable links and reciprocal relationships that exist between the role of personality traits influencing behaviour and the immediate environment. When comparing the motivational factors prominent in social workers starting private practices with those of entrepreneurs involved in venture creation, Seiz noticed many similarities (Seiz and Schwab 1992:497).

Social workers registered as advanced clinical practitioners (ACPs) in Texas, were targeted. Questionnaires were mailed and 642 were returned. The group consisted of solely private practitioners (165); non-private practitioners (268); and combination practitioners (155). The questionnaires were self-administered, twelve-page documents containing a 46 Likert-scaled personality inventory (Hull et al 1980b:11-18, 1980a). The following four subscales were assessed:
1. risk-tolerance/creativity,
2. frustration-tolerance/persistence,
3. resistance to standard operating procedures/leadership, and

It was found that social workers with private practices only, when compared with social workers employed at agencies (non-private practice), were more persistent and creative, tolerant of risks and frustrations, and resisted standard operating procedures. The three groups were found not to have scored significantly different for locus of control and need for achievement. Seiz and Schwab (1992:499) ascribed this to the fact that all participants successfully completed a graduate programme as well as having been professionally active in their specific field of employment for at least five years. Private practitioners only, scored significantly higher than their non-private equal, on risk-tolerance/creativity. Barker (1984:37) confirmed the risk element involved in having a private practice when he stated that a private practice is “a venture filled with financial as well as professional
risks. The rewards sought are never guaranteed and rarely as generous as anticipated. The hazards are guaranteed and are often more serious than expected."

Significantly higher levels of frustration-tolerance/persistence were once again found with solely private practitioners. These are traits they needed especially during the initial stages of building a practice and marketing their services. Their desire for autonomy was proved by their being significantly more resistant to standard operating procedures.

Setting out and starting one's own business, whether it is a private practice on a professional level or a small business venture, requires specific emotional and psychological personality traits from the person (Peek and Plotkin 1951:177). Personality traits determine to a large extend the way in which people behave and act. This was proved by the way social workers with a particular personality type left the agency setting and started private practices.

*The Eysenck Personality Profiler - G.F. Ievers*

Eysenck (Eysenck and Wilson 1989, in Ievers 1991:25-27) designed this instrument to measure psychological characteristics. Three dimensions, namely:

1. neuroticism/emotionality,
2. psychoticism/tough-mindedness, and
3. extraversion/introversion,

were identified in order to define a person's personality substantially. (Ievers 1991:25.)

Ievers (1991:27) intended to use the scores on individual scales to identify traits more characteristic of subgroups and to establish the relation between these and entrepreneurial types. He suspected that the difference between different kinds of entrepreneurs could be just as big as the difference between entrepreneurs and the population in general.
Questionnaires were mailed and fifty-four of the returned responses were used. From the results it became apparent that there are definite subgroups of entrepreneurs who scored significantly differently from other groups and entrepreneurs in general on psychological and other scales (Ievers 1991:62). In terms of the full sample, Ievers (1991:63-64) found strong ambition to be a notable characteristic of the study’s group of participants. Strong ambition is closely connected to McClelland’s high need for achievement as associated with entrepreneurs. Ievers (1991:67) concluded his study by stating that “a real attempt can be made to create profiles of successful entrepreneurial types for at least some groupings. Comparing the profiles of potential entrepreneurs against these profiles will assist in determining their suitability for a particular field. The Eysenck Personality Profiler system has this facility.”

3.4.2.3 Using both the critical interview technique and questionnaires/paper-and-pen techniques.

The work done by Durham University Business School (1994:3-20) and by Johnson (Johnson and Ma 1995:81-84) as well as Langan-Fox and Roth (1995:210-216) will be discussed under this heading.

*General Enterprising Tendencies Test (GET) - contribution by Durham University Business School (DUBS)*

The report compiled by the Durham University Business School (1994:3-4) mentioned the wide variety of disciplines, which include psychologists, economists, management theorists, sociologists and anthropologists from different countries and diverse cultures, that contributed to the literature available on entrepreneurship. For the purpose of the report of the Business School the focus was on developing a tool useful to the entrepreneur in terms of self-awareness and development, and also to interested parties involved in training, supporting and supplying consultative interventions.
When the tool was developed, the diverse backgrounds from which entrepreneurs came were taken into account, as well as the lifestyles of both the individual who would be using it and the entrepreneur. As the tool focussed on behaviour more than personality, the entrepreneur's awareness of his behaviour and its effect on the performance of his business should be increased. This would give the entrepreneur an opportunity to change such behaviour.

The DUBS (1994:5-7) identified nine commonly found characteristics that distinguish the successful from the unsuccessful entrepreneurs. These characteristics or dimensions are:

1. vision;
2. need for achievement;
3. calculated risk-taking (awareness of risks);
4. calculated risk-taking (risk-taking strategy);
5. internal locus of control;
6. need for autonomy (doing it my own way);
7. internal locus of control (openness to advice and guidance);
8. opportunistic;
9. creativity and innovation.

Having a model of what a successful entrepreneur probably is about, based on nine key personal qualities, the researchers set out to explore validity and reliability and to develop a tool that could be applied by practitioners who work in the field. They did two investigations. One was focussed on developing a behaviourally based assessment tool (BARS) and the second one on developing a method for selecting and training prospective entrepreneurs on new business start-up programmes (GET).

1. Behaviourally Anchored Rating Scales (BARS)

The background to this investigation can be summarised as follows (DUBS 1994:8): "Many studies of entrepreneurs have focussed upon personality traits and attitudes in an attempt to
identify what distinguishes a successful from a non-successful entrepreneur. On many occasions the actual behaviour of the entrepreneur has been excluded from the analysis. This investigation sought to overcome that deficit and develop an intervention specifically designed to facilitate behavioural change. In essence to develop a tool which would provide information for entrepreneurs, and those who work with them. Information which would be meaningful and enable the entrepreneur to consider changing this behaviour in a direction which would enhance the potential of the business to succeed."

The sample consisted of sixteen graduate business start-ups, who were participating in a programme facilitating business start-up and development among graduates. A wide range of commercial sectors were represented, the businesses being at various stages of development. Advisory panels, as integral parts of the facilitating programme, were restructured in order to provide data for the investigation. The involvement of the advisory panels with the participants was in the form of a critical incident interview, where it was noted what the participant said, and how he described his reaction to events. This was done keeping in mind the nine dimensions identified as model for this investigation. Six months after the interviews the participants were ranked in terms of performance and the development of their businesses; questionnaires based on various aspects around venture creation and management were completed; and rankings were based on the information gathered during the interview in terms of the measures of business performance (DUBS 1994:9).

Although this seemed to be a labour-intensive methodology, the BARS did provide a way in which the development and performance of the business, as well as behaviour as opposed to personality characteristics, could be incorporated. Significant evidence was found that business performance correlated with the entrepreneur exhibiting vision, need for achievement, calculated risk-taking (strategy), opportunism, creativity and innovation. Business performance showed a moderate relationship with internal locus of control and need for autonomy (openness to advice).
Based on the results of the investigation, the Behaviourally Anchored Rating Scales seem to provide a reliable and valid tool for assessing entrepreneurial potential amongst small business owners (DUBS 1994:15).

2. General Enterprise Tendency (GET)

Useful information on the personality and behaviour of entrepreneurs was gathered by using a battery of psychometric tests. However, a need was experienced for an instrument specifically focussing on entrepreneurs and business development. Such an instrument has been developed at DUBS (1994:16) and is known as the General Enterprising Tendency Test (GET). It has been developed in collaboration with the BARS, focussing on the behaviour of entrepreneurs/business owners-managers, catering for time and resource constraints often experienced in industry and the labour market.

The nine dimensions identified for the BARS also formed the foundation for the GET, and used the concepts and language known to the business-owner/entrepreneur. The questionnaire consisted of 54 items and was administered to 100 individuals involved in a programme facilitating start-up businesses. In order to take into account business performance, an issue that had not been researched previously, 50 questionnaires were completed by participants who had already completed the training programme and were in business. Another 50 questionnaires were completed by participants who had also completed the programme, but were no longer in business.

It was found that there is significant correlation between entrepreneurs who displayed behaviour covered by seven of the dimensions, namely, need for autonomy (own way); need for achievement; creativity and innovation; opportunistic; locus of control; calculated risk-taking (strategy) and vision, as well as successful business performance (DUBS 1994:17-18).
This tool will be valuable in selecting and training prospective entrepreneurs involved in their own venture creation. The questionnaire is even more useful, as it could assist in analysing training needs. "Business development and personal development are inextricably intertwined and whilst the focus of this report has been upon business development implicit, within the interventions suggested is an aim to increase the personal awareness of the people who run their own businesses with a view to making that more fulfilling and satisfying for them. If we can achieve personal development business development will follow automatically" (DUBS 1994:20).

New questionnaire following GET - Johnson

Problems were encountered as far as reliability and validity are concerned with the use of the General Enterprising Tendency test (GET) developed at Durham University Business school (Johnson and Ma 1995:81). Because no such psychometric instruments had been available at the time, Johnson and Ma decided to develop a new instrument focussing on the behaviour of entrepreneurs and business owner-managers.

A 54-item questionnaire was produced. It was administered to 100 persons who had been part of a specific scheme for the development of new ventures. Half of these persons were still involved in business and the other half were not. (Johnson and Ma 1995:82.) The researchers structured the sample in such a way that they could also get an account of the performance of the respondents' businesses.

The two groups were found to have measured significantly differently on seven of the nine dimensions. Insignificant levels were found for need for autonomy - willingness to listen to advice and guidance of others and calculated risk-taking (awareness of risk). These results proved powerfully that this measuring instrument could identify that entrepreneurs would probably be more successful in running a business if they scored higher on constructs such as "need for autonomy - own way, need for achievement, creativity and innovation, opportunistic, locus of control, vision and
calculated risk-taking-strategy." (Johnson and Ma 1995:83.) Although the need for a longitudinal study would strengthen the validity of the instrument, it could be invaluable in selecting and training prospective entrepreneurs in the process of new venture creation, as well as for a training needs analyses. (Johnson and Ma 1995:83-84.)

Survey questionnaire and individual interview based on well established psychological measures - Langan-Fox and Roth

Langan-Fox and Roth (1995:210) set out to -

- investigate the psychological attributes and motivations of founder women, including an exploration of McClelland’s ideas regarding the relevance of particular achievement (entrepreneurial) variables as well as power (managerial) variables; and
- to establish and test the existence of female entrepreneurial ‘types’ statistically. It was hypothesized that at least one of the ‘types’ would be dominant in both achievement and power motivations.”

Sixty business women who had founded their businesses themselves or with a partner formed the sample. They completed a survey questionnaire and participated in an individual interview. The survey questionnaire consisted of the following psychometric measures (Langan-Fox and Roth 1995:211):

- Achievement Motivation scale (Lynn 1969:529-534), which measures achieving values.
- Four subscales of Kahl’s (1965:669-681) achievement values questionnaire: (a) trust, (b) primacy of the business, (c) activism, (d) independence.
- Rotter’s (1966:1-28) Internal-External Locus of Control scale.
- Hoppock’s Job Satisfaction scale (McNichols, Stahl and Manley 1978:737-742).
- Four Bennett subscales from Bennett’s (1988:361-394) Index of Personal Reactions: (1) resistance to subordination, (2) san Influence, (3) san Power, (4) ability to influence/have power.
The individual interview was done by administering the Thematic Apperception Test (TAT) during which four cues were given with the aim of eliciting need Achievement. Based on the scores from these measures, Managerial entrepreneurs were found to score highest of the three types on internal locus of control, san Achievement (values, used on a relatively conscious level, for evaluation), job satisfaction and planning for career. The Pragmatist group of entrepreneurs had practical, pragmatic and economic reasons for pursuing entrepreneurship as a career option. They, however, formed 56.6% of the sample. The Need Achiever entrepreneurs scored lowest on job satisfaction, san Achievement, need for influence, activism (planning for a career), need for power, and san Power. One third of the sample scored high for need achievement and nearly two thirds at least moderately for nAch. This confirmed McClelland’s finding that nAch is significant to entrepreneurship (Langan-Fox and Roth 1995:216). Langan-Fox and Roth pointed out that “the finding that a major proportion of the sample have a combination of ‘common’ managerial and entrepreneurial motivational dispositions is strong evidence to suggest that McClelland and Burnham’s (1976:100-110) theoretical distinction between the motivations of managers and entrepreneurs may be oversimplified. In the absence of other research, this interpretation may be peculiar to this particular sample or to females in general.” (Langan-Fox and Roth 1995:216.)

3.4.2.4 An Entrepreneurship Game/Virtual Reality

Entrepreneurship Game - Low

Low, Venkataraman and Srivatsan (1994:393-385) posed the question whether developing an entrepreneurship game would be useful for research and teaching. From a teaching perspective a game would provide “the opportunity to explore the emotional and intuitive dimensions of entrepreneurship.” Entrepreneurship education also requires opportunities where learning needs to take place through DOING. From a research perspective, an entrepreneurship game could allow for detailed exploration and examination of certain aspects of the entrepreneurial process: a useful, methodological tool.
Low et al (1994:385-386) defined entrepreneurship as the mobilisation of resources in pursuit of opportunity (Stevenson and Gumpert 1985:85-94). They summarised what they had found in literature on entrepreneurship as follows and then posed a question: “One theme that runs through the entrepreneurship literature is that uncertainty and asymmetric distribution of information are critical sources of entrepreneurial opportunity. Problems of uncertainty and information asymmetry lead to market failures, which give rise to enterprising individuals who exploit the situation for personal gain. This in turn restores market efficiency and increases social wealth. This perspective begs the question, How do entrepreneurs themselves overcome the problems of uncertainty and information asymmetries?” The answer they came up with indicated that entrepreneurs overcome uncertainty and information imbalances by creating relationships. These relationships are at the basis of setting up a profitable business. Within the entrepreneurial process a pattern of relationships is developed, leading to successful venture creation. This process takes place in a competitive market where not all entrants can be sustained. The entrepreneur has to apply trust-building mechanisms through cumulative trust-building activities in order to secure enough resources to “take off.” (Low et al 1994:386.)

The entrepreneurial process is therefore viewed by these researchers as a dynamic “tournament among competing entrepreneurs” for “scarce resources”. Entrepreneurs need to apply particular objectives and skills, such as deal-making, negotiations, contact networking and ethical assessment in order to secure more resources. Attracting stakeholders is deemed a basic entrepreneurial task (Bhide and Stevenson 1989, in Low et al 1994:387-389). The game that was developed allows students to gain skills in these areas as well as affording them a realistic, controlled opportunity for an integrated learning experience.

The Entrepreneurship Game was designed as part of an MBA course and is to be played over a period of five to seven days, outside the classroom setup. In order to create competitive conditions certain criteria are set up, such as a market not large enough to support all entrepreneurs; the same opportunity had, amongst others, been identified by various entrepreneurs. Participants complete a pre-game questionnaire requiring information on demographics and other issues. Instructions are
then given. The entrepreneurs have to compete for customers and resources in order to break even as far as their business is concerned, and they must assemble a team consisting of at least one engineer, a marketer, an investor and a supplier. Specific ground rules are set out for each type of player (Low et al 1994:387-389).

When the next class period commences, the game ends. A second questionnaire is completed by the participants on how the game was played. Discussion follows regarding observations of strategies used by the participants. Networking, deal making, trust building and strategy are also discussed in general.

It became obvious that the game required refinement as a teaching tool. Students felt that the connection between behaviours during the game and the outcomes of the game was not sufficiently obvious (Low et al 1994:391). From a research perspective it was found that individual trustworthiness and profit potential were greatest during inefficient markets, these being conditions where institutional trust and availability of information were low. The game provided an inexpensive way to dissect some issues around the transactions set, which gave an indication of critical relationships between trustworthiness and entrepreneurial success.

In respect of further research, Low et al (1994:396-397) pointed out three dimensions that are regarded as predictors of entrepreneurial success:

1. **personal characteristics** - each of these could be explored within the game for its predictive value to indicate success;

2. **behaviours and strategies** - strategies and activities of players as well as patterns of interactions, all prominent in determining failure or success, could be contrasted;

3. **social network position** - manipulating structural network positions of players, by placing certain restraints on certain interactions, could provide opportunity to study these dimensions. (Cooper and Gascon 1992, in Low et al 1994:396-397).
Low et al. (1994:397-398) learned valuable lessons from their attempt to design a game appropriate for both research and teaching, and they offered various tips for consideration in designing similar games. They were, however, encouraged by the success they had experienced with the Entrepreneurial Game and encouraged others to use this methodology as well.

3.4.3 Traditional measuring instruments - school specific

In the South African context, and specifically when counselling prospective and young school leavers, psychologists used the Self-Directed-Search Questionnaire and the Jung Personality Questionnaire.

3.4.3.1 Self-Directed Search (SDS)/J.L. Holland’s Occupational Choice Theory.

Holland’s occupational choice theory (1985a, in Levinson 1990:220) links self-information to occupational information (its structural dimension) and is based on the assumption that the interaction between person and environment leads to the choice of a career and accompanying social behaviour (interactive dimension). Holland (1973, in Levinson 1990:219-222) had various reasons for developing an occupational theory:

- To organise and integrate the unclassified literature available on occupational choice, stability and performance.
- To encourage research.
- To make possible the practical implementation of already existing knowledge concerning occupational choices.
- To attempt the prediction of occupational behaviour.

In order to construct a theoretical occupational choice model that was appropriate or useful when implemented in vocational guidance, he used his practical experience as a counsellor. He was encouraged by the research done by Guilford (in Holland 1973:5). Using factor analysis, Guilford found six main factors representing the wide fields of interest and personality traits. Similar personality typologies were also described by earlier researchers (Spranger 1928; Adler 1939;
Sheldon 1954, in Levinson 1990:222). The six personality types that Holland identified and described in his theory are: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. Similar to these personality types he also defined six types of environments.

Figure 2: Holland's six types of personality and work environments (Gevers, Du Toit and Harilall 1996:4.)

Holland (1985a, in HSRC 1990:5-7) had four assumptions on which he based his occupational choice theory:

1. Occupational choice is an expression of personality. As man's emotional life (needs) determines his interests, and interest is a dynamic factor of personality (Guilford 1959). The type of personality a person has, is confirmed by his interests and occupational preferences. Holland assumed that an interest questionnaire is to some extent a personality test. Van der Westhuizen's (1979:116) definition of a personality test can be used to support this assumption, as it states that personality is "the measurement of structural as well as dynamic personality traits such as interpersonal relationships, motivation, interests, attitudes and emotions. Bordin's (1943:49-65) view, namely, that interest questionnaires are measurements of the self-concept, and the hypothesis of Staat (Holland 1985a, in HSRC 1990:6) that a person's interests offer a better explanation of this personality, further convinced Holland that interest is an extension of an individual's personality and life history, and that the choice of an occupation is consequently the reflection of an individual's personality in a job context."
2. Most interest questionnaires tend to accept that occupational stereotypes exist in certain occupational environments.

3. Persons in specific occupations have corresponding personalities and their developmental histories are often similar.

4. The occupational behaviour of persons in the same occupational environment and who reveal the same personality characteristics are inclined to be the same in most situations.

The SDS questionnaire was developed in order to estimate the degree to which a person shows similarities with each of the six personality types. The three types the person corresponds most with are indicated and expressed by means of a three-letter code. Similarly, the occupations a person chooses are also coded and divided into six categories that are known as environmental types. It has been found that a person most often chooses an environmental type suitable to his personality type. Generally it is expected that when a person’s personality type and environmental type match, he should be successful and satisfied if his chosen occupation corresponds with these two requirements too (HSRC 1990:17).

Although Holland (1985a:15-18) discussed personality development in his work, Osipow (1983, in HSRC 1990:18) identified the fact that Holland does not explain the how and why of specific personality type development as a shortcoming in his theory. Neither does Holland provide techniques according to which vocational guidance can be undertaken. Osipow highlighted this as another shortcoming of Holland’s theory.

The aim of the SDS is to measure interest and to fit into the structure of Holland’s theory in terms of career choice and career guidance. A person will indicate his preferred activities (activities), the skills he has or is familiar with (competencies), the careers of interest to him (occupations) and his assessment of his own abilities (rating of abilities/skills) (HSRC 1990:1). The first edition of the SDS questionnaire was published in America in 1970, and was administered in South African conditions in 1987. The sample consisted of 4 842 Black, Indian and white grade 9 and 11 learners. It is meant for high school learners (grade 9, 11, 12) and has the following purposes (HSRC 1990:3):
In career counselling, to determine a person's occupational interests.

- In business or industry for the purpose of career job classification.

- In the occupational world, to study the occupational possibilities.

- To determine an individual's personal development by re-administering the questionnaire after reasonable periods of time.

Levinson (1990:224) regarded the SDS as an appropriate personality assessment instrument, of which the results provide the counsellor/school psychologist with a range of potentially viable occupational alternatives, without reducing options that could result in inappropriate decision-making. He also called attention to the fact that the user of this questionnaire should have some knowledge of Holland's theory and the strategies Holland provides for interpretation. The SDS, however, would provide vocationally specific information in a comprehensive manner when used in conjunction with other psycho-educational assessment data, such as an intelligence scale and academic achievement.

3.4.3.2 Jung Personality Questionnaire (JPQ)/Jung's Personality Typology/Jungian Psychology and Vocational Choice

Jung (1923, in Du Toit 1983:1) devised a theoretical framework for a personality typology which is still practical and useful in our present-day set-up. He included in this framework his concepts of the attitudes of extraversion and introversion and the psychological functions of thinking, feeling, sensing (sensation) and intuiting (intuition).

He views personality as the mind (the psyche) in action. Conscious and unconscious processes, thought, feeling and behaviour are involved as a dynamic whole. A person's consciousness, the only part of his own mind known to him, is directed by one of two contrasting basic attitudes, either extraversion or introversion (Du Toit 1983:33). These two attitudes are mutually exclusive. A person may act as an introvert on one occasion, but as an extrovert on another. However, one of these two attitudes will exert more control than the other throughout a person's life. The weaker attitude will be suppressed into the unconscious.
Jung differentiated between these two attitudes as well as between four psychological functions within the structure of personality. The way in which a person makes contact with his environment is described by one of these four psychological functions. "Thinking and feeling are called rational functions because they both require an act of judgement; sensation and intuition are irrational because they do not require an act of reasoning (Du Toit 1983:37), but of perception." Jung's definition of the four functions are: "These four functions correspond to the obvious means by which consciousness obtains its orientation to experience. Sensation (i.e. sense perception) tells us that something exists; thinking tells you what it is; feeling tells you whether it is agreeable or not and intuition tells you whence it comes and where it is going" (Hall and Nordby 1974:99-100). Each person keeps in touch with his environment by using his best developed function. Fordham (1953:34-35) illustrated this as follows: "Just as the lion strikes down his enemy or his prey with his forepaw, in which his strength resides and not with his tail like the crocodile, so our habitual reactions are normally characterized by the application of our most trustworthy and efficient function; it is an expression of our strength. However, this does not prevent our reacting occasionally in a way that reveals our specific weakness. The predominance of a function leads us to construct or seek out certain situations while we avoid others and therefore to have experiences that are peculiar to us and different from those of other people."

At this point it becomes clear that these functions are developed by individuals, whether consciously or unconsciously. This developmental aspect has particular implications for entrepreneurship and entrepreneurial attitude, as well as for the possibility of training entrepreneurs.

When the above principles of processes, attitudes and functions, based on Jung's theory of personality, are applied, eight personality categories are formulated. (Du Toit 1983:39-39.) Extraverts are deemed the people who are leaders in society and the business world. Extraverted intuitive type of individuals prefer "vocations in which possibilities can be fully exploited, like the vocations of businessman, entrepreneur, speculator, stockbroker and politician. With women this characteristic manifests itself in a social as well as professional context." (Du Toit 1983:42-43.) Fordham (1953:43) highlighted who the individuals are who creatively made use of strange situations
lacking established values, concepts and facts: "Scientists and physicians, inventors, certain classes of business men and politicians, judges and generals all must make use of this faculty at times and of course ordinary people as well." (Du Toit 1983:42.)

The JPQ provides useful information on personality types that is applicable in vocational guidance. Research done by Briggs Myers (1962, in Du Toit 1983:3) "has shown that there is a strong significant relationship between personality type and vocational preference, as well as vocational satisfaction and success. It is well known that extraverts prefer working in situations which provide ample opportunity for dealing with other people and that introverts work best in comparative isolation. Similar, equally strong relationships have been found to exist between the psychological functions and certain vocations." The JPQ gives a fairly simple, but accurate profile of the personality type of an individual based on Jung's personality typology. This questionnaire, however, is not suitable for a proper personality analysis. The personality profile derived from the questionnaire may be useful for vocational guidance. However, the vocational classifications have not yet been verified in South African conditions (Du Toit 1983:5). Du Toit anticipated, however, that using the JPQ together with an aptitude test and an interest inventory, would provide significant information for guidance counselling.

The JPQ is a criterion-referenced test. No norm tables are given. Du Toit (1983:11) pointed out that "a criterion-referenced test classifies a person with more extraverted than introverted characteristics as an extravert in any society, irrespective of the distribution of this trait in the population; the testee's scores are not interpreted in terms of the scores of other testees."

The main aim of the manual of the JPQ is to aid the vocational counsellor at school level.

The JPQ consists of 75 items and was administered to a sample of 3384 English and Afrikaans-speaking grade 9, 10 and 12 learners in 1980. The testee has to decide which of two alternative tasks he would prefer to do. This would give an indication of the more strongly developed
attitudes/functions in a testee. From the results in 1980 it seemed as if the data may be “interpreted as an indicator of the predictive validity of the test” (Du Toit 1983:25).

As far as the manual is concerned, one should be aware of the fact that “every personality type gives preference to and is associated with success in a certain kind of vocation and profession” (Du Toit 1983:35). “It should be pointed out that the classification of careers and vocations according to the above personality categories has not yet been validated in South Africa. Research in overseas countries has, however, substantiated the highly significant relationship between both job satisfaction and vocational success on the one hand and vocations classified according to Jung personality categories on the other hand.” (Briggs Myers 1962, in Du Toit 1983:47-48.)

3.4.4 Conclusion

To identify prospective entrepreneurs, one needs to focus on basic business principles and base the identification of training needs and competencies on these. Entrepreneurial attitude, as is the case with attitude in general, can be changed. Educators and practitioners have an impact on feelings, thoughts and behavioural intentions by means of entrepreneurial education and training programmes (Robinson et al 1991:24).

The individual would benefit greatly from being more aware of his own entrepreneurial potential. Becoming aware of these natural tendencies at the beginning of their careers would allow them easier access to the complex nature of entrepreneurship (King 1986:400-401). This awareness allows them to see their shortcomings and to use their strengths, while also being aware of the effect of the environment on their development as entrepreneurs.

People’s behaviour and actions are largely determined by the personality traits they possess. An awareness of what specific emotional and psychological personality traits are required at different stages of the development of the business could allow the prospective entrepreneur to prepare in terms of his own shortcomings and strengths. This would also afford the prospective entrepreneur
an opportunity to change his behaviour and actions, which would then affect the performance of his business.

The selection and training of prospective entrepreneurs involved in creating their own small businesses is the aim of the GET. Training needs analysis can also be done by using the GET. The two traditionally used measuring instruments - the SDS, the JPQ - are useful when used together with other instruments such as aptitude and intelligent tests. They are however not focussed specifically on identifying the prospective entrepreneur within the business environment.

3.5 SUMMARY

Measuring entrepreneurial attitude is no longer a plain and simple process of letting a prospective entrepreneur complete a personality or interest questionnaire. Biographical factors do have an impact on the decision-making process of a prospective entrepreneur. Loss of status due to political change and pressure, specifically, may have a significant impact on school leavers choosing entrepreneurship as a viable option for entry into the labour market.

Intelligence, aptitude and personality alone are too limited as factors contributing towards effective life outcomes, that is, adequate job performance and vocational success (McClelland 1973:13). Non-scholastic general competencies are also required. School leavers need to become aware of the personal qualities required to start and run a business successfully and the fact that these can be developed. The particular attitude and behaviour resulting from those qualities play an essential role in the entrepreneurial process.

Personality traits or personal qualities, attitude and behaviour function in close relation to each other, the one affecting the other. Attitude and behaviour can change, and this has significant implications for educators and practitioners. The fact that entrepreneurial skills, too, can be acquired through
training leaves one with the task of making school leavers aware of the fact that they might have what it takes to generate their own income. Starting their own businesses becomes a viable career option.

In order to raise awareness of the school leavers' own entrepreneurial potential, and then put them on the road to develop these strengths and weaknesses, an appropriate measuring instrument should be identified. This instrument would highlight the specifically entrepreneurial constructs that were identified in the literature, namely, vision, need for achievement, calculated risk-taking, internal locus of control, need for autonomy, opportunism, and creativity and innovation.

The GET seems to be the most appropriate instrument to use in order to raise awareness of personal entrepreneurial qualities, to explore the fact that certain qualities need to be developed and to get an indication of the effect that entrepreneurship training and/or economic education has already had on grade 11 learners in terms of their career choices. In the next chapter the way in which the research programme has been planned will be discussed. How the GET will be used and the specific research methodology will also be spelled out.
CHAPTER 4

EMPIRICAL RESEARCH METHODS AND STRATEGIES USED TO IDENTIFY ENTREPRENEURIAL ATTITUDE.

4.1 INTRODUCTION

This chapter consists of a discussion of the research. It describes the research method, the sample, the measuring instrument used and the method of collecting and gathering information.

4.2 AIMS AND OBJECTIVES OF THE RESEARCH DESIGN

4.2.1 Primary aim

This study aims to identify a measuring instrument that is practical, useful and relatively simple to apply and interpret for educators and school counsellors in South Africa, and which will raise awareness of entrepreneurial attitude and/or entrepreneurship as a career option.

4.2.2 Secondary aim

The secondary aim of the study is to identify and discuss what constitutes an entrepreneur generally and in the South African context specifically. Profiling an entrepreneur will assist in determining whether a learner or school leaver has what it takes to become an entrepreneur and to what level of proficiency these attributes are available.
4.2.3 Tertiary aim

The study also aims at determining what entrepreneurship and entrepreneurial attitude are and how these contribute to who the entrepreneur is.

Attempts will be made to determine who an enterprising person is and where such a person fits into the concept of entrepreneurship. This study will also look at what enterprise competency is and whether and how this concept contributes towards entrepreneurship.

4.3 DEMARCATION OF THE PROBLEM

4.3.1 General problem

How useful and practical are the measuring instruments that have been and are being used to identify entrepreneurial attitude and will they raise awareness of entrepreneurship as a career option in a secondary school set-up?

4.3.2 Hypotheses

The following hypotheses will be tested:

**Hypothesis One:** There is a significant difference between the number of grade 11 learners who were exposed to Economic Education and/or Entrepreneurship Training and the number of learners who have not been exposed to this within the school curriculum.

**Hypothesis Two:** Awareness of entrepreneurship as a possible career choice has been raised significantly due to unemployment.
Hypothesis Three: There is a significant dependence between the entrepreneurial attitude of grade 11 learners and the enterprising work environment as a career choice, indicated by these learners.

4.3.3 Specific problems

The researcher also needs to address the following:

- What is entrepreneurial attitude?
- How do entrepreneurship, entrepreneurial attitude and who the entrepreneur is, fit together?
- What selection criteria (measuring instruments) have been used to identify entrepreneurship, entrepreneurial attitude and who the entrepreneur is?

4.4 RESEARCH METHOD

"All data, all factual information, all human knowledge must ultimately reach the researcher either as words or numbers." (De Vos, Strydom, Fouché, Poggenpoel, Schurink and Schurink 1998:15.) Whether the researcher will use a quantitative, a qualitative or combined quantitative-qualitative approach will be determined by the nature of the research data and the problem for research (Leedy 1993:139). A very simplistic description of these two approaches was given by Leedy (1993: Parts 3 and 4) when he identified qualitative research methodologies as dealing primarily with verbal data, and quantitative research methodologies as dealing primarily with numerical data.

For this study, a group of grade 11 learners completed a questionnaire. This questionnaire allowed them access to information that should raise their awareness of the level of their own entrepreneurial attitude. The selection of the sample was kept relatively uncomplicated.

For the purpose of the research aimed at in this study, the focus was on the prospective school leavers. The prospective school leaver were deemed to be grade 11 learners for a number of reasons:
Traditionally, grade 12 learners are seen as prospective school leavers. However, the researcher reasoned that the educational programme of grade 12 learners is too busy to be interrupted by activities other than academic activities.

Grade 11 does serve as the foundation upon which grade 12 is built and will therefore suffice as representing prospective school leavers.

Grade 11 learners from three different secondary/high schools were targeted. The three schools concerned were:

- Linpark High School - an urban technical school, which has learners from all race groups and represents the population of South Africa to some extent.
- Edendale Technical High School - a semi-rural technical school. This school has only African learners and the learners are from families living in township conditions.
- Zibukezulu High School - a semi-rural co-ed school, which is regarded as representative of many thousands of secondary schools in townships all over the country. The learners are African and from communities surrounding the school.

The primary qualifying factor for learners to be part of the sample was that they had to be in grade 11 at the particular stage of the assessment. It was assumed (although not necessarily correctly) that those learners were able to read and understand English, as the questionnaire is in English. The fact that the three schools were in an urban and a semi-urban area (Pietermaritzburg Central and Edendale, a large township west of the central business area of Pietermaritzburg) was taken as sufficient proof that learners were at least relatively competent English second language users. These three schools also offer Business Economics and/or Economics as school subjects up to grade 12 level.

All the grade 11 learners of each school completed the questionnaire. This means that every grade 11 learner who was present on the particular day that the researcher visited the specific schools were included in the sample. A total of 271 learners were assessed: 85 from Linpark, 56 from Edendale and 130 from Zibukezulu.
4.5 INSTRUMENT OF ASSESSMENT

4.5.1 The questionnaire

A questionnaire is one of the data collection methods pertinent to the quantitative approach. A questionnaire may consist of open or closed questions or statements to which the testee must respond. The different types of questionnaires are -

- mailed or posted questionnaires;
- telephonic questionnaires; and
- group questionnaires (De Vos et al 1998:89).

As far as group-administered questionnaires are concerned, the following issues are relevant:

- It is preferable that each testee should receive the same instructions and that the discussion that the fieldworker/researcher will have with the groups before the completion of the questionnaires (more than one group may be involved), is the same for each group. The testee should also complete his own questionnaire without discussion with any of the other members of the group.

- One of the great advantages of administering a group questionnaire is the saving of cost and time. The group of testees is handled and exposed to the same stimuli simultaneously.

- One of the disadvantages of this method is that some testees may not understand some of the instructions and/or questions. They may be too embarrassed to ask for assistance in front of the group. Their answering those problematic questions inconsistently may effect the validity of the data.

- Another practical factor that may play a role in using questionnaires is that testees can only use questionnaires if they can read, can be motivated to read the questionnaires carefully, answer honestly and have knowledge of the issues addressed in the questionnaire (De Vos et al 1998:155-156).
4.5.2 The General Enterprising Tendencies Test (GET)

4.5.2.1 Background

The researcher first became aware of the existence of the GET when she attended the Fifth Annual South African Entrepreneurship Education Forum in Durban, KwaZulu-Natal in July 1997. She was, at that stage, looking for a practical measuring instrument that was simple to apply and interpret by lay people, and used in South Africa. Richards Bay Minerals, a large company supporting the Entrepreneurship Education Initiative (EEI), has a Business Advice Centre based in Empangeni, KwaZulu-Natal. With the permission of Durham University in the United Kingdom, they adapted the GET, a pencil-and-paper questionnaire, for use on computer. They have been using the results of the GET to indicate general enterprising tendencies (Blacklaws and Botha 1997:35-37).

The GET seems to be -

- simple to apply;
- useful for both individuals and groups; and
- can be marked and interpreted right after completion by the testee himself or by using the computer.
- It provides clear indications of high and low scores, therefore, strengths and weaknesses.
- It indicates what the needs of testees/learners are that can be developed.

The historical development of the GET and its place within the plethora of psychological measuring instruments were mentioned in Chapter 3, 3.4.2.3.

4.5.2.2 Description of the test

The developers of the GET, Durham University Business School (DUBS 1994:4), set out to develop a tool that -
- can be used by anyone wanting to work with entrepreneurs;
will provide information to both user and testee;
> will offer structure and direction to any training and supportive intervention;
> is user-friendly;
> focuses on behaviour instead of personality, enabling the testee/prospective entrepreneur to change his behaviour if he so chooses (DUBS 1994:4); and
> can be used as the basis or a training analysis (DUBS 1994:18).

The GET is a “directive pencil and paper test, which asks the respondent to rate predetermined test items which represent attitudes, preferences or habitual behaviours” (Caird 1991:76). The test consists of fifty-four items, half of which are responded to positively and the other half negatively, in order to determine enterprising tendency. The test takes more or less ten minutes to complete. There are no right or wrong answers and a forced choice format was used. Testees either AGREE or DISAGREE with each statement. This format facilitates self-assessment (DUBS 1994:77).

Table 4.1 contains a list of items for each of the five categories/sections/entrepreneurial attitudes that indicates the definite presence of a particular entrepreneurial attitude. A section contains numbers followed by either a 1 or a 2 in brackets, e.g. 21(2). The number 21 is the number of the block on the questionnaire into which the testee writes his response. In this specific case, the block marked 21 is next to question/statement 1, block 22 next to question 2, and so on. The number in brackets, e.g. 21(2), indicates the “correct” response to the statement. In this case, 2 = DISAGREE, was the “correct” response.

<table>
<thead>
<tr>
<th>Table 4.1: Key to various sections on entrepreneurial attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 1: Need for achievement</td>
</tr>
<tr>
<td>21(2); 39(2); 57(2); 30(1); 48(1); 66(1)</td>
</tr>
<tr>
<td>26(1); 44(1); 62(1); 35(2); 53(2); 71(2)</td>
</tr>
<tr>
<td>Section 2: Need for autonomy/independence</td>
</tr>
<tr>
<td>23(2); 41(2); 59(2); 32(1); 50(1); 68(1)</td>
</tr>
<tr>
<td>Section 3: Creative tendency</td>
</tr>
<tr>
<td>25(2); 43(2); 61(2); 34(1); 52(1); 70(1)</td>
</tr>
<tr>
<td>28(1); 46(1); 64(1); 37(2); 55(2); 73(2)</td>
</tr>
</tbody>
</table>
The GET was one of the measuring instruments used by Durham University Business School in a number of investigations (Cromie and O'Donoghue 1992:66-73). The developers stated that “the validity and reliability of the questionnaire will be investigated further by a longitudinal study” (Tim Atterton, Durham University Business School, e-mail, 6 June 2000) and these research results are not available yet. However, the developers at Durham University Business School found the GET to be a useful research tool.

From the literature study done in Chapter 2, it was found that entrepreneurial behaviour and skills can be taught. The entrepreneur's behaviour and activities arise from a particular mind-set, namely entrepreneurial attitude (Donckels and Miettinen 1990:33-73). Entrepreneurial training and experience are vital as far as entrepreneurship is concerned (Ross 1987:78). The developers of the GET set out to develop a tool that focuses on behaviour and attitude, more than personality traits (DUBS 1994:4). When an individual becomes aware of his behaviour, he may choose to change that behaviour. In the case of entrepreneurship, and specifically as far as the GET is concerned, the developers found that the individual became aware of the level of his own entrepreneurial attitude and behaviour. One would also expect that being exposed to this kind of personal information would make individuals aware of entrepreneurship as a career option. Therefore, the GET seemed to be an appropriate measuring instrument for use in this research study. It seemed practical, useful and relatively simple and can be applied and interpreted by teachers and school counsellors. The information gathered from this questionnaire allows for raising awareness of entrepreneurial attitude and of entrepreneurship as a possible career option.

In addition to the original GET, the researcher added two sections to the questionnaire she intended to use for her research:
1. An information part that gives general instructions also as far as the answering format of the rest of the questionnaire is concerned;

2. Personal Information - requiring the following:
   - Age
   - Gender
   - Home language
   - School
   - Family structure
   - Whether the testee knows anyone who has started their own business or who is a business person.
   - Whether the testee has been exposed to economic education, e.g., Business Economics and/or Economics as school subjects, or to Entrepreneurship Training.
   - Whether the testee expects to find employment after school or once he has completed tertiary training.
   - Whether the testee considers generating his own income once he has completed school and/or tertiary training.
   - Whether the testee has a clear idea of what he wants to do once he has finished school.
   - The testee is also asked to indicate his interest in six broad work environments (with job preferences and career options mentioned for each). Holland’s Occupational Choice model was used to bring order to the plethora of careers and job preferences one can be confronted with if a question like the above is left open ended (Holland 1985a:4-18; also see Chapter 3:123-126).

The rationale behind these personal questions is that these are factors that play a significant role in the career development of an entrepreneur (Boshoff et al 1992:51; also see Chapter 3:69-74). The statistical data gathered from all this information may contribute towards the significance, for this particular study, of some of these factors that were found in the literature.
4.5.2.3 Scoring and interpretation

The GET was developed and compiled in such a way that the respondent can score, self-assess and interpret his own results. When a response is "correct", one point is given, and a maximum score of fifty-four can be achieved. Richard Branson of Virgin Airways scored 53 out a possible 54, the highest known score (Blacklaws and Botha 1997:36). The test results reveal the testee's entrepreneurial profile within five broad categories (See Table 4.2, below). Maximum and average scores are given for each of the categories. This provides the testee with information that will give him an idea of the level of his personal entrepreneurial attitudes. Each category is made up of a number of qualities. These qualities are the following for each category, as was taken from the questionnaire:

<table>
<thead>
<tr>
<th>Table 4.2: Entrepreneurial categories/attitudes and respective qualities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SECTION 1</strong> Need for achievement</td>
</tr>
<tr>
<td><strong>Maximum score - 12; Average score - 9</strong></td>
</tr>
<tr>
<td>If you have scored well here, you have many if not all of the following qualities:</td>
</tr>
<tr>
<td>Forward looking</td>
</tr>
<tr>
<td>Self sufficient</td>
</tr>
<tr>
<td>Optimistic rather than pessimistic</td>
</tr>
<tr>
<td>Task orientated</td>
</tr>
<tr>
<td>Results orientated</td>
</tr>
<tr>
<td>Restless and energetic</td>
</tr>
<tr>
<td>Self confident</td>
</tr>
<tr>
<td>Persistent and determined</td>
</tr>
<tr>
<td>Dedication to completing a task</td>
</tr>
</tbody>
</table>
**Section 2. Need for autonomy/independence**

*Maximum score - 6;  Average score - 4*

The person who scores high in this section:

- Likes doing unconventional things
- Prefers working alone
- Needs to do their “own thing”
- Needs to express what they think
- Dislikes taking orders
- Likes to make up their own mind
- Does not bow to group pressure
- Is stubborn and determined

**SECTION 3. Creative tendency**

*Maximum score - 12;  Average score - 8*

A high score in this section means that you:

- Are imaginative and innovative
- Have a tendency to daydream
- Are versatile and curious
- Have lots of ideas
- Are intuitive and guess well
- Enjoy new challenges
- Like novelty and change
### SECTION 4  Moderate/calculated risk taking

**Maximum score - 12; Average score - 8**

If you have done well in this section, you tend to:

- Act on incomplete information
- Judge when incomplete data is sufficient
- Accurately assess your own capabilities
- Be neither over nor under-ambitious
- Evaluate likely benefit against likely costs
- Set challenging but attainable goals

### SECTION 5  Drive and determination

**Maximum score - 12; Average score - 8**

If you have achieved a high score in this section, you tend to:

- Take advantage of opportunities
- Discount fate
- Make your own luck
- Be self-confident
- Believe in controlling your own destiny
- Equate results with effort
- Show considerable determination (Also see Appendix A:233)

### 4.6 PLANNED COURSE OF THE RESEARCH INVESTIGATION

During 1998 the researcher made contact with Tim Atterton of the Durham University Business School (DUBS), UK and arranged for the use of the GET in this study.

Two hundred and seventy-one learners were tested. The two requirements for the testees to be part of the sample were that:
1. they had to be grade 11 learners; and
2. they had to be able to read and understand English.

The researcher explained the aim of her involvement with the learners, namely, that they needed to complete a questionnaire on entrepreneurship. She assisted them in completing section B (Personal Information) by reading through each question with them. She discussed the procedure for answering the GET questionnaire and allowed them time to complete the test.

The scoring, assessing and interpretation of the test in groups were time-consuming. Yet, a number of learners verbalised their surprise and delight about the information and insight they had gained regarding their own entrepreneurial attitude.

4.7 SUMMARY/CONCLUSION

This chapter contains a description of the design of the study, the rationale for using the GET, the sample and a brief description of the procedure and the course of the investigation. What follows in the next chapter are the empirical findings related to the investigation that was described in this chapter.
CHAPTER 5

EMPIRICAL FINDINGS RELATED TO IDENTIFYING ENTREPRENEURIAL ATTITUDE AND RAISING AWARENESS OF ENTREPRENEURSHIP AS A CAREER OPTION.

5.1 INTRODUCTION

In this chapter, the results that were obtained from the analysis of the data gathered for the purpose of this study are presented and discussed in relation to the hypotheses formulated in Chapter 1 and 4. The primary objective of the data analysis was to determine whether the measuring instrument used did indeed identify entrepreneurial attitude and, in doing so, raise awareness of entrepreneurship as a career option. A summary of the responses that were obtained through the gathering of data is provided (Suchanandan 1988:116).

Responses were obtained quantitatively. A questionnaire was implemented using grade 11 learners from three different high schools. A statistical computer program and procedures, such as frequency tables and cross tabulations, were used in analysing and describing data. A short discussion of each follows.

5.1.1 Statistical computer program

A statistical computer package, SPSS - 9.01 for Windows, was used by statisticians at the Computer Support Department of UNISA.
5.1.2 Descriptive statistics

5.1.2.1 Frequency distributions

In order to make sense of the chaos of raw data, scores are tabulated into frequency distributions (frequency tables). A distribution is made up of scores being grouped into convenient class intervals and each score being recorded in the appropriate interval. This information can also be presented graphically in the form of a pie chart or a distribution curve (histogram or polygon) (Anastasi 1966:78). Such a curve indicates where the largest number of cases or scores are located. Most distributions are human traits, ranging from physical attributes (age, height and others) to personal attitudes (personality characteristics, interests and others), and closely resemble a normal curve (Anastasi 1966:79).

5.1.2.2 Cross tabulations

In order to compare the scores of one kind of data (e.g. language, or gender) with another (e.g. expectation to find employment) the probability values are set up in cross tabulations.

5.1.2.3 Measuring central tendency

The single representative score that characterises the performance of the whole group is the average, technically known as the “mean” (M). The mean is calculated by adding all scores and dividing the sum by the number of scores entered (N = sum of the frequencies/scores) (Anastasi 1966:79).

5.1.2.4 The Pearson Chi-Square

This calculation was employed when using cross-tabulations in order to determine dependence. This procedure tests whether there is a dependence between two variables. The Pearson Chi-Square, $p \leq 0.05$ is significant and $p \leq 0.01$ is highly significant. Therefore, a $p = 0.08$, for example,
will be inconclusive and \( p = 0.009 \) will be highly significant. The Pearson Chi-Square was calculated by using the SPSS - 9.01 for Windows Program. To enhance the meaning of the resulting scores, graphic presentations of percentages were used as well. (Suchanandan 1988:117.)

5.2 COMPOSITION OF THE QUESTIONNAIRE USED IN THIS STUDY

5.2.1 Additional sections

The researcher added two sections to the original GET (see Appendix A). The questionnaire, as was used in this study, consisted of three sections:

5.2.1.1 Section A: Instructions

This is a step-by-step guideline on the process of indicating responses or answers to all the different questions asked (Section B) and the statements made (Section C).

5.2.1.2 Section B: Personal Information

Eleven individual questions were posed. The information gathered in this section gave an indication of personal issues regarding every learner or testee. A short discussion of each question and the rationale behind each follows below:

**Question 1: Age (in completed years)**

Learners were under no obligation to write their names on the questionnaire. The only piece of real, personal information was the request to indicate their age. Grade 11 learners are generally between the ages of 16 and 18. The ages of this sample varied between 15 and 24.
Question 2: Gender

Studies on the gender of entrepreneurs rendered opposing views extending from definite differences to no significant differences (Boshoff et al 1992:54-55. Also see Chapter 3, 3.2.2). The researcher was interested in discovering the attitude of the two gender groups towards entrepreneurship. This questionnaire was completed by 183 males and 88 females.

Question 3: What language do you speak at home?

English, Afrikaans, Zulu, Xhosa and other ethnic languages were the options learners had to consider in answering this question. The researcher wanted to establish what different communities and even cultural groups the learners from the sample represent, as language or race was not a prerogative in selecting members for the sample. Culture, immigrations, minority groups and displacement are all factors influencing entrepreneurship (see Chapter 3, 3.2.2). The researcher was interested in finding out what the reaction of various language users were to issues such as finding employment after school.

The sample consisted of 50 English home language users, 18 Afrikaans home language users, and 202 Zulu, Xhosa and other ethnic home language users. The researcher found that the significance of statistical results was compromised because there were too many categories/options for certain questions. With the assistance of the statistician at the Computer Support Centre, certain categories were grouped together under one heading (e.g. “Zulu, Xhosa and other ethnic home language users” became “Zulu and Xhosa”). The Pearson Chi-Square test then done on the various issues gave significant scores once the categories to the various questions had been grouped together.

Question 4: What school do you go to?

The researcher chose three schools from different areas within the Pietermaritzburg district in KwaZulu-Natal, in order to compare the presence (or absence) of entrepreneurial attitude and
awareness of entrepreneurship as a career option amongst learners at the various schools. Eighty-five learners were from Linpark High School, 56 were from Edendale Technical High School and 130 were from Zibukezulu High School.

**Question 5: Are you from a:**

*single parent family (Mother/Father)*

*a complete family (Mother and father)*

*foster family or guardian (no parents/not in the custody of your biological parents)?*

Learners had to indicate what their family set-up was. The researcher needed to establish what the effect of various family configurations are on entrepreneurial attitude, if any. Ninety-seven learners were from single families, 142 from complete families and 32 not in the custody of their biological parents.

**Question 6: Who do you know that started their own business or who is a businessman/businesswoman? (Eight options: Mother, Father, Brother, Sister, Relative, Friend, Yourself, None.)**

The rationale behind this question was to determine what effect exposure to the world of business had on the attitude of the learners and their willingness to consider entrepreneurship as a career option. Once again the large number of options provided contaminated the results. The same principle was applied as had been done with Question 3 - options were grouped together and a more significant result became available. One hundred learners knew family who were business people, 93 knew relatives and acquaintances and 78 knew nobody. Thus, 193 knew someone involved in the business world.
Question 7: Have you been exposed to:

*Economic Education, e.g. Business Economics and/or Economics as school subjects
*Entrepreneurship Training
(at school or elsewhere)
*Both of the above (1 + 2)
*None of the above (1 + 2)?

The researcher wanted to determine whether exposure to this kind of education and training affected entrepreneurial attitude. A hundred and one learners had been exposed to economic education and/or entrepreneurial training (these two concepts will be referred to as “entrepreneurial education” for practical purposes) and 170 had had no such exposure.

Question 8: Do you expect to find employment after school or once you have completed tertiary education?

In the first place the researcher wanted to establish what the expectations were of grade 11 learners in terms of finding work. That would give an indication of how informed learners were of the realities of the labour market. A hundred and fifty-three expected to find employment and 118 did not.

Question 9: Do you consider generating your own income once you have completed school and/or any tertiary training?

The reasoning behind this question was to determine whether entrepreneurship and/or an awareness that one can generate one’s own income are options that learners or prospective school leavers consider. One hundred and seventy learners considered these as options, 101 did not.
Question 10: Do you have a clear idea of what you want to do once you have finished school?

The researcher wanted to find out whether learners had made a career choice, that is, whether they knew what they were going to do once they had left school. The three options at Questions 8, 9 and 10 complicated the results in the sense that the “unsure” option seemed to be unnecessary. The same principle was applied as had been done with Question 3. The “no” and “unsure” responses were grouped together and the results considered were for “yes” and “no” responses only. A hundred and fifty-six learners had a clear idea about their future plans, 115 did not.

Question 11: Whether or not you have a clear idea of what you want to do once you have finished school, you are requested to indicate prospective career choices/job preferences for the future. Six broad occupational options are indicated below. Please indicate your interest in each of these areas by writing down the appropriate number in the square on the right. The numbers have the following meaning:

| 1 = No interest | 2 = Slight interest | 3 = Some interest | 4 = Definite interest | 5 = Marked interest | 6 = Very high interest |

*Realistic work environment (R): Machine operator; fireman; fitter; dressmaker; technician; technologist; engineer; caterer; motor mechanic and more.

*Investigative work environment (I): Regional planner; financial analyst; lawyer; medical practitioner; psychologist; engineer; medical technician and more.

*Artistic work environment (A): Editor; actor; designer; musician; television announcer; photographer and more.

*Social services work environment (S): Occupational safety officer; housekeeper; educator; police officer; speech therapist; social worker; sports coach; game warden and more.

*Enterprising work environment (E): Salesperson; art dealer; administrative manager; bank manager; consultant; hotel manager; sports promoter; business owner and more.

*Conventional work environment (C): Accountant; clerk; bookkeeper; receptionist; archivist; proofreader and more.
The researcher needed a very concise procedure with which to determine what the interests were of prospective school leavers in various groupings of jobs or careers (occupational options/choices) in general and in an entrepreneurial option, specifically. The Self-Directed Search Questionnaire (SDS) of Holland (see Chapter 3, 3.4.3.2) describes six personality types as part of his occupational choice theory. He also identified six types of work environments similar to the personality types, namely Realistic, Investigative, Artistic, Social, Enterprising and Conventional. The researcher added a number of jobs or careers relevant to those work environments to Question 11. These additions were made from Taljaard and Von Mollendorf's (1987:2-1 to 2-75) “The South African Dictionary of Occupations”.

5.2.1.3 Section C: The GET Questionnaire

This part of the whole composite questionnaire contains the original GET test, as had been developed by researchers at Durham University Business School (see Appendix A; also Chapter 4, 4.5).

5.2.2 Exposition of results

As is the nature of research, the statistical data and the results that were found from applying statistical procedures will be presented in what follows here. From the GET as such, levels of entrepreneurial attitude were established and will be reported on in 5.3. From the additional section and questions that the researcher added to the original questionnaire (Section B), reports will be made on the effects of exposure to economic education and/or entrepreneurial training (5.4), general career choices of the sample (5.5), expectations in finding employment (5.6), willingness to generate own income or start a business (5.7) and the impact (or not) of knowing people who started their own businesses (5.8).
5.3 LEVELS OF ENTREPRENEURIAL ATTITUDE

5.3.1 Introduction

Five categories of entrepreneurial attitude were assessed by administering the original GET questionnaire as part of the composite questionnaire used for this study. These categories are:

- need for achievement (Section 1)
- need for autonomy or independence (Section 2)
- creative tendency (Section 3)
- moderate or calculated risk-taking (Section 4)
- drive and determination (Section 5).

Firstly, feedback will be given on the levels of entrepreneurial attitude found from the statistical data. Then, using tabulations, comparisons will be made between entrepreneurial attitude and other issues, such as:

- interest in the entrepreneurial career choice (Holland’s Enterprising work environment);
- willingness of learners to generate their own income;
- expectations for finding employment once they finished school or tertiary training;
- having a clear idea of career choice;
- knowing someone who started their own business or who are business owners;
- the various language users; and
- family structures.

Finally, a brief summary of all the significant findings connected with levels of entrepreneurial attitude will follow.
5.3.2 Interpretation

The self-scoring section of the GET questionnaire allows the testee to interpret his own scores. The five categories each provide maximum scores (12 - excepting for Section 2, which has 6 as a maximum score) and average scores (that differ from section/category to section.). It was found that the general values obtained from the data gathered for this study were lower than the values set by the creators of this test at Durham University Business School, Britain. The supposition is made that the British maximum scores are unrealistically high for South African conditions. The range of values was then adjusted in terms of the maximum scores, according to the data that had been obtained in this research study (see Table 5.1).

<table>
<thead>
<tr>
<th>Table 5.1: General maximum values for the various sections/categories</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>Section 1</td>
</tr>
<tr>
<td>Section 2</td>
</tr>
<tr>
<td>Section 3</td>
</tr>
<tr>
<td>Section 4</td>
</tr>
<tr>
<td>Section 5</td>
</tr>
</tbody>
</table>

Apart from the general maximum values that were lower than those set by the original creators of the GET, the mean for each category/section was noticeably lower too (see Table 5.2).

<table>
<thead>
<tr>
<th>Table 5.2: Means of categories as per South African sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>British means for test categories</td>
</tr>
<tr>
<td>Means for this sample</td>
</tr>
</tbody>
</table>
The averages of the three schools used in this study - Linpark, Edendale and Zibukezulu - were calculated (Table 5.3) and compared with the mean scores of the South African groups in general. The researcher wanted to establish whether there was any difference amongst learners from the three different schools, as far as the various entrepreneurial categories are concerned.

<table>
<thead>
<tr>
<th>Mean</th>
<th>Achievement</th>
<th>Autonomy</th>
<th>Creativity</th>
<th>Risks</th>
<th>Drive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group</td>
<td>4.66</td>
<td>3.15</td>
<td>5.71</td>
<td>5.74</td>
<td>4.55</td>
</tr>
<tr>
<td>Linpark</td>
<td>4.35</td>
<td>3.16</td>
<td>5.49</td>
<td>5.69</td>
<td>3.71</td>
</tr>
<tr>
<td>Edendale</td>
<td>4.67</td>
<td>3.33</td>
<td>6.04</td>
<td>5.72</td>
<td>4.49</td>
</tr>
<tr>
<td>Zibukezulu</td>
<td>4.87</td>
<td>3.06</td>
<td>5.71</td>
<td>5.80</td>
<td>5.18</td>
</tr>
</tbody>
</table>

The learners from Linpark scored notably lower on drive and determination.
The learners from Zibukezulu scored notably higher on drive and determination.
The learners from Edendale scored notably higher on creative tendencies.

5.3.3 Comments

The fact that the general values and the means of the five entrepreneurial categories were lower for this particular sample may indicate that the entrepreneurial attitudes of this sample of learners are low. The question immediately arises whether learners are educated and brought up to think and behave in an entrepreneurial manner. The general parenting style in South African families may not contribute towards heightening entrepreneurial attitude, behaviour and skills in general and in the offspring of the parents, in particular. A culture of entrepreneurship does not seem prevalent in the South African context as yet (Erwee 1987:742-743, also Chapter 3, 3.2.3).

It may be that the South African education and training system does not lend itself to preparing learners for the labour market and a society that requires entrepreneurial behaviour and enterprising activities. The scores of the learners on this test, therefore, confront us with the question whether
we train learners and students to become entrepreneurs (Caird 1992:6; also Chapter 3, 3.3.7.) The low score may indicate that this does is not done.

The higher scores of learners from Zibukezulu in the category drive and determination may indicate that these learners did take advantage of opportunities, believed that they control their own destiny, and showed marked determination. This seemed to be more the case with them than with learners from Linpark. One may deduce that the Linpark group, being the less “disadvantaged” group, were less driven to use opportunities, less focused on being in control and taking control of their own destiny, and less determined (Kent et al 1982; Hagen 1971, also Chapter 3, 3.2.3).

The Edendale learners had a high score for creativity. Qualities such as imagination and innovation, a tendency to daydream, being versatile and curious, having lots of ideas, being intuitive and guessing well, enjoying new challenges and having a liking for novelty and change, seemed more prominent amongst this group. The fact that they were not exposed to “privileged” accessories such as TVs, computers, a wide variety of books and even toys, may have afforded them an opportunity to develop and explore their inner creativity.

5.3.4 Entrepreneurial attitudes vs. enterprising career choice

5.3.4.1 Interpretation

A comparison was made between learners who scored low in terms of entrepreneurial attitude as well as those with high scores for entrepreneurial attitude, and the interest shown in the careers indicated as representative of the enterprising work environment.
Table 5.4: Scores for entrepreneurial attitudes and interest in enterprising career choice

<table>
<thead>
<tr>
<th>Low scores</th>
<th>Low interest</th>
<th>High interest</th>
<th>Low interest</th>
<th>High interest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>56.8</td>
<td>43.2</td>
<td>Achievement</td>
<td>53.3</td>
</tr>
<tr>
<td>Autonomy</td>
<td>54.3</td>
<td>45.7</td>
<td>Autonomy</td>
<td>57.1</td>
</tr>
<tr>
<td>Creativity</td>
<td>57.4</td>
<td>42.6</td>
<td>Creativity</td>
<td>53.4</td>
</tr>
<tr>
<td>Risk-taking</td>
<td>50.0</td>
<td>50.0</td>
<td>Risk-taking</td>
<td>59.4</td>
</tr>
<tr>
<td>Drive</td>
<td>56.8</td>
<td>43.2</td>
<td>Drive</td>
<td>54.0</td>
</tr>
<tr>
<td>Average</td>
<td>55.06</td>
<td>44.94</td>
<td>Average</td>
<td>55.44</td>
</tr>
</tbody>
</table>

On average, 55.06%* of learners with low scores on the five entrepreneurial attitudes, as well as 55.44% of those with high scores on the entrepreneurial attitudes, showed an average to low interest in an enterprising work environment as a career option.

5.3.4.2 Comments

Learners generally showed an average to low interest in entrepreneurship as a possible career option. This, however, was not a significant finding. The average to low interest of learners in entrepreneurship as a career option may be due to the fact that the career options given in this category provide an unclear picture of entrepreneurship (salesperson, art dealer, administrative manager, bank manager, consultant, hotel manager, sports promoter, business owner and more). Entrepreneurship, in fact, is not limited to these career options. Many of the other options mentioned in the other five categories could form the basis of new venture creation or for starting one’s own business.

*For the purpose of this study, the break-up of percentages is done as follows:

- 0-29.9% = Low
- 30-39.9% = Low average
- 40-45.9% = Below average
- 46-54% = Average
- 54.1-60% = Above average
- 60.1-70% = High average
- 70.1-100% = High
5.3.5 Entrepreneurial attitude vs. considering generating one's own income

5.3.5.1 Interpretation

The researcher needed to establish whether learners with high levels of entrepreneurial attitude would be more susceptible to the idea of generating their own income.

<table>
<thead>
<tr>
<th>Consider generating own income</th>
<th>Achievement</th>
<th>Autonomy</th>
<th>Creativity</th>
<th>Risk taking</th>
<th>Drive</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>45.9</td>
<td>40.8</td>
<td>54.1</td>
<td>51.2</td>
<td>49.4</td>
<td>48.28</td>
<td></td>
</tr>
<tr>
<td>Do not consider generating own income</td>
<td>52.0</td>
<td>36.0</td>
<td>68.0</td>
<td>72.0</td>
<td>52.0</td>
<td>56.00</td>
</tr>
</tbody>
</table>

On average, 48.28% of those who considered generating their own income had high scores for entrepreneurial attitude.

On average, 56.0% of those who did not consider generating their own income had high scores for entrepreneurial attitude.

5.3.5.2 Comments

More learners who did not consider generating their own income scored high on entrepreneurial attitude than learners who did consider generating their own income. However, one would expect the results to be the other way round. The findings of this particular section were inconclusive, as the Pearson Chi-Square was 0.083.
5.3.6 Entrepreneurial attitude vs. expectation to find employment

5.3.6.1 Interpretation

The researcher needed to determine whether learners who scored high on entrepreneurial attitude and by implication showed marked entrepreneurial behaviour expected to find employment once they had finished school.

| Table 5.6: Expectation to find employment vs. high scores for entrepreneurial attitude |
|----------------------------------------|--------|--------|--------|--------|--------|--------|
| Expecting to find employment           | 43.4   | 34.9   | 52.9   | 54.6   | 43.8   | 45.92  |
| Not expecting to find employment       | 50.0   | 50.0   | 55.6   | 50.0   | 61.1   | 53.34  |

On average, 45.92% of learners expecting to find employment scored high on entrepreneurial attitude. On average, 53.34% of those not expecting to find employment scored high on entrepreneurial attitude.

A significant 50% of those who did not expect to find employment scored high on need for achievement.

A significant 64.7% of those who scored low on need for achievement expected to find employment.

A significant 64.7% of those who scored low on drive and determination expected to find employment.

5.3.6.2 Comments

Learners in general scored average to below average as far as need for achievement was concerned. The qualities that constitute need for achievement seemed to be present in most learners, albeit not strong. This seems to be a significant finding (0.015 - Pearson Chi Square). The trend also seemed to be that a significant number of learners who scored low on need for achievement expected to find
employment. Learners expecting to find employment indicated below average levels of entrepreneurial attitude.

A significant number of learners who scored below average on drive and determination expected to find employment. The following qualities were not present at a significant level in these learners: to take advantage of opportunities, to discount fate, to make one's own luck, to be self-confident, to believe in controlling one's own destiny, to equate results with effort, and to show considerable determination.

However, just more than half of the learners not expecting to find employment did score high on entrepreneurial attitudes. Higher levels of entrepreneurial attitude seemed to be present in those learners who indicated that they expected that a job might not be available for them once they had finished school or tertiary training. This may be a realistic expectation if one keeps the following statistics in mind: "... the province's [KwaZulu-Natal's] labour force, which included those in the formal sector, the informal sector and the unemployed, membered 2.7 million. Between 1980 - 1995 the labour force increased at an average annual rate of ± 3.6%. This increase can be attributed to the relative youth of the inhabitants (as children under 15 years, mature, about 95 000 of them enter the labour market annually)." (Development Information Business Unit 1998:7.) "Young people were ... more likely to be unemployed and some 57% of those aged 15-30 were unemployed in 1997, according to the definition of unemployment ... that states that a person was classified unemployed only if he was actively seeking employment". (Forgey, Jeffery, Sidiropoulos, Smith, Corrigan, Mophuthing, Helman, Redpath and Dimant 1999:247.)
5.3.7 Entrepreneurial attitude vs. a clear idea of career choice

5.3.7.1 Interpretation

The researcher needed to know whether a high level of entrepreneurial attitude would have an effect on the clarity learners had in terms of career choices.

| Table 5.7: A clear idea of career choice vs. high scores for entrepreneurial attitude |
|-----------------------------------|-------------------------------|-----------------|-----------------|-----------------|---------------|---------------|
|                                   | Achievement | Autonomy | Creativity | Risk taking | Drive | Average |
| Clear idea of career choice       | 46.2         | 43.2     | 50.6       | 54.5         | 48.7   | 48.64      |
| Not a clear idea of career choice | 55.2         | 35.5     | 59.2       | 50.4         | 53.6   | 50.78      |

On average, 48.64\% of those who had a clear idea of what they want to do once they had finished school scored high on entrepreneurial attitude.

On average, 50.78\% of those who did not have a clear idea of what they wanted to do once they had finished school scored high on entrepreneurial attitude.

5.3.7.2 Comments

It has already been determined that entrepreneurial attitude was present in the sample group, even though not in significant levels (see 5.3.3.) This seemed not to have contributed significantly towards the clarity grade 11 learners had in terms of career choices. One may surmise that the average to high levels of entrepreneurial attitude might affect the ability of learners to make clear career choices.
5.3.8 Entrepreneurial attitude vs. knowing someone who started their own business or who is a business person

5.3.8.1 Interpretation

The researcher needed to establish the effect of being exposed to a businessperson, whether related to the testee or not, on the presence of entrepreneurial attitude.

| Table 5.8: Knowing someone who has a business vs. high scores for entrepreneurial attitude |
|-----------------------------------------------|-----------------|-----------------|-----------------|-----------------|
|                                               | Achievement     | Autonomy        | Creativity      | Risk-taking     | Drive           |
| Family in business                            | 55.0            | 37.0            | 57.0            | 55.0            | 55.0            | 51.80           |
| Other acquaintances in business                | 48.2            | 40.6            | 53.2            | 52.4            | 48.2            | 48.52           |

On average, 51.8% of those whose family was in business scored high on entrepreneurial attitude. On average, 48.52% of those who knew other business people scored high on entrepreneurial attitude.

5.3.8.2 Comments

More or less half of learners exposed to friends and relatives in the business world scored high on entrepreneurial attitude. This exposure seemed to have a noticeable effect on the raising of entrepreneurial attitude in learners used in this sample. The impact of exposure, or even the level of exposure itself, however, did not seem to be significant. One may surmise that the exposure to family, friends and acquaintances who were in business could be of too low a quality significantly to increase the knowledge and experience of learners, in order to contribute to raised levels of entrepreneurial attitude. The manner in which, and frequency with which business people (parents, relatives, acquaintances and even educators) in the business world might have an impact on learners, and the level of the exposure of learners to the world of business, need to be focused on at home and
in the classroom in future in order to raise levels of entrepreneurial attitude and increase entrepreneurial behaviour.

5.3.9 Entrepreneurial attitude vs. language

5.3.9.1 Interpretation

The researcher wanted to compare the different language users in terms of the presence of entrepreneurial attitude in each group.

| Table 5.9: Home language vs. high scores for entrepreneurial attitude |
|-----------------|--------|--------|--------|--------|--------|--------|
|                 | Average | Autonomy | Creativity | Risk taking | Drive | Average |
| English         | 34.00   | 32.70    | 44.00    | 48.00    | 28.00  | 37.34   |
| Afrikaans       | 38.90   | 38.90    | 55.00    | 50.00    | 55.60  | 47.68   |
| Zulu and Xhosa  | 55.73   | 52.03    | 54.53    | 56.15    | 62.83  | 56.25   |

On average, 37.34% of English speakers scored high on entrepreneurial attitude.
On average, 47.68% of Afrikaans speakers scored high on entrepreneurial attitude.
On average, 56.25% of Zulu and Xhosa speakers scored high on entrepreneurial attitude.
It is notable that 55.73% of Zulu and Xhosa speakers scored high on need for achievement.
It is notable that 62.83% of Zulu and Xhosa speakers scored high on drive and determination.
It is notable that 55.6% of Afrikaans speakers scored high on drive and determination too.
It is notable that 76.6% of learners who scored high on need for achievement were Zulu and Xhosa speaking, 12.45% English and 5.1% Afrikaans speaking.
5.3.9.2 Comments

A notable number of Zulu and Xhosa speakers indicated high levels of need for achievement. Zulu and Xhosa speakers, as well as Afrikaans speakers, indicated high levels of drive and determination. These seemed to be the groups who were determined to be optimistic, task and result-orientated, self-confident and energetic. A higher number of Zulu and Xhosa speakers showed high levels of entrepreneurial attitude compared to the other two language groups. The Zulu and Xhosa speakers, as a group, were more determined and focused on achievement.

One can only speculate that, owing to the former political dispensation and because of the new positive legislation and governance (Gomolka 1977:12-22, also Chapter 3, 3.2.3), learners have developed an entrepreneurial attitude that will get them out of poverty and into a better life.

5.3.10 Entrepreneurial attitude vs. family structure

5.3.10.1 Interpretation

The researcher was interested in determining whether belonging to a single parent family, a complete family or not being with one's biological parents would have an impact on entrepreneurial attitude and therefore compared family structure and the presence of entrepreneurial attitude.
Table 5.10: High scores for entrepreneurial attitude vs. family structure

<table>
<thead>
<tr>
<th></th>
<th>Single parent</th>
<th>Complete family</th>
<th>Guardian/ Foster</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need for achievement</td>
<td>32.4</td>
<td>55.1</td>
<td>12.5</td>
</tr>
<tr>
<td>Need for independence</td>
<td>28.6</td>
<td>55.2</td>
<td>16.2</td>
</tr>
<tr>
<td>Creativity</td>
<td>35.4</td>
<td>53.7</td>
<td>10.9</td>
</tr>
<tr>
<td>Risk taking</td>
<td>37.8</td>
<td>50.3</td>
<td>11.9</td>
</tr>
<tr>
<td>Drive</td>
<td>31.6</td>
<td>50.0</td>
<td>18.4</td>
</tr>
<tr>
<td>Average</td>
<td>33.16</td>
<td>52.86</td>
<td>13.98</td>
</tr>
</tbody>
</table>

On average, 33.16% of learners who scored high on entrepreneurial attitude were from single parent families.

On average, 52.86% of learners who scored high on entrepreneurial attitude were from complete families.

On average, 13.98% of learners who scored high on entrepreneurial attitude were from a foster family or had a guardian.

A significant 75.8% of learners from foster families or guardians scored high on drive and determination.

5.3.10.2 Comments

More learners who were from complete families showed that they had entrepreneurial attitude. A significantly high number of learners who were not part of their own family were determined and showed drive.

5.3.11 Summary: Levels of entrepreneurial attitude

Learners on average presented with low levels of entrepreneurial attitude compared with the British sample. By implication, entrepreneurial behaviour will not be noticeable amongst the South African sample. Even though the average scores for entrepreneurial attitude were low, learners from the two
township schools scored higher on entrepreneurial attitude than those from the urban school. However, it did seem as if a culture of entrepreneurship was not prevalent in the South Africans context as yet (Erwee 1987:742-743).

Learners in general showed an average to low average interest in the enterprising work environment. Learners expecting to find employment scored low on entrepreneurial attitude. Learners not expecting to find employment scored high on entrepreneurial attitude. These numbers, however, were notable, but not significant. Learners did not have a clear idea of career choices. Higher levels of entrepreneurial attitude and behaviour might contribute to learners being able to make clear career choices.

Learners who knew people, whether relatives or other significant people in their lives, in the business world, scored notably higher on entrepreneurial attitude. However, the impact and level of exposure to the activities and behaviour of significant people involved in the world of business did not seem to be great enough significantly to increase entrepreneurial attitude.

Zulu and Xhosa speakers showed high levels of entrepreneurial attitude, keeping in mind, however, that the average levels were low in terms of general value. This may be due to exposure, over more than one generation, to poverty, displacement and political unrest, which research proved to have a significant empowering effect on the development of entrepreneurial attitude, behaviour and skills on those particular groups (Gomolka 1977:12-22; King 1986:399-416).
5.4 EXPOSURE TO ECONOMIC EDUCATION AND/OR ENTREPRENEURIAL TRAINING

5.4.1 Introduction

Question 7, part of the additional section added to the composite questionnaire, set out to determine the exposure of learners to economic education (in this case specifically Business Economics and/or Economics as school subjects) and/or entrepreneurial training. An option was also provided for learners who had not been exposed to that kind of training.

In the first place, results will be reflected in terms of exposure or not. Comparisons will then be drawn between exposure to the abovementioned education and training, and issues such as -

- entrepreneurial attitude; and
- career choices.

Finally, a brief summary of the significant findings connected to exposure to economic education and entrepreneurial training will conclude this section.

5.4.2 Interpretation

Table 5.11 reflects the frequencies and percentages of the number of grade 11 learners who were exposed to some form of economic education and entrepreneurial training.
A noticeably large number of learners, 62.7%, were not at all exposed to entrepreneurial education and training.

Just over a fifth (21%) of the testees actually took Business Economics or Economics as a subject at school.

5.4.3 Comments

There was a significant difference between the number of grade 11 learners who had been exposed to Economic Education and/or Entrepreneurial Training (37.2%) and those who had not been exposed to that within the school curriculum (62.7%).

The three high schools involved in the study exposed a noticeably small number of their learners (37.2% of the total sample) to education, training and information that could raise awareness of personal entrepreneurial attitude and entrepreneurship as a possible career option.
5.4.4 Exposure to economic education and entrepreneurial training vs. entrepreneurial attitude

5.4.4.1 Interpretation

The researcher needed to determine whether exposure to entrepreneurial education had an effect on entrepreneurial attitude and therefore these two issues had to be compared.

<table>
<thead>
<tr>
<th></th>
<th>Achievement</th>
<th>Autonomy</th>
<th>Creativity</th>
<th>Risk</th>
<th>Drive</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposed to entrepreneurial training</td>
<td>62.4</td>
<td>33.0</td>
<td>59.4</td>
<td>55.4</td>
<td>52.5</td>
<td>52.54</td>
</tr>
<tr>
<td>NOT exposed to entrepreneurial training</td>
<td>43.8</td>
<td>42.9</td>
<td>51.8</td>
<td>52.1</td>
<td>49.7</td>
<td>48.60</td>
</tr>
</tbody>
</table>

On average, 52.54% of those exposed to entrepreneurial training scored high on entrepreneurial attitude.

On average, 48.6% of those learners who had not been exposed to entrepreneurial training scored high on entrepreneurial attitude.

By cross tabulating the individual entrepreneurial attitudes, with exposure (or not) to entrepreneurial training, it was found:

- That a significant 71.4% of learners who scored low on need for achievement had not been exposed to entrepreneurial education.
- That an above average number of learners (67.0%) who had been exposed to entrepreneurial education scored low on independence.
5.4.4.2 Comments

When reporting on findings regarding exposure to entrepreneurial education, one has to keep in mind that a noticeably small portion of the grade 11 learners had been exposed to entrepreneurial education (37.2%, see 5.4.2) and a noticeably large number had not been exposed (62.7%). A slightly higher number of learners exposed to entrepreneurial education also scored high on entrepreneurial attitude. It seems as if exposure to entrepreneurial education did have a notable but not a significant impact on entrepreneurial attitude, as per this sample.

A significant number of learners who scored low on need for achievement had not been exposed to entrepreneurial education. Qualities such as looking forward, being self-sufficient, optimistic rather than pessimistic, task-orientated, results-orientated, restless and energetic, self-confident, persistent and determined, and dedicated to completion of a task, seemed not to be significantly present in learners who had not been exposed to entrepreneurial education. One might conclude that entrepreneurial training might contribute towards learners acquiring the abovementioned qualities. All people have entrepreneurial capacities that can and should be developed through education (Leibenstein 1987:200; Cuevas 1994:82; Chapter 2, 2.2.4).

It was also noticed that learners exposed to entrepreneurial education achieved low on need for autonomy/independence. Qualities such as being willing to do unconventional things, preferring to work alone, needing to do “their own thing”, needing to express what they think, disliking taking orders, liking to make up their own minds, not bowing to peer pressure and being stubborn and determined, were not noticeably present in learners in general. The qualities mentioned here are representative of entrepreneurial and enterprising behaviour. Behaviour can be learned, if individuals are willing to change and grow. Entrepreneurial education may contribute to the changing of behaviour and the acquisition of entrepreneurial skills and entrepreneurial behaviour, just as some can learn to behave independently (Stevenson and Gumpert 1985:86).
The sample used for this study have not been extensively exposed to entrepreneurial education. Higher levels of exposure to economic education and entrepreneurial training might increase their levels of entrepreneurial attitude and behaviour. It is questionable whether prospective school leavers with this average level of entrepreneurial attitude are more susceptible to entrepreneurship as a career option.

5.4.5 Exposure to entrepreneurial education vs. career choices

5.4.5.1 Interpretation

The researcher needed to determine whether learners who had been exposed to entrepreneurial education responded differently to career choices than those who had not been exposed to any form of entrepreneurial training.

<table>
<thead>
<tr>
<th></th>
<th>Realistic</th>
<th>Investigative</th>
<th>Artistic</th>
<th>Social</th>
<th>Enterprising</th>
<th>Conventional</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposed to entrepreneurial</td>
<td>42.6</td>
<td>48.5</td>
<td>43.6</td>
<td>40.6</td>
<td>47.5</td>
<td>39.6</td>
<td>43.73</td>
</tr>
<tr>
<td>education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not exposed to entrepreneurial</td>
<td>62.4</td>
<td>46.5</td>
<td>42.4</td>
<td>24.7</td>
<td>43.2</td>
<td>16.5</td>
<td>39.28</td>
</tr>
<tr>
<td>education</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

On average, 43.73% of learners exposed to entrepreneurial education showed high interest in career options in general.

On average, 39.26% of learners NOT exposed to entrepreneurial education showed a high interest in career options in general.

A significant 62.4% of learners not exposed to entrepreneurial education showed a high interest in the realist work environment (career options).
A below average 40.6% of learners who had been exposed and a low 24.7% who had not been exposed to entrepreneurial education showed a high interest in the social work environment. A significant 71.1% of learners who showed high interest in the realistic work environment had not been exposed to entrepreneurial education. A significant 68.1% of learners who showed low interest in the social work environment had not been exposed to entrepreneurial education.

5.4.5.2 Comments

Learners from the sample in general showed a below average interest in the six work environments (career options or Holland’s occupational choices) presented to them. This may be because learners do not have information about careers to the extent that they can show notable interest in broad work environments. Learners need to “choose a career or their first job with full knowledge of all the alternatives that they have, the opportunities which they can reach and those which they cannot and the abilities and personality each one has to offer to the job market.” (Lindhard and Oosthuizen 1985:22-24.) A shortage of useful career information might have had an effect on these results.

The kinds of jobs or careers provided as representative of each work environment category might not have been sufficient in number truly to represent the particular work environment, and, therefore, showed up as a below average interest score on average amongst the grade 11 learners who were tested.

Another possibility may be that, on average, learners, whether exposed to entrepreneurial education or not, are not ready to make career choices, owing to a lack of self-knowledge, career information and knowledge of the labour market.
5.4.6 Summary: Exposure to economic education and/or entrepreneurial training

Learners are not and have not been exposed to economic education and/or entrepreneurial training in significant numbers. The literature study done in Chapter 2 gave evidence that entrepreneurial qualities are present in every person (Leibenstein 1987:200) and that entrepreneurial attitude and behaviour can be developed up to an adequate skills level (Stevenson and Gumpert 1985:86). This may be the action plan required at primary and high school level, in order to raise awareness of personal entrepreneurial attitude and entrepreneurship as a career option.

5.5 GENERAL CAREER CHOICES

5.5.1 Introduction

Question 11 was one of the additional questions the researcher added to the composite questionnaire. Six broad occupational options were given and learners had to indicate their level of interest in each option, varying from “no interest” to “very high interest”. Each work environment (occupational option) was followed by a number of relevant job options/career choices.

The initial aim was to determine the interest of learners in the Enterprising work environment, which traditionally represents entrepreneurship. The outcome thereof will be reported on. Secondly, feedback will be given on whether or not learners had a clear idea of what they wanted to do once they had finished school (Question 10 of the composite questionnaire). Subsequently, comparisons will be drawn and reported on between career choices and -

- learners having a clear idea about future plans;
- expectations in finding employment; and
- knowing other business people.
The various language users are also compared with the Enterprising career option specifically. Finally, a brief summary of the significant findings connected with career choices is given.

5.5.2 Interpretation

The researcher needed to determine the level of interest of learners in the Enterprising career option specifically and their response to choosing careers in general.

Figure 3: Levels of interest in Holland’s six career options (in percentages)

A slightly above average interest of 54.9% was shown in the Realistic work environment. Average to slightly below average interest was recorded for the Investigative (47.3%) and Enterprising (44.7%) work environments. Below average interest (42.8%) was shown for the Artistic and a low average (30.6%) for the Social work environment. Learners indicated a low interest (25%) in the Conventional work environment.
5.5.3 Comments

Grade 11 learners showed a slightly below average interest in the Enterprising work environment. For the purpose of this study the Enterprising work environment/career option is deemed representative of entrepreneurial career choices.

There are a number of reasons why a definite interest (54.9%) was indicated in the Realistic work environment. Careers or job opportunities in the Realistic work environment, for example, machine operator, fireman, fitter, dressmaker, technician, technologist, engineer, caterer, motor mechanic and more, will give school leavers and prospective entrepreneurs an opportunity to gain work experience and skills with the aim of starting their own businesses eventually. Getting training in these kinds of jobs at school level already, by taking subjects such as trade theories, home economics and technical drawings, puts the school leaver firmly on the road towards generating his own income even before he officially enters the labour market.

The fact that learners may not have been adequately exposed to career information could have contributed to the low interest in the Conventional work environment. The six job options mentioned under the Conventional work environment might not have given a clear picture of what this work environment entails. The possibility also exists that the learners are not interested in those kind of job options at all.

5.5.4 Clear idea of career choice

5.5.4.1 Interpretation

It was required of learners to indicate whether they had a clear idea of what they wanted to do once they had finished school. Frequency tabulation was used to determine the results.
An above average number of learners (57.6%) had a clear idea of what they want to do after school. A very low 9.6% indicated that they did not know what they were going to do after school. A low average 32.8% was unsure about what they were going to do after school. In total, 42.4% did not know what they would do after school.

5.5.4.2 Comments

An above average number of learners knew what they were going to do once they had finished school. At this point it has not been stated what the future plans of these learners were. The next comparison (see 5.5.5) might give a clearer picture of what those plans might be and whether entrepreneurship as a career option has been considered at all. This comparison could also provide information regarding the future plans of those learners (42.2%) who did not know what they would do after school.

5.5.5 Having a clear idea about future plans vs. career choices

5.5.5.1 Interpretation

The researcher needed to establish whether learners who knew what their future plans were, also had clear interest patterns as far as career choices were concerned.

<table>
<thead>
<tr>
<th>Table 5.14: A clear idea about future career choices vs. high interest in career options</th>
<th>Realistic</th>
<th>Investigative</th>
<th>Artistic</th>
<th>Social</th>
<th>Enterprising</th>
<th>Conventional</th>
<th>Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear idea about career option</td>
<td>59.6</td>
<td>48.1</td>
<td>37.8</td>
<td>28.2</td>
<td>39.4</td>
<td>19.9</td>
<td>38.83</td>
</tr>
<tr>
<td>No clear idea about career option</td>
<td>50.5</td>
<td>39.3</td>
<td>44.25</td>
<td>30.1</td>
<td>55.45</td>
<td>28.95</td>
<td>41.43</td>
</tr>
</tbody>
</table>

A low average of 38.83% of learners who had a clear idea about what they wanted to do once they had finished school showed a high interest in career options in general.
An above average of 59.6% of learners who had a clear idea about what they wanted to do once they had finished school showed a high interest in the Realistic work environment.

A significant 19.9% of learners who had a clear idea about what they wanted to do once they had finished school showed a high interest in the Conventional work environment.

A significant 37.8% of those who had a clear idea about what they wanted to do once they had finished school showed a high interest in the Artistic work environment.

A below average of 41.43% of those who had no clear idea about what they wanted to do once they had finished school, or who were unsure, showed a high interest in career options in general.

An inconclusive 55.45% of those not having a clear idea showed a high interest in the Enterprising work environment.

A significant 44.25% of those not having a clear idea showed a high interest in the Artistic work environment.

A significant 28.95% of those not having a clear idea showed a high interest in the Conventional work environment.

5.5.5.2 Comments

Learners in general showed a below average interest in the six occupational choices (work environments) of Holland. One reason for this may be that the career options quoted for each work environment did not represent the work environment adequately.

However, learners who knew what they were going to do once they had finished school showed an above average interest in the Realistic work environment. A low average to low level of interest was shown in the Artistic and Conventional work environments. Although not conclusive, learners who were not sure of their plans after school showed an above average interest in the Enterprising work environment. The issues of self-knowledge, career information and career planning may all play a role in those levels of interest (Lindhard and Oosthuizen 1985:26-29.) A possible conclusion that may be
drawn from these findings is that learners are not adequately prepared to enter the labour market and the world of work.

Learners in general, however, were more interested in occupations involving concrete and practical activities, where persons prefer to work with their hands and/or tools (Taljaard and Von Mollendorf 1987:i-ii). The fact that learners who were unsure about their future plans showed the highest interest in the Enterprising work environment, even though statistically it was not conclusive, opened a door to raising awareness of entrepreneurship as a career option.

5.5.6 Expecting to find employment vs. career choices

5.5.6.1 Interpretation

The researcher needed to establish whether learners expecting to find employment had a high interest in career options.

| Table 5.15: Expecting to find employment vs. high interest in career options |
|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                 | Realistic      | Investigative | Artistic       | Social         | Enterprising   | Conventional   | Average        |
| Expecting to find employment | 58.8       | 51.0          | 39.9           | 31.4           | 44.4           | 25.5           | 41.83          |
| Not expecting to find employment | 52.3       | 38.65         | 52.55          | 31.15          | 38.7           | 16.8           | 38.36          |

In general, a below average 41.83% of those learners who expected to find employment after school showed a high interest in the various career options.

On average, 38.36% of those NOT expecting to find employment after school showed a high interest in the various career options.
5.5.6.2 Comments

Even though learners expressed some interest in career options, their expectations of finding employment was below average to low. This allows for an opportunity to introduce the idea of generating one’s own income to the learners. If they do not expect to find employment, one other option is entrepreneurship as a career path. Raising awareness of the fact that one can be trained on how to start and run one’s own business is eminent in a situation like this.

5.5.7 Knowing someone who started their own business vs. career choices

5.5.7.1 Interpretation

The researcher needed to determine whether learners who knew someone who had started their own business or who was a businessperson showed a high interest in career options.

| Table 5.16: Knowing someone who started their own business vs. high interest in career options |
|------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                      | Realistic | Investigative | Artistic | Social | Enterprising | Conventional | Average |
| Knowing someone in business         | 61.0    | 55.0           | 41.0     | 27.0   | 45.0          | 20.0           | 41.5    |
| Knowing others in business           | 51.5    | 42.7           | 43.9     | 32.7   | 44.7          | 28.1           | 40.6    |

On average, 41.5% of learners who had family who had started their own business or was a business person, and 40.6% of learners who knew others (acquaintances) who had started their own businesses, showed high interest in career options in general.

By cross tabulating the individual career options (work environments) with the learners knowing family and others in the business world, it was found that -

- a significant 55% of those knowing family and a significant 42.7% of those knowing people other than family who had started their own businesses showed high interest in the
Investigative work environment;

- learners in general showed an average to high interest in the Realistic work environment; and
- a notably low 20% and 28.1% showed a high interest in the Conventional work environment.

5.5.7.2 Comments

Learners who had been exposed to the world of business, whether through family or others, in general showed a below average interest in career options.

Realistic and Investigative work environments, however, allowed for above average interest from learners in general and notably low interest was shown in Social and Conventional career options.

5.5.8 Language vs. enterprising career option

5.5.8.1 Interpretation

The three different language groups were cross tabulated with interest in the Enterprising career option, in order to determine whether there was any difference amongst the language groups in terms of their interest in this specific career option.

A low average 34% of English language users scored high on the Enterprising work environment.
A low average 33.3% of Afrikaans language users scored high on the Enterprising work environment.
An average number of Zulu and Xhosa language users (48.5%) scored high on the Enterprising work environment.
5.5.8.2 Comments

Learners from various language groups in general showed a low average to average interest in the Enterprising work environment.

The Zulu and Xhosa language users showed an average interest in the Enterprising career option. This may be the group at present who are the most exposed to people trying to generate their own income, having small “spaza” shops, are mostly street vendors and are selling products in general. People from this sector of society are more prone to involvement in activities around subsistence survival.

5.5.9 Summary: General career choices

Although the general interest in the Enterprising work environment was below average, the Zulu and Xhosa speakers had a higher interest in this category, compared to the Afrikaans and English language groups.

Learners in general indicated an average interest in the Realistic work environment, and an above average number had a clear idea of what they were going to do after school.

Learners in general showed an above average (Realistic work environment) to low interest (Conventional work environment) in the six occupational choices of Holland. An average interest was recorded for the Investigative work environment and a low average interest in the Social work environment. The fact that learners who were interested in the career options recorded below average to low expectations in finding employment is indicative of an opportunity to raise awareness of entrepreneurship as a possible career path and to also make learners aware of the fact that entrepreneurial and business management skills can be acquired.
5.6 EXPECTATIONS IN FINDING EMPLOYMENT

5.6.1 Introduction

Question 8 of the composite questionnaire used in this study required from the learner to indicate his expectations in finding employment after school or once he had completed tertiary education. Feedback will be given on the expectations of the grade 11 learners who were part of this study.

Next, comparisons will be drawn between expectations of finding employment and

- various language groups; and
- attitudes of male and female learners.

In conclusion, the findings will be briefly summarised in respect of the expectations of prospective school leavers of finding employment.

5.6.2 Interpretation

Frequency tabulation was used to determine the expectations of learners in finding employment.

An above average 56.5% of learners expected to find employment.
A below average 43.5% expected NOT to find employment.

5.6.3 Comments

More than half of the testees expected to find employment even though the reality of the labour market predicted the opposite. The realities of the open labour market did not seem to be known to these prospective school leavers (Cawker and Whiteford 1993:37; also see Chapter 3, 3.2.3).
5.6.4 Language vs. expectations of finding employment

5.6.4.1 Interpretation

The researcher needed to find out whether the expectations of the language groups differed.

<table>
<thead>
<tr>
<th>Language speakers</th>
<th>Expecting to find employment</th>
<th>Not expecting to find employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>56.0</td>
<td>44.0</td>
</tr>
<tr>
<td>Afrikaans</td>
<td>77.8</td>
<td>22.2</td>
</tr>
<tr>
<td>Zulu and Xhosa</td>
<td>54.7</td>
<td>45.3</td>
</tr>
</tbody>
</table>

An above average 56% of English speakers expected to find employment.
A high 77.8% of Afrikaans speakers expected to find employment.
A slightly above average 54.7% of Zulu and Xhosa speakers expected to find employment.

5.6.4.2 Comments

The general trend amongst the learners seemed to be an above average to high expectation to find employment, especially amongst the Afrikaans speaking learners. However, because this particular question had too many options/categories included in its answer and the sample was so small, the results are not valid. When some of the categories were grouped together for statistical purposes, the validity of the results improved.

Addressing the possible reasons why Afrikaans language users had such a high expectation of finding employment, the following are considered:

- Parents may live this kind of expectation and share that with their offspring.
Learners may feel that their parents will somehow assist them in finding employment
Expectations of both parents and learners are unrealistic.

5.6.5 Gender vs. expectations to find employment

5.6.5.1 Interpretation

Cross tabulations were used to determine the expectations of male and female learners in terms of finding employment once they left school.

An above average 57.4% of the males expected to find employment.
A slightly above average 54.5% of the females expected to find employment.
A high average 68.6% of those who expected to find employment was males.
A low average 31.4% of those who expect to find employment was females.

5.6.5.2 Comments

Just more than half of the testees expected to find employment. The males had a higher than 50% expectation of finding employment than the females.

One assumption may be that the knowledge of possible career options for females was lower than those of males, and therefore one may get the impression that females did not expect to find employment.
5.6.6 Summary: Expecting to find employment

Slightly more than half of the learners expected to find employment once they had finished school. The expectation level was especially high amongst the Afrikaans language users. Male learners had higher expectations of finding employment than females.

5.7 WILLINGNESS TO GENERATE OWN INCOME OR START A BUSINESS

5.7.1 Introduction

Question 9 is part of the additional section that was added to the original questionnaire, to determine whether learners were aware of the fact that they did have the option to generate their own income, that is, whether they were aware of entrepreneurship as a career option.

Initially, feedback will be given on the willingness of the learners to consider generating their own income once they have completed school and/or any tertiary training. Then, report will be given on whether the grade 11 learners were exposed to business people or any family members or acquaintances who started their own businesses (Question 6 of the composite questionnaire). Following that, comparisons will be drawn between and report back given on willingness to generate an own income or start a business and -

- knowing someone who is active in the business world;
- expectations to find employment;
- the attitude of various language users; and
- the reaction of male and female school leavers.

Finally a brief summary will follow of the significant findings connected with learners’ willingness to consider generating their own income.
5.7.2 Interpretation

Frequency tabulation was used to determine the willingness of learners to consider generating their own income or to start a business.

A high average 62.7% of learners considered generating their own income or considered starting a business after school.
A below average 37.2% did not consider or were unsure of whether they could generate their own income.

5.7.3 Comments

A notable willingness to consider generating their own income or to start their own businesses as an option was present amongst the sample. This is probably a good indicator in terms of an opportunity to do entrepreneurial training. Learners may not yet have the skills to start an own business, but they are willing to consider the option.

5.7.4 Knowing people who started their own businesses

5.7.4.1 Interpretation

The researcher needed to determine whether learners had been exposed to any role models of entrepreneurship or to business people.

Using a frequency table, it was found that a high 71.2% of the learners knew someone who had started their own businesses or who was a businessperson.
5.7.4.2 Comments

The prospective school leavers know of relatives and/or significant others who had started their own businesses.

5.7.5 Knowing someone who started their own business vs. considering generating one’s own income

5.7.5.1 Interpretation

The researcher needed to establish what the effect was of learners knowing someone who had started their own business on their considering to generate their own income or start a business.

<table>
<thead>
<tr>
<th>Table 5.18: Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowing people who started own business</td>
</tr>
<tr>
<td>Mother</td>
</tr>
<tr>
<td>Father</td>
</tr>
<tr>
<td>Brother</td>
</tr>
<tr>
<td>Sister</td>
</tr>
<tr>
<td>Relative</td>
</tr>
<tr>
<td>Friend</td>
</tr>
<tr>
<td>Self</td>
</tr>
<tr>
<td>None</td>
</tr>
</tbody>
</table>

Learners who knew someone in the business world, whether family or acquaintance, considered generating their own income. Unfortunately, the data as it stands cannot be used. Because there were too many categories as part of the answer to the question, the data has been contaminated and is therefore not valid.
However, the number of categories were reduced and a statistical analysis was made again. It was found that 66% of those learners who had family running their own businesses and 60.8% of learners who knew people other than family who were also business people considered generating their own income.

5.7.5.2 Comments

Learners who had been exposed to the business world via family members or acquaintances who were business people were noticeably more willing to consider generating their own income by starting their own businesses, even though this exposure had a noticeable but not significant effect on raising the levels of entrepreneurial attitude in the sample (see 5.3.8.2).

5.7.6 Expecting to find employment vs. considering to generate one's own income

5.7.6.1 Interpretation

The researcher needed to compare expectations to find employment with considerations to generate an own income.

<table>
<thead>
<tr>
<th>Table 5.19: Percentages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expecting to find employment</td>
</tr>
<tr>
<td>YES</td>
</tr>
<tr>
<td>NO</td>
</tr>
<tr>
<td>UNSURE</td>
</tr>
</tbody>
</table>

A high average 68.6% of testees who indicated that they expected to find employment after school or once they had completed tertiary training indicated that they considered generating their own income.
A high 77.8% of those who did not expect to find employment after school or once they had completed tertiary training indicated that they considered generating their own income. An average 51% of those who were unsure whether they would find employment considered generating their own income.

By cross tabulating the individuals who considered generating their own income with those expecting to find employment, it was found that 61.8% of those testees who considered generating their own income indicated expectation to find employment and only 8.2% of those who considered generating their own income expected not to find employment.

Therefore, there was a significant dependence \( p = 0.014 \) between testees expecting to generate their own income and finding employment.

5.7.6.2 Comments

Once testees have considered generating their own income or start their own business, their expectations of finding employment increase significantly. As soon as a learner opens himself up to consider generating his own income, he has taken the first step towards entrepreneurship. Becoming pro-active, exploring his own strengths and weaknesses, creating his own job opportunity, developing whatever he needs in order to become part of the entrepreneurial process and to manage the process successfully, are the steps that could follow from the consideration of generating one’s own income. Once these steps have been taken, an individual’s expectation of finding employment is operationalised by creating a new venture (Pahn 1993:6-10).
5.7.7 Language vs. considering to generate one’s own income

5.7.7.1 Interpretation

The researcher needed to establish the interest of the various language groups in generating their own income. Cross tabulations were used to determine this.

A high average 68% of those who spoke English considered generating their own income.
An average 50% of those who spoke Afrikaans considered generating their own income.
A high average 66.87% of those who spoke Zulu and Xhosa considered generating their own income.

Focusing on those considering the idea of generating their own income, it was found that -
• a low 20% of those who considered generating their own income spoke English;
• a very low 5.3% of those who considered generating their own income spoke Afrikaans; and
• a high 74.7% of those who considered generating their own income spoke Zulu and Xhosa.

5.7.7.2 Comments

A notable number of English, and Zulu and Xhosa speakers considered generating their own income.
A notably high number of learners considering to generate their own income are Zulu and Xhosa speakers.

5.7.8 Gender vs. considering generating one’s own business

5.7.8.1 Interpretation

The researcher needed to determine whether male and female learners differed as far as their willingness to consider generating their own income was concerned.
A high average 61.7% of the males considered generating their own income.
A high average 64.8% of the females considered generating their own income.

A high average 66.5% of those who considered generating their own income was male.
A low average 33.5% of those who considered generating their own income was female.

5.7.8.2 Comments

More than half of the learners considered generating their own income.
More males than females considered entrepreneurship as a job option.

5.7.9 Summary: Willingness to generate own income or start an own business

Learners in general were willing to consider generating their own income. This attitude was especially notable amongst the Zulu and Xhosa speakers. This was probably because they may have been more exposed to people from that particular society depending on subsistence survival and were aware that those activities were viable income-generating options. This leaves the door wide open for entrepreneurial training. Together with the consideration to generate their own income, the expectations of learners in general to find employment increased significantly.

The effect of having family members and other acquaintances who were business people could not be determined conclusively.

Slightly more than half the learners did consider generating their own income. More male than female learners considered entrepreneurship as a career option.
5.8 CONCLUSIONS

5.8.1 The application of the GET was uncomplicated and practical. Learners and the researcher had easy and ready access to the interpretive information of the questionnaire. The individuals involved knew right after the completion of the questionnaire what the results were, and specifically what the level was of the entrepreneurial attitude of each learner.

5.8.2 The levels of entrepreneurial attitude and attributes of learners were notably low. Learners were not enterprising or entrepreneurial in their activities and their behaviour.

5.8.3 A significantly high number of learners had not been exposed to economic education and/or entrepreneurial training as part of the school curriculum or as extra-curricular activities.

5.8.4 Learners showed an above average to low level of interest in career options and job opportunities, as had been categorised by Holland’s occupational choices (work environments/career options). Lack of career information, self-knowledge, career planning skills and knowledge of the labour market and its trends may account for this. However, learners who knew what they were going to do once they had finished school showed an above average interest in the Realistic work environment. They were more interested in occupations involving concrete and practical activities, where persons prefer to work with their hands and/or with tools (Taljaard and Von Mollendorf 1987:i-ii).

5.8.5 The fact that learners who were unsure about their future plans showed the highest interest in the Enterprising work environment, even though statistically it was not conclusive, opens a door to raising awareness of entrepreneurship as a career option.

5.8.6 There was no significant dependence between the entrepreneurial attitude of grade 11 learners and the Enterprising work environment as a career choice, as indicated by these learners. Learners seemed to have a below average interest in the Enterprising work environment.
However, learners not expecting to find employment scored high on entrepreneurial attitude. These numbers were notable but not significant.

5.8.7 Learners, especially males and Afrikaans language speakers, had unrealistically high expectations of finding employment once they had finished school.

5.8.8 Learners expressed a willingness to consider starting their own businesses. The immediate need for entrepreneurial and business management skills training was apparent.

5.8.9 Learners were not noticeably aware of entrepreneurship as such, of entrepreneurial attitude and attributes as a given which need to be developed, and of entrepreneurship as a possible career option.

In the next chapter the findings of the literature study and the empirical investigation will be summarised and final conclusions and recommendations will follow.
CHAPTER 6

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

The fundamental aim of this investigation is to identify a measuring instrument with which to determine entrepreneurial attitude and, in so doing, to raise awareness of entrepreneurship as a career option for the school leaver. The role and identity of a school leaver/a young work seeker/a graduate/a diplomat as an employee has shrunk to the point that alternative roles and identities need to be considered. Two of these alternatives are generating one’s own income (entrepreneurship) and continued unemployment. At various points during this investigation the severity of unemployment in South Africa was pointed out. Entrepreneurship is viewed as a counterbalance to high unemployment and slow economic growth.

In order to identify entrepreneurial attitude and raise awareness of entrepreneurship as a career option, research was done in the form of a literature study, to determine what entrepreneurship and entrepreneurial attitude are and who the entrepreneur is. Factors affecting entrepreneurship and the various measuring instruments that had been used over the decades were also investigated in depth in previous chapters. A specific measuring instrument, the GET, was administered to a group of grade 11 learners/prospective school leavers, in order to determine the level of entrepreneurial attitude present in the sample as well as their awareness of entrepreneurship as a career option. Additional information was gathered from the sample by adding questions to the original questionnaire, based on biographical issues. By applying cross tabulation, trends regarding the exposure to entrepreneurial education, interest in general career choices, expectations of finding employment, willingness to generate an own income or to start a business and the impact of knowing people who are involved in the world of business, were found.
The aim of this chapter is to provide a synthesis of the research that was done. It is therefore essential to summarise the aim of the study and the methods used for this investigation. Following this, the main findings from the empirical research will be discussed. Conclusions drawn and the limitations of the investigation will then be addressed. Recommendations arising from the findings will follow, which will include the implications of these recommendations and suggestions for future research (Suchanandan 1998:157).

6.2 AIMS OF THE STUDY

The primary aim was to identify a measuring instrument that is practical, useful, relatively simple to apply and interpret and that can be used by educators and school counsellors in South African schools.

The secondary aim of the study was to identify and discuss what constitutes an entrepreneur.

A tertiary aim was to determine what entrepreneurship and entrepreneurial attitude are and how these contribute to who the entrepreneur is. Who the enterprising person is and where such a person fits into the concept of entrepreneurship, were also targeted.

6.3 RESEARCH METHOD

In order to achieve the above aims, the method of research was dichotomous:

6.3.1 A literature study

The literature study investigated the following:

- The concepts of entrepreneurship, entrepreneurial attitude and the entrepreneur, as well as the various models on the development of these concepts. It also short-listed entrepreneurial traits
common to the entrepreneur.

- Factors influencing entrepreneurship and measuring instruments used for identifying entrepreneurs.

6.3.2 An empirical research

A questionnaire, the GET (General Enterprising Tendencies test), was administered in an attempt to identify entrepreneurial attitude and to determine whether awareness of entrepreneurship as a career option had been raised.

6.4 FINDINGS

6.4.1 Findings from the literature study

The entrepreneur seems to be a difficult person to capture in one definition. The role of the entrepreneur at the helm of his own new venture or within a well-established organisation may vary from initiator and risk-taker to employee, administrator, manager. The person called the entrepreneur seems to be a multi-skilled person functioning on multiple levels during the life of a business or an organisation. The entrepreneur takes on various roles at various stages of the development of the business.

Separating the entrepreneur from the process of entrepreneurship seems to be ineffective. Entrepreneurship is deemed a developmental process within which what the individual DOES (entrepreneurial behaviour) has more impact on creating a business than WHO (an entrepreneur) the individual is.

Personal attributes assigned to the entrepreneur represent an image that can be recognised and identified in every person. These personal attributes are seen as a set of enterprising competencies
that can be exercised in any other context apart from business with the same degree of success. These competencies (personality variables, communications skills, managerial, analytical and career skills, knowledge and attitude) can be learned and are activated or put into operation by opportunity or threat within the labour market, resulting in what is described as entrepreneurial behaviour. A particular mind set, then, fine-tunes enterprising competencies into entrepreneurial attitude expressed as entrepreneurial behaviour.

The beliefs and thoughts of a person (cognitive component of attitude) regarding the entrepreneurial process; the feelings of that person (affective component) about this and his behaviour (behavioural or conative component) towards this process are the essentials of attitude and set the entrepreneurial process in motion. Attitude, therefore, plays an essential role in the individual behaving in an entrepreneurial manner. Education (even the lack of it); being displaced or part of a minority group; loss of status due to political change; economic growth and unemployment: these are a number of factors that have a decisive impact on the decision-making process of a school leaver/prospective entrepreneur. Choosing entrepreneurship for entry into the labour market may now become a viable option.

In order to raise awareness of the school leavers’ own entrepreneurial potential and then put them on the road to develop these strengths and weaknesses, an appropriate measuring instrument was identified. This instrument highlighted the specifically entrepreneurial constructs that had been identified in the literature, namely, vision, need for achievement, calculated risk-taking, internal locus of control, need for autonomy, opportunism, and creativity and innovation. This instrument, the GET, seemed to be the most appropriate to use in order to raise awareness of personal entrepreneurial qualities, to explore the fact that certain qualities need to be developed and to get an indication of the effect that entrepreneurship training and/or economic education has already had on grade 11 learners in terms of their career choices. It was found that the specific aim of the GET was the selection of prospective entrepreneurs and the determination of the training needs of entrepreneurs involved in creating their own small businesses.
6.4.2 Findings from the empirical investigation

The findings gained from the composite questionnaire will be discussed under three headings:

1. Identifying entrepreneurial attitude.
2. Raising awareness of entrepreneurship as a career option.
3. Additional information gathered from the composite questionnaire.

6.4.2.1 Identifying entrepreneurial attitude

- The questionnaire did succeed in identifying the levels of entrepreneurial attitude in grade 11 learners. The levels of entrepreneurial attitude of learners were found to be low in comparison with British norms. Learners seemed not to be noticeably enterprising and/or entrepreneurial in their activities and behaviour.
- Keeping in mind the low levels of entrepreneurial attitude in the sample in general, Zulu and Xhosa speakers showed higher levels of entrepreneurial attitude.
- Learners showed an average to low interest in the Enterprising work environment (entrepreneurship). However, the Zulu and Xhosa speakers of the sample had a higher interest in this category than the English and Afrikaans speakers.
- Learners who belong to complete families (father, mother, siblings) had higher levels of entrepreneurial attitude.

6.4.2.2 On raising awareness of entrepreneurship as a career option

- Learners are not exposed in significant numbers to economic education and/entrepreneurial training as part of the school curriculum or even by means of extra-curricular activities.
- Although learners expressed a willingness to consider generating their own income, they were not aware of entrepreneurship as a possible career option.
6.4.2.3 Additional information from the GET

- The qualities that constitute need for achievement were present in average levels in a significant number of learners.
- Learners showed little interest in career options and job opportunities in general, as was categorised in the adaptation of Holland's occupational choices. Learners, however, indicated a high interest in the Realistic work environment.

6.5 CONCLUSIONS

6.5.1 Conclusions from the literature study

The trait approach, looking at personal characteristics, places too much of a limit on the attempts to identify who the entrepreneur is. The economic framework has been found lacking because economists were reluctant to include the psychological aspects of entrepreneurship into the economic model. The multi-faceted nature of entrepreneurship and the multiplicity of entrepreneurial activities extend beyond psychology and economy into sociology. The entrepreneurial person's personal, professional and business relationships have all become aspects for consideration.

The role of the entrepreneur is determined to a large extent by the stage at which he finds himself within the entrepreneurial process and is characterised by the behaviour that is required at that particular stage. The approach to identifying the entrepreneur and defining entrepreneurship has undergone progressive change and includes the fact that entrepreneurial behaviour and skills can be taught and learned. The entrepreneurial process, the entrepreneur's behaviour, attitude and activities and the newly created venture are effectively interwoven. The entrepreneur entertains thought patterns and decision-making processes in an entrepreneurial way. These thought patterns and decision-making processes are learnt behaviour.
Entrepreneurial attitude, as is the case with attitude in general, can be changed. Educators, practitioners and parents have an impact on feelings, thoughts, behavioural intentions and attitude formation by means of entrepreneurial education and training programmes (Robinson et al 1991:24). Training and experience have become vital as far as entrepreneurship is concerned.

Because of the paradigm changes that took place and the boundaries that were tested and reset (Hornaday 1992:21), prospective entrepreneurs need to be assessed and identified more effectively. "Business development and personal development are inextricably intertwined ... within the interventions ... is an aim to increase the personal awareness of the people who run their own businesses with a view to making that more fulfilling and satisfying for them. If we can achieve personal development business development will follow automatically." (DUBS 1994:20.) The GET was found to be a useful tool in the classroom. It was simple, easy to administer, self-scoring and could be interpreted by the testee or learner as well as the educator or counsellor.

6.5.2 Conclusions from the empirical investigation

6.5.2.1 Testing the hypotheses

Hypothesis One: There is a significant difference between the number of grade 11 learners who were exposed to Economic Education and/or Entrepreneurial Training within the school curriculum and the number of learners who have not been exposed.

It was found that a significantly high number of grade 11 learners were not exposed to Economic Education and/or Entrepreneurial Training as part of the school curriculum or as extra-curricular activities. There is a significant difference between the grade 11 learners exposed and those not exposed to Entrepreneurial Education.

Based on the above findings the hypothesis is accepted.
Hypothesis Two: Awareness of entrepreneurship as a possible career option has been raised significantly due to unemployment.

From the results of the empirical investigation it was found that there was a significant dependence between learners expecting to generate their own income and learners expecting to find employment. Once learners were willing to consider generating their own income or starting their own businesses, their expectations of finding employment increased significantly. One may conclude at this point that awareness of entrepreneurship as a possible career option has been raised significantly due to unemployment.

Based on the above findings the hypothesis is accepted.

Hypothesis Three: There is a significant dependence between the entrepreneurial attitude of grade 11 learners and the Enterprising work environment career choice indicated by these learners.

It was found from the empirical research that:
- firstly, the levels of entrepreneurial attitude of learners were notably low; and
- secondly, the learners showed an average to low interest in the Enterprising work environment as a career option.

However, the dependence between the entrepreneurial attitude of grade 11 learners and the Enterprising work environment as a career choice was not significant.

Based on the above findings the hypothesis cannot be accepted/is rejected.
6.5.2.2 Conclusions on the findings of the GET

- The overall low levels of entrepreneurial attitude amongst grade 11 learners pose the question whether learners are educated and brought up to think and behave in an entrepreneurial manner. A culture of entrepreneurship is not prevalent amongst the parents, educators and learners as prospective school leavers in South Africa (Erwee 1987:742-743).
- Learners with low levels of entrepreneurial attitude, as was found in the sample, are not susceptible to entrepreneurship as a career option.
- The above average to low levels of interest of learners in career options and job opportunities represented by Holland's occupational choices (adapted version) may indicate a lack of career information, self-knowledge, career-planning skills and knowledge of the labour market and its trends.
- The fact that learners expressed a willingness to consider generating their own income, even though they were unaware of entrepreneurship as a career option, emphasises the immediate need for entrepreneurial and business management skills training.
- The higher levels of entrepreneurial attitude found amongst Zulu and Xhosa speakers (compared with English and Afrikaans speakers) may be due to exposure to poverty, displacement and political unrest for a prolonged period of time. Research has proved the significant empowering effect these factors have on the development of entrepreneurial attitude, behaviour and skills of these particular groups.
- The low interest in general that learners showed in the career options they were presented with may indicate that learners are not yet able to make adequate career choices, are not ready to make those career choices and/or are not knowledgeable enough about the labour market and the world of work to make career decisions.
- Taking into account the high unemployment rate amongst school leavers, this study made one aware of the fact that grade 11 learners from the three schools in the Pietermaritzburg area do not consider entrepreneurship as a possible career option.
• The low level of interest, in general, in career options and job opportunities may be indicative of the shortage/absence of effective career education and counselling throughout the school careers of the learners.

6.6 LIMITATIONS OF THE INVESTIGATION

A number of problems were experienced once the composite questionnaire had been administered, scored and interpreted:

• The below average interest of learners in entrepreneurship as a career option may have something to do with the career options learners were presented with (salesperson; art dealer; administrative manager; bank manager; consultant; hotel manager; sports promoter; business owner and more). Many of the job options mentioned in the other five work environments of Holland could also form a basis for new venture creation or for generating one’s own income.

• The results of this study cannot be accepted on face value, as the researcher suspects that a number of the Zulu and Xhosa language users did not fully grasp the instructions and did not fully understand the questions. After each testing session the researcher requested learners who did not fully understand the English used in the questionnaire to indicate their response by making a cross on page 8 of the questionnaire. Fifty-six such crosses were made. That is 20.66% of the sample.

6.7 RECOMMENDATIONS FOR FURTHER INVESTIGATION

• Business reality has proved itself to be a significant selector of suitable candidates for entrepreneurship as an occupation. The educational environment within which learners find themselves should provide and reflect the realities, opportunities and characteristics of the business world, in order to cultivate the natural entrepreneurial inclinations of children and learners. Research done locally indicated that 30% of children are natural entrepreneurs when
entering grade 1. However, this inclination decreases to 6% after twelve years in the school system (Kent 1990:12).

In order to allow more individuals to take their place in society as entrepreneurs and therefore creators of employment, the fact that entrepreneurship can be taught (Van Aarde and Van Aarde 1997:191) needs to be recognised. Personality traits or personal qualities, attitude and behaviour function in close relation with one another and affect one another. Attitude and behaviour can change; entrepreneurial skills can be acquired through training: these facts have significant implications for educators, practitioners and parents. These role players are left with the task of making young learners and prospective school leavers aware of the fact that they might have what it takes and/or can acquire and improve the skills needed to generate their own income and start their own businesses. Once entrepreneurial skills and motivation have been taught, an increase in entrepreneurial activities can be expected (Leibenstein 1987:196).

By addressing the need for a prospective entrepreneur/school leaver to understand the personal qualities required to start and run a business successfully and for this entrepreneur/school leaver to make the decision to develop these qualities, educators and parents need to create and provide a supportive environment for the entrepreneurial process to take its course. This environment should allow the development of the individual through training and consultancy interventions towards effective economic outcomes.

The school leaver will benefit greatly from being made aware of his own entrepreneurial potential from an early age. Becoming aware of these natural tendencies when they are young and at the embryonic stage of their careers, would give prospective school leavers easier access to the complex nature of entrepreneurship and the world of work. This awareness could enable the learner/school leaver to change his behaviour and actions, which will affect his development as an entrepreneur and, consequently, the performance of his business.

The GET provides information on the level of entrepreneurial attitude of learners and does raise awareness of entrepreneurship as a possible career option. However, when a researcher needs to identify the entrepreneurial capacity of an individual, he will need a combination of
interviewing techniques and a questionnaire, therefore, a combined qualitative-quantitative approach.

One would want to pose the question whether this kind of questionnaire could be used much earlier in a learner’s school career in order to raise awareness of entrepreneurship and provide ample time for the development and acquisition of entrepreneurial skills.

The labour market and society in general require enterprising activities and entrepreneurial behaviour in order to provide a healthy environment within which prospective school leavers may develop adequate income generating and business skills (Pahn 1993:7). These activities and skills need to be taught and nurtured from a very young age in the children who will be job creators and employers one day.

Learners need to be exposed more to entrepreneurial education in order to increase their levels of entrepreneurial attitude and behaviour. Taking into account the fact that entrepreneurial qualities are present in every person and that entrepreneurial attitude and behaviour can be developed, an action plan is required to empower parents and educators at primary and high school level, in order to raise awareness of personal entrepreneurial attitude and entrepreneurship as a career option.

6.8 IN CONCLUSION

This study has confirmed the symbiotic relationship of entrepreneurial attitude and entrepreneurship and has also confirmed the fact that entrepreneurship is a career option. The researcher trusts that the investigation will convince at least some of its readers that, as far as the future of the youth of South Africa is concerned, parents, educators, counsellors and strategic decision-makers should all work together to -

“DEVELOP A CULTURE WHERE YOUNG SCHOOL LEAVERS WILL ALSO BECOME JOB CREATORS AND NOT JUST JOB SEEKERS.”

(Slogan used by the Centre for Entrepreneurship, University of Stellenbosch.)
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APPENDIX A

GET

(General Enterprising Tendencies test)
General Enterprising Tendencies Test (GET)
Entrepreneurial Interest.

This questionnaire consists of three sections, namely:
A. Instructions
B. Personal Information
C. The Questionnaire

A. INFORMATION

(i) Step-by-step instructions are given as you progress through this questionnaire. Please follow them and ask the facilitator if you are unsure of what to do.

(ii) Do not write anything in the squares numbered 1 - 3.

(iii) Complete the following details as they are presented to you:
E.g. write down your age in the squares on the right. Use one square for each number, for example 1 7 if you are 17 years old.

(iv) Next, indicate your gender and other information required by writing the appropriate numbers in the squares on the right.

(v) You need not write down your name.

(vi) Your co-operation is sincerely appreciated.
B. PERSONAL INFORMATION

(1) Age (in completed years)

(2) Gender: Male = 1 Female = 2

(3) What language do you speak at home?
English = 1 Afrikaans = 2 Zulu = 3 Xhosa = 4 Other = 5

(4) What school do you go to?
Linpark High School = 1
Edendale Technical School = 3
Zibuzale High School = 4

(5) Are you from a:
* single parent family = 1
(Mother/Father)
* a complete family = 2
(Mother and father)
* foster family or guardian = 3
(no parents/not in the custody of your biological parents)?

(6) Who do you know that started their own business or who is a businessman/woman?
Mother = 1 Relative = 5
Father = 2 Friend = 6
Brother = 3 Yourself = 7
Sister = 4 None = 8

(7) Have you been exposed to:
* Economic Education e.g. Business Economics and/or Economics as school subjects = 1
* Entrepreneurship Training (at school or elsewhere) = 2
* Both of the above (1 + 2) = 3
* None of the above (1 + 2)? = 4

(8) Do you expect to find employment after school or once you have completed tertiary education?
Yes = 1 No = 2 Unsure = 3
(9) Do you consider generating your own income once you have completed school and/or any tertiary training?  
Yes = 1  
No = 2  
Unsure = 3

(10) Do you have a clear idea of what you want to do once you have finished school?  
Yes = 1  
No = 2  
Unsure = 3

(11) Whether or not you have a clear idea of what you want to do once you have finished school, you are requested to indicate prospective career choices/job preferences for the future. Six broad occupational options are indicated below. Please indicate your interest in each of these areas by writing down the appropriate number in the square on the right. The numbers have the following meaning:

1 = No interest  
2 = Slight interest  
3 = Some interest  
4 = Definite interest  
5 = Marked interest  
6 = Very high interest

*Realistic work environment (R): Machine operator; fireman; fitter; dressmaker; technicians; technologists; engineer; caterer; motor mechanic and more.

*Investigative work environment (I): Regional planner; financial analyst; lawyer; medical practitioner; psychologist; engineer; medical technician and more.

*Artistic work environment (A): Editor; actor; designer; musician; television announcer; photographer and more.

*Social services work environment (S): Occupational safety officer; housekeeper; educator; police officer; speech therapist; social worker; sports coach; game warden and more.

*Enterprising work environment (E): Salesperson; art dealer; administrative manager; bank manager; consultant; hotel manager; sports promoter; business owner and more.

*Conventional work environment (C): Accountant; clerk; bookkeeper; receptionist; archivist; proofreader and more.
C. THE GET QUESTIONNAIRE

The purpose of this questionnaire is to bring together and measure a number of personal ‘tendencies’ common to an enterprising person. These are of importance when you make a career decision.

HOW TO COMPLETE THIS QUESTIONNAIRE

This exercise could not be simpler:

➢ It will only take about ten minutes
➢ There are no right or wrong answers
➢ It will help you to gain a better understanding of yourself

In the following pages of this booklet, you will find a list of 54 different statements. You are merely required to agree or disagree with the statements that have been made. For example, one statement might say:

I prefer swimming to running

or

I often take on too many tasks.

Answer each question by writing down the appropriate number in the square on the right of each question:

➢ Write down ‘1’ if you AGREE with the statement,

OR

➢ Write down ‘2’ if you DISAGREE with the statement.

If, for any reason, you neither fully agree nor fully disagree with a particular statement, please try to decide whether you agree with it MORE or disagree with it MORE and write down the appropriate number.

Please be honest when completing the questionnaire. The more accurate your answers are increases the precision of the questionnaire.

Now turn over the page and begin the test.
1. I would not mind routine unchallenging work if the pay was good.  
2. When I have to set my own targets, I set difficult rather than easy ones.
3. I do not like to do things that are novel or unconventional.
4. Capable people who fail to become successful have not taken chances when they have occurred.
5. I rarely day dream.
6. I usually defend my point of view if someone disagrees with me.
7. You are either naturally good at something or you are not, effort makes no difference.
8. Sometimes people find my ideas unusual.
9. If I had to gamble R10, I would rather buy a raffle ticket than play cards.
10. I like challenges that really stretch my abilities rather than things I can do easily.
11. I would prefer to have a reasonable income in a job that I was sure of keeping rather than a job that I might lose if I did not perform well.
12. I like to do things in my own way without worrying about what other people think.
13. Many of the bad times that people experience are due to bad luck.
14. I like to find out about things even if it means handling some problems whilst doing so.
15. If I am having problems with a task I leave it and move on to something else.
### Questions 16 to 33 of 54

16. When I make plans to do something, I nearly always do what I plan.  
17. I do not like sudden changes in my life.  
18. I will take risks if the chances of success are 50/50.  
19. I think more of the present and the past than of the future.  
20. If I had a good idea for making some money, I would be willing to borrow some money to enable me to do it.  
21. When I am in a group I am happy to let someone else take the lead.  
22. People generally get what they deserve.  
23. I do not like guessing.  
24. It is more important to do a job well than to try to please people.  
25. I will get what I want from life if I please the people with control over me.  
26. Other people think that I ask a lot of questions.  
27. If there is a chance of failure I would rather not do it.  
28. I get annoyed if people are not on time.  
29. Before I make a decision I like to have all the facts no matter how long it takes.  
30. When tackling a task I rarely need or want help.  
31. Success cannot come unless you are in the right place at the right time.  
32. I prefer to be quite good at several things rather than very good at one thing.  
33. I would rather work with a person I liked, but who was not very good at the job, than work with someone I did not really like who was very good at the job.
### Questions 34 to 49 of 54

<p>| | |</p>
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| 34. | Being successful is the result of working hard, luck has nothing to do with it.  
   |   | 54 |
| 35. | I prefer doing things in the usual way rather than trying out new ways.  
   |   | 55 |
| 36. | Before making an important decision, I prefer to weigh up the pros and cons rather quickly rather than spending a lot of time thinking about it.  
   |   | 56 |
| 37. | I would rather work on a task as a member of a team than to take responsibility for it myself.  
   |   | 57 |
| 38. | I would rather take an opportunity that might lead to even better things than have an experience that I am sure to enjoy.  
   |   | 58 |
| 39. | I do what is expected of me and follow instructions.  
   |   | 59 |
| 40. | For me, getting what I want has little to do with luck.  
   |   | 60 |
| 41. | I like to have my life organised so that it runs smoothly and to plan.  
   |   | 61 |
| 42. | When I am faced with a challenge I think more about the results of succeeding than the effects of failing.  
   |   | 62 |
| 43. | I believe that what happens to me in life is determined mostly by other people.  
   |   | 63 |
| 44. | I can handle a lot of things at the same time.  
   |   | 64 |
| 45. | I find it difficult to ask favours from other people.  
   |   | 65 |
| 46. | I get up early, stay late or skip meals in order to get special tasks done.  
   |   | 66 |
| 47. | What we are used to is usually better than what is unfamiliar.  
   |   | 67 |
| 48. | Most people think that I am stubborn.  
   |   | 68 |
| 49. | People’s failures are rarely the result of their poor judgement.  
   |   | 69 |
Questions 50 to 54 of 54.

50. Sometimes I have so many ideas I do not know which one to pick.  
51. I find it easy to relax on holiday.  
52. I get what I want from life because I work hard to make it happen.  
53. It is harder for me to adapt to change than keep to routine.  
54. I like to start new projects that may be risky.

Thank you very much for completing this questionnaire.
ASSESSING THE RESULTS

Very carefully copy the answers which you indicated on the questionnaire, onto the answer sheet (page 10) by encircling '1' or '2' under the corresponding number like this:

CALCULATING YOUR SCORE

Starting with box 21 in the top right hand corner of your answer sheet and, working across the sheet to the left, give yourself one point for every '2' that you have circled in the shaded boxes on that line like this:

Similarly give yourself one point for every '1' that you have circled in the unshaded boxes on that line like this:

Now add up your total score in the top row and write it in the margin. Do the same for the remaining eight rows scoring in the same manner as above.

When you have finished transfer your scores for each row to the boxes below.

<table>
<thead>
<tr>
<th>Row 1</th>
<th>Row 2</th>
<th>Row 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 4</td>
<td>Row 5</td>
<td>Row 6</td>
</tr>
<tr>
<td>Row 7</td>
<td>Row 8</td>
<td>Row 9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Section 1</th>
<th>Add the scores for row 1 and row 6 together.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Section 2</td>
<td>Use the score from row 3 only.</td>
</tr>
<tr>
<td>Section 3</td>
<td>Add your scores in rows 5 and 8.</td>
</tr>
<tr>
<td>Section 4</td>
<td>Add your scores in rows 2 and 9.</td>
</tr>
<tr>
<td>Section 5</td>
<td>Add your scores in rows 4 and 7</td>
</tr>
</tbody>
</table>
ASSESSING YOUR SCORE

Each section assesses particular attributes. A high score in any category means that you have many of the qualities which that particular section has been measuring. The five sections are as follows:

SECTION 1  Need for achievement
Maximum score - 12;  Average score - 9

If you have scored well here, you have many if not all of the following qualities:

Forward looking
Self sufficient
Optimistic rather than pessimistic
Task orientated
Results orientated
Restless and energetic
Self confident
Persistent and determined
Dedication to completing a task.

Section 2  Need for autonomy/ independence
Maximum score - 6;  Average score - 4

The person who scores high in this section:

Likes doing unconventional things
Prefers working alone
Needs to do their ‘own thing’
Needs to express what they think
Dislikes taking orders
Likes to make up their own mind
Does not bow to group pressure
Is stubborn and determined.
### SECTION 3  
**Creative tendency**  
*Maximum score - 12; Average score - 8*

A high score in this section means that you:

- Are imaginative and innovative  
- Have a tendency to daydream  
- Are versatile and curious  
- Have lots of ideas  
- Are intuitive and guess well  
- Enjoy new challenges  
- Like novelty and change.

### SECTION 4  
**Moderate/ calculated risk taking**  
*Maximum score - 12; Average score - 8*

If you have done well in this section, you tend to:

- Act on incomplete information  
- Judge when incomplete data is sufficient  
- Accurately assess your own capabilities  
- Be neither over nor under-ambitious  
- Evaluate likely benefit against likely costs  
- Set challenging but attainable goals.

### SECTION 5  
**Drive and determination**  
*Maximum score - 12; Average score - 8*

If you have achieved a high score in this section, you tend to:

- Take advantage of opportunities  
- Discount fate  
- Make your own luck  
- Be self confident  
- Believe in controlling your own destiny  
- Equate results with effort  
- Show considerable determination.

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**THANK YOU VERY MUCH FOR COMPLETING THE GET TEST**

*If you wish, you can discuss your results with the person who supervised your test.*