Business Education and Enterprising tendencies

- A study of education as a factor in enterprising

Authors: Gabriel Henderson
Marcus Palm

Supervisor: Zsuzsanna Vincze

Student
Umeå School of Business and Economics
Spring semester 2011
Degree project, 30 hp
Abstract

For a long time it has been recognized that entrepreneurship is very important for society, which is one of the main challenges for EU and it has been stated that not enough people start their own enterprise (Eurobarometer, 2010, p.3). This shows that it is beneficial to get a better understanding of how enterprising can be increased in society.

In finishing an undergraduate degree in business one should learn how to found, operate and manage an enterprise (Umeå University, 2012). In this fashion what this study will examine is if business students show higher enterprising tendencies than non-business students (students in other social sciences in this study are referred to as non-business students). As EU’s policy makers wants more people to start their own enterprise it is beneficial to shed light on a business education in relation to this; to see if it increases enterprising tendencies of individuals. This is measured with the Durham University General Enterprising Tendency test (GET-test) which tests the most prominent and important entrepreneurial characteristics when starting an enterprise; namely need for achievement, need for autonomy, drive and determination, risk-taking and creative tendency. The results are supplemented by a focus group in order to create more understanding of the phenomena and it consists of business students and non-business students where the participants receive questions corresponding to the entrepreneurial characteristics measured in the GET test and it thus offers a deeper understanding on enterprising tendencies in relation to education.

The research question for this study is: Are enterprising tendencies higher for business students than non-business students? The results showed that business students did in total and with significance score higher on the GET-test and thus showed higher levels of enterprising tendencies on aggregate. When it comes to the five characteristics business students scored significantly higher in need for achievement, need for autonomy, drive and determination and also risk-taking but did have a lower score than non-business students in creative tendency. The focus group results supported the GET test results in that business students show higher level of the entrepreneurial characteristics.

The results indicate that a business education, where one receives knowledge about enterprising, enhances enterprising tendencies which is in line with that knowledge in business is important and affects the success of a new business. In line with this is what Sanchez found in his study, namely that through a business education scores on autonomy and risk-taking becomes significantly higher (2010, p.249). The results also indicate what can be better in a business education and that is to enhance business student’s creativeness in order for more business students to start their own enterprise. Another implication is that students from other social sciences might come up with good ideas for a business but does not have enough knowledge about enterprising which affects the likelihood of them starting a business and the four characteristics in which business students scored higher in. From this study and its empirical findings we suggest a number of further researches such as how creative tendencies can be increased in individuals by a business education and how having knowledge in business is related to enterprising tendencies.

Keywords: entrepreneurship, enterprising, entrepreneurial characteristics, GET, enterprising tendencies, business education, education
# Table of Contents

1. Introduction.......................................................................................................................... 1  
   1.1 Research background ........................................................................................................ 1  
   1.2 Problem statement ............................................................................................................ 3  
   1.3 Purpose .............................................................................................................................. 4  
   1.4 Research question ............................................................................................................. 4  
   1.5 Chapter disposition .......................................................................................................... 5  

2. Theoretical methodology .......................................................................................................... 7  
   2.1 Introduction ....................................................................................................................... 7  
   2.2 Epistemological and ontological considerations ................................................................. 7  
   2.3 Research strategy .............................................................................................................. 8  
   2.4 Research design ............................................................................................................... 9  
   2.5 Theoretical contribution ................................................................................................. 10  
   2.6 Method for literature review ........................................................................................... 11  

3. Literature review .................................................................................................................... 12  
   3.1 Introduction ..................................................................................................................... 12  
   3.2 Definitions of an Entrepreneur ....................................................................................... 15  
   3.3 Importance of Entrepreneurship .................................................................................... 16  
   3.4 Entrepreneurial Characteristics ..................................................................................... 17  
   3.5 High Need for Achievement ......................................................................................... 18  
   3.6 Need for Autonomy ......................................................................................................... 19  
   3.7 Creative Tendency ........................................................................................................... 20  
   3.8 Drive and Determination ................................................................................................. 21  
   3.9 Risk-taking ...................................................................................................................... 21  
   3.10 A Business Education in Relation to Starting a New Enterprise .................................... 22  
   3.11 Theoretical framework and hypotheses ....................................................................... 24  

4. Practical methodology ............................................................................................................. 27  
   4.1 Data collection methods ................................................................................................. 27  
   4.2 Respondents and sample representativeness ................................................................. 28  
   4.3 The general enterprising tendency test (GET) ............................................................... 31  
   4.4 The focus group ............................................................................................................... 32  
   4.5 Analysis design ............................................................................................................... 33  
   4.6 Truth criteria ................................................................................................................... 34
4.7 Research ethics ............................................................................................................. 35
4.8 Limitations of the study ............................................................................................. 35
5. Empirical findings .......................................................................................................... 37
  5.1 Quantitative findings .................................................................................................. 37
  5.2 Qualitative findings .................................................................................................... 44
6. Analysis and Discussion ................................................................................................ 50
  6.1 Business education in relation to the total score on enterprising tendencies .......... 51
  6.2 Need for Achievement in relation to empirical findings ............................................ 53
  6.3 Need for Autonomy in relation to empirical findings ............................................... 54
  6.4 Creative Tendency in relation to empirical findings .................................................... 56
  6.5 Drive and Determination in relation to empirical findings .......................................... 58
  6.6 Risk Taking in relation to the empirical findings ......................................................... 59
7. Conclusion and further research .................................................................................... 61
  7.1 Conclusion and implications ....................................................................................... 61
  7.2 Further research .......................................................................................................... 63
Reference list ..................................................................................................................... 65

List of figures

Figure 1 Literature review .................................................................................................. 14
Figure 2 Theoretical framework ......................................................................................... 26

List of tables

Table 1. Exhaustive list of references for the entrepreneurial characteristics ...................... 18

Appendix 1 - The GET test

Appendix 2 – Focus group questions
1. Introduction

The introductory chapter outlines the main emphasis of this study and presents the background on which it is built. It furthermore introduces theoretical lenses which this study departs from and ends in a problem statement and the research question.

1.1 Research background

An entrepreneur and the consequential action of such an entity; entrepreneurship, is a discipline that is claimed to be a vital for economic development (Schumpeter, 1934). Schumpeter (1934) was one of the first to emphasize this, and that the entrepreneur is relevant to study separately from regular business owners and managers. There are many definitions aiming at defining entrepreneurship but no universally accepted one, which testifies to the complex and versatile nature of the domain (Carland et al. 1988, p. 33). One definition that captures many variables of entrepreneurship that we find relevant is Hull et al. (1980), “a person, who organizes, operates and assumes the risk for a business venture” (Hull et al. 1980, p. 1).

Looking at Hull’s definition of an entrepreneur, inevitably leads to the question of characteristics and traits, in other words, what distinguishes an entrepreneur in terms of behavior or personality (Carland et al. 1988). This has been an infected question within the entrepreneurship domain for a long time, where some claim it is impossible to assign traits to an entrepreneur as all people are different (Gartner, 1988, p. 58). Others say that it is possible and in fact necessary, (Carland et al. 1988, p. 33). Those advocating the possibility of assigning traits to entrepreneurs might denominate following traits as common for entrepreneurs; innovativeness, risk-taking, problem solving ability, locus of control, self-determination, tolerance towards ambiguity, coping ability, as taken from the entrepreneurial syndrome model (Matthews, 2008, p. 22).

Whether entrepreneurs have certain characteristics in common or not, it can at least be argued that some characteristics are needed in order to become a successful entrepreneur (Cromie & Callaghan, 1997, p.66). Furthermore vital elements such as to being willing to assume risk and having a drive and determination to achieve are essential for an entrepreneur (Cromie & Callaghan, 1997, p.66). It should also be noted that these characteristics need not be qualities inherited by a person, it can be actions undertaken in the form of a role assumed by the entrepreneur. In line with this, Gartner concludes that entrepreneurship is a role that individuals undertake when starting a new business (1988, p. 64).
More than requiring certain characteristics, an entrepreneur needs business education in order to be successful in launching a new venture (Gnyawall & Fogel 1994, p. 55). According to Ucbasaran et al. (2003 p.208) human skills and capabilities are important in starting a new business. Put in others words, one needs knowledge on how to start a business in order to do so or at least do so successfully. Wiltbank et al. (2009, p.1) moreover states that businesses exists because of the entrepreneur with her/his knowledge can see opportunities, what the customers are missing etc. and are able to take action in order to provide that service or product.

One needs more than just a good idea to be successful, many more factors are at play and one important factor is knowledge. According to Gnyawall & Fogel, one important factor that affects the start of a new business is business skills (1994, p. 55). Arguably an entrepreneur needs certain characteristics to be successful and it should be noted that most people are not born to be entrepreneurs, but become so by acquiring knowledge through hard work and experience (Garvan & O’Cinneide, 1994, p. 3). However there are examples of people not having a business education or experience that still succeed with their business ventures as proposed by Audia & Rider (2005). They bring up examples such as Bill Gates and Paul Allen, William Hewlett and David Packard, Elliot and Ruth Handler and Harold Matson founding the toy company Mattel (2005, p. 22-23). Even though research suggests business education is beneficial there are real life examples showing that just having an idea could be enough. Therefore it is relevant to test enterprising tendencies, because there are examples of non-business educated entrepreneurs being successful even though research suggests the opposite. Moreover, when starting a business one has to be bold, determinant, and imaginative as uncertainty will inevitably exist (Cromie & Callaghan, 1997, p.66).

The characteristics that this study will focus on are need for achievement, need for autonomy, creative tendency, risk taking, and drive and determination. These characteristics are the most prominent in an entrepreneur and what is needed for an entrepreneur when starting an enterprise (Prottas, 2011; Schumpeter, 1934; McClelland, 1961; Caird, 1991; Hull et al. 1980). It is these characteristics that are measured in the General Enterprising Tendency Test and featured in the focus group which will be used in this study. The test measures scores on these five different characteristics, a higher score indicating higher enterprising tendency (Burns, 2003).

These characteristics will be seen as what is needed in an entrepreneur in order to start a business. This goes hand in hand with the definition of an entrepreneur as an individual starting an enterprise and in order to do so needs to organize, assume risk, engage in innovative and creative practices, drive to increase productive capacity and profit potential and to continually and purposefully search for innovation and new and better ways of doing business (McClelland, 1961; Drucker, 1985; Kirzner, 2009; Carland, 1984; Schumpeter, 1934; Mill, 1884).

More than having certain characteristics an entrepreneur needs an idea. But not only does the entrepreneur need a business idea, he also needs to have knowledge about starting and running a business successfully. An entrepreneur needs to acquire experience in the field of business and entrepreneurship which means to put in time and deliberate practice. The question becomes how an entrepreneur can deliberately practice to attain expertise and one answer is through education (Haase & Lautenschläger, 2010, p. 145).
According to Haase & Lautenschläger (2010, p.145) enterprising education is an important factor in developing entrepreneurial motivation, knowledge and skills in business. Moreover Sánchez (2010, p.249) found that through business education scores on self-efficacy and risk-taking becomes much higher and hence indicates that starting a business is more likely for business students than for non-business students. Sanchez (2010) tests two entrepreneurial characteristics and what we want to do is to test all five of the most prominent entrepreneurial characteristics. To our knowledge there has not been a study testing all five characteristics comparing business students to others which we find relevant and is a reason why this study is needed. A good example of what can happen if education in entrepreneurship is lacking is what Kirby & Ibrahim (2010, p.181) brings up. They state in their article that low entrepreneurship and creation rate of new ventures is due to lack of education and training in business and entrepreneurship. However it is important to mention that not all enterprising comes from people with higher education, but these are the groups tested in this study.

This study departs from entrepreneurship, its definitions and importance and goes on to extract entrepreneurial characteristics and maps its theoretical base. The most prominent characteristics will be the focus of attention and will then be connected to the test (GET) test which ultimately will be the tool of usage combined with a focus group in the empirical findings.

1.2 Problem statement

Entrepreneurship is important for the society as a whole and can contribute much in economic growth for a country (Baumol, 1968, p. 65; Henry et al. 2005, p. 98; Kirzner, 2009, p. 147). Hence it is logical to assume that it would be beneficial for a society to enhance entrepreneurial activity. Entrepreneurial activity (starting an enterprise) is of course based on that individuals take action to start a new business and to become entrepreneurs. If a society wants to increase entrepreneurial activity more people need to discover and develop their entrepreneurial characteristics (Caird, 1991, p. 179-181).

Nobody is born an entrepreneur but becomes one and entrepreneurship is something individuals undertake when starting a new business. How does an individual become willing to undertake the role of the entrepreneur, to start a new business that is? To be willing to do so the individual as stated need to have determination, need for achievement, need for autonomy, have low uncertainty avoidance, be creative and have business skills. These characteristics are developed over time and business education can enhance these in comparison to other educational directions. Moreover from previous literature these have been found to be the five most prominent characteristics when starting an enterprise which will be explained in the literature review.

If education is part of the answer to how one can enhance entrepreneurial activity in society the question becomes if a business education is effective in generating new ventures, compared to non-business education. In other words it will be tested if a business education is beneficial in developing entrepreneurial characteristics which in turn leads to higher enterprising tendencies.
Theory states having knowledge in the field of business is important but there are contradicting examples of people starting a successful business without a degree in business such as Steve Jobs and Michael Dell (Audia & Rider, 2005, p.24). This shows that testing enterprising tendencies in business students compared to non-business students is needed and relevant. In other words contradicting evidence to theory exists whether a business education is beneficial in starting an enterprise and in this study it will be, in accordance to this, tested if enterprising tendencies are higher for individuals with a business education background compared to students with another educational background.

Moreover, entrepreneurial characteristics have been measured in business students in comparison to non-business students but to our knowledge there has not been a study testing all five of the most prominent characteristics at the same time in this manner. In a previous study for example it was found that business students scored higher in need for autonomy and in risk-taking than non-business students (Sánchez 2010, p.249). What our study will contribute with is that all five of the most important and prominent entrepreneurial characteristics will be tested in this manner. This will be done in order to find indications and achieve a clearer and better understanding of how it is with a business education in relation to enterprising. This is especially relevant for higher education that would want to shed light on how different educational directions enhance enterprising tendencies. They would want to receive a better understanding of how a business education can affect all five prominent entrepreneurial characteristics; to have a clearer picture of how it is with a business education in relation to enterprising. There is not enough knowledge and not enough studies about this at hand and this is what this study will try to enhance.

1.3 Purpose

We aim to test if different education affects enterprising tendencies by measuring entrepreneurial characteristics in business students compared to non-business students. In this way we can see if education in business affects enterprising tendencies. With an education in business one’s expertise in the field is developed and should thus lead to a better understanding of the complex challenges faced by a modern enterprise which we argue affects enterprising tendencies. Put in other words it will be tested to what extent an education in business might positively affect the theoretical tendency to start a new business, not start-up frequencies, by testing entrepreneurial characteristics in business students compared to non-business students by using the GET test and a focus group consisting of business and non-business students. The aim of the focus group is to create deeper understanding and search for answers to the results of the GET test.

1.4 Research question

Are enterprising tendencies higher for business students than non-business students?

This will be tested by measuring if business students’ score higher on the Durham university general enterprising tendency test (GET) than non-business master students and thus show higher levels of enterprising tendencies. The test score results are then deeper researched by a focus group also consisting of both test groups.
1.5 Chapter disposition

Chapter 1: Introduction

The introductory chapter presents the background and the foundation of which the study is conducted. Beginning with the problem background the chapter introduces and motivates the need to carry out this type of study, the field of contribution and describes the gaps in the literature and introduces from where the GET test comes from. Furthermore it leads down to the summary of the purpose and presents the research question and the hypotheses.

Chapter 2: Theoretical methodology

After having introduced the subject of the study the theoretical methodology argues for the choices the authors as researchers make, based on perceptions of the world and knowledge. The chapter moreover argues for research design, research strategy, theoretical contribution this study aims for and how the literature review has been planned and conducted.

Chapter 3: Literature review

The literature review chapter presents the theoretical foundations of this study. It discusses the field of entrepreneurship, its definitions and importance. It then links education to enterprising in order to set the theoretical base in connection to the research purpose. Furthermore the chapter goes on into arguing for the entrepreneurial characteristics which the study claim is the most prominent and link them to the GET test. In this manner the literature review establishes a theoretical connection with the research question that boils down to the derivation of the hypotheses that are to be tested.

Chapter 4: Practical methodology

Having introduced and motivated the study in previous chapters the practical methodology prepares for the practical concerns for conducting the empirical part of the study and the analysis later on. Matters such as data collection, respondent selection, sampling and truth criteria will be argued for. The GET test and the focus group are more thoroughly introduced and it will be explained how they complement each other in terms of creating more thorough knowledge. The chapter ends with the research ethics applied in this study and the importance of ethical behavior. A limitations section is also included in order to clearly mention what this study could and could not do in terms of resources.

Chapter 5: Empirical findings

This chapter solely presents the empirical findings and comments it briefly so that the reader can get a better overview of the results. The research question in terms of hypotheses are answered but will be analyzed more thoroughly in the following chapter.
Chapter 6: Analysis and discussion

In this chapter the empirical findings will be linked to the theoretical framework in order to put the results in a larger context. The goal is to raise the level of abstraction and synthesize the findings with existing theory in order to see if the findings are coherent with it. It is accomplished by linking business education with the aggregate scores of the test groups from the GET and focus group and then contrast and compares the five entrepreneurial characteristics with the results of each respective characteristic.

Chapter 7: Conclusion and further research

As this is a very initial study in its topic this chapter will recommend further research options and possibilities to continue on the same path. It also concludes the study in terms of implications for relevant stakeholders based on the findings and raise further relevant questions.
2. Theoretical methodology

The methodological section of this study is divided in two chapters, theoretical methodology and practical methodology. The reason for this is structural effectiveness. This chapter, theoretical methodology, contains researcher views of the world, paradigms and the research strategy which this study builds on. It starts off with general researcher concerns and ends with more specific theoretical choices, strategies and designs.

2.1 Introduction

After both of us had taken the master’s program in entrepreneurship it seemed natural to continue the journey of learning in the field that became the focus of our intention. Having been presented to the most influential schools of thought in the field of entrepreneurship one started thinking and synthesizing the knowledge obtained and a certain curiosity emerged. This curiosity revolved around the practice of entrepreneurship and the question of enterprising. Is it possible to isolate special entrepreneurial characteristics and are these by any chance related to enterprising tendencies vis-à-vis business education. Theory suggested that be the case leading us wanting to test it empirically. However in order to embark on such a research project a thorough methodological base need to be set which is presented below.

2.2 Epistemological and ontological considerations

Business research does not exist in a “vacuum”, in other words it is not as in the natural sciences were there are constants that can be observed independently of change and human action (Bryman & Bell, 2007, p. 4). Social sciences and business research is constantly being accomplished and evaluated without any definite answer, therefore some scholars have suggested that it should be looked upon as an applied field (Bryman & Bell, 2007, p.5). Even though one might accept the view that the social world is continually being accomplished it does not implicitly infer that one cannot study parts of it objectively. The epistemological direction of interpretivism suggests that studying social sciences is the interpretation of human action whereas the contrasting view of positivism advocates collection of data to produce constant laws, test hypothesis and study things objectively. (Saunders et al. 2007, p.113, p.116).

Observing human behavior in business and management will likely occur as an interpretation of reality; namely interpretivism. However studying for example occurrences and statistical differences of phenomenon in business and management must be done systematically which is more positivism. Even if one would adopt the view that nothing is constant in social sciences and that it is always interpretations it is still possible to make predictions and measure occurrences through pre-set hypotheses, objectively using the positivist epistemology.
However we do recognize that even if one can successfully measure occurrences and set up hypotheses it is still not possible without interpretivism as the social world inevitably lacks constant laws implying that interpretivism will always be present. Given this study’s emphasis on studying the likelihood of a particular outcome as compared to another, it is not unreasonable to suggest that it rhymes with the epistemology of positivism. However as this study also aims at enriching the quantifiable results with interpretivistic methods due to the non-constant reality of the social world this study also equally importantly consist of interpretivism even if not in equal amount. This study is thus a combined version which requires both positivistic approaches and interpretivistic ones in order to maximize the knowledge output where the positivist approach is the main emphasize and the interpretivist supporting the knowledge creation.

Even if we interpret human action by observing opinions, knowledge is created by quantifying it objectively. Therefore this study adopts the positivist epistemology of knowledge creation combined with interpretivism. As for ontological considerations of how reality is perceived, if it exists externally to social actors and thus objectively, or being continually accomplished by social actors there is yet again no definite answer. A similar analogy is “how can we know the dancer from the dance?” (Yeats, 1956 cited in Gartner, 1988, p.47), if people are continuously accomplishing the social world what happens if we take them away. Would there still be an objective society with laws and order and organizations with routines just no people, or can it not exist without people constantly accomplishing it.

The constructivist view asserts that people are needed to continuously live the social world whereas the contrasting view of objectivism stresses an objective reality (Bryman, 2008, p. 18-19). Since this study assumes both the positivist and interpretivist epistemology being equally important, however in a certain order where the main emphasis is on quantitative methods and supported by a qualitative method, it is natural to assume the objectivist ontology where the world is viewed objectively and externally. The reason is that we are objectively researching the impact of education on enterprising tendencies. The people representing the data are only means to provide information on this. The question somewhat exist outside of the people. However it is essential to point out that combining interpretivism and positivism as is done in a quantitative and qualitative research is very beneficial in social research and conducted on good grounds as it support each other in the sense that the qualitative data goes into depth to create more knowledge around the phenomenon generated by the quantitative data (Nummela & Peltomäki, 2006, p. 12).

2.3 Research strategy

Given the argumentation in the previous section concerning epistemology and ontology this study adopts a quantitative and qualitative research strategy. The reason is due to the relative and non-constant social world where quantifying data without a qualitative understanding is sub-optimal. Also a combinatory strategy where one method is a support strategy, as in this study where the qualitative component aims at creating knowledge regarding the results generated by the quantitative data, is proven to be positive for knowledge creation (Nummela & Peltomäki, 2006, p. 12). Furthermore combining quantitative and qualitative research is a good strategy as one can utilize the
favorable properties of both strategies and apply to one study and thus create more knowledge as one should take any opportunity to create as much knowledge as possible (Long & White, 2000, p. 195). There are mainly three techniques to combine a quantitative and qualitative research strategy and one is called facilitation. Facilitation is when one of the strategies is used as backup or support to improve or clarify the other (Bryman, 2008, p. 607). This is the case in this study where the main focus is on quantitative strategy and testing hypotheses but a qualitative technique as a focus group helps to create deeper understanding for the results which is a way of supporting the quantitative strategy.

A quantitative approach entails a deductive process where theory and knowledge is tested systematically (Saunders et al. 2007, pp. 125-126). This study is consistent with such a strategy as existing theory is processed systematically to produce a hypothesis which either will be refuted or accepted. It is a way of testing existing theory to see if it holds or needs to be revised and further built; it follows a systematic view of knowledge production. However as the social world cannot entirely be quantified and systematically interpreted a good way is to supplement it with a qualitative element. A qualitative research approach aims at going deeper and creates an understanding where numbers are not sufficient.

By using both qualitative and quantitative techniques such as a questionnaire and a focus group and thus making the research somewhat more subjective and inductive than a pure quantitative study would, bias is increased (Bryman & Bell, 2007, p.30). However being human-beings, everything we chose to do will reflect subjective behavior and not fully objective reasoning. Examples of this in our research strategy is things such as the formulation of the research question, choice of research area, analysis of the data and conclusions (Bryman & Bell 2007, p.30). One can try to research completely objectively but one cannot succeed entirely.

However, it is also important to acknowledge that the goal of the research is to test hypotheses based on existing knowledge and theory, but in order to create more thorough understanding about the phenomena a qualitative technique is also required. The point is that within social sciences one might have to employ inductive and qualitative reasoning in order to create understanding around the quantitative findings one obtains.

### 2.4 Research design

Due to the nature of our combined quantitative and qualitative study we have chosen an exploratory study which incorporates a cross-sectional survey research combined with a focus group research. The cross-sectional design entails collecting questionnaires at a single point in time which then provides a body of data that is quantifiable in order to detect relationships between variables (Bryman, 2008, p. 44). In order to create more understanding around the quantitative data it is supplemented with an exploratory element which aims at enriching the quantitative results and put them in a deeper context by exploring the roots of the phenomena (Saunders et al., 2007, p. 140).
The reason for this choice except the fact that it is consistent with our research strategy is that it fits with the enterprising test that we aim to employ which is in a similar format as a questionnaire and fits the focus group which will enrich the results in a qualitative way.

What however needs to be mentioned about using the cross-sectional design is that if significant mean differences are discovered, we cannot infer a causal relationship as the study lacks the features of an experimental design; we can merely infer that the variables are correlated (Bryman, 2008, p. 46). This implies that the study cannot draw causal inferences from the quantitative empirical results but only potentially infer that there is a relation between business education and enterprising tendencies; we can reject the null hypotheses. In other words any given result cannot be generalized to mean that one of the test groups will be more likely to start a business but it can infer that one of the test groups have stronger tendency to do so.

2.5 Theoretical contribution

Departing from theories explaining entrepreneurial characteristics and tendencies we aim to test enterprising tendencies in order to proceed with examining how education fits in to the equation. If business students equipped with business administrative skills are more likely to show higher levels of enterprising tendencies.

This is accomplished by a partly quantitative strategy using hypotheses to test existing theory and a qualitative strategy which aims at creating understanding around the results and thus enriching them. Existing theory on the matter suggests that there is a link between business education and enterprising tendencies which is a claim that we aim to test. In this way we hope to contribute to theory, by either inferring significant differences or not, relating to the theory that business students ought to show higher levels in enterprising tendencies than non-business students. This is done by testing all five entrepreneurial characteristics as compared to only one or two tested in previous studies. The quantitative contribution will then be the basis for the qualitative component, the focus group.

The focus group which supplements the GET test provides a way of creating more knowledge around the phenomenon explored in terms of deeper understanding of the GET test results. It contributes to theory on education and its relation to enterprising tendency by creating additional knowledge and more flesh to the bone related to how business and non-business students differ in terms of entrepreneurial characteristics.

Furthermore using the GET test we hope to discover the relevant factors that are the foundation for the results we obtain. This means that we also contribute to theory by analyzing the differences in test scores between the two groups; for example where the largest differences in enterprising tendencies occur in terms of characteristics. In short we hypothesize and test what existing theory suggests, meaning that we contribute to the field by systematically adding incrementally analyzed knowledge.
2.6 Method for literature review

The review which set the theoretical foundation for this study was based on the background and theory of the GET test, theory related to entrepreneurship, enterprising, entrepreneurial characteristics and also education. One method used to obtain the desired information was through the Umeå University library online resources and the access there to different journals and databases.

Some keywords that were used to conduct the review were; entrepreneurship, business education, entrepreneurial education, GET, Durham university general enterprising tendency test, entrepreneurial characteristics, enterprising characteristics, need for achievement, need for autonomy, drive /determination, risk taking, creative tendency. Another method for finding relevant literature was to systematically back reference relevant literature to find original sources.
3. Literature review

This literature review is bringing up the important elements of the field that will lead to hypotheses in accordance with our research question. What an entrepreneur is will be defined and then the importance of entrepreneurship for society will be explained. Then business education and its relation to enterprising tendencies will be discussed; what is meant by business education, previous research and how it fits to this study will be outlined. Then entrepreneurial characteristics will be defined and argued for and will be linked with the General Enterprising Tendency Test (GET).

3.1 Introduction

First what will be explained in the literature review is the definition of an entrepreneur in order for the reader to better grasp the context in which this thesis is being conducted. In figure 1 (p.12) there is a summary that visually displays the focus of this literature review. Many definitions of an entrepreneur exist. Schumpeter defined it as doing what is not usually done in everyday business to create a new venture (1934, p.254) and Mescon & Muntari (1981, p.413) simply stated that entrepreneurs are by definition founders of new businesses whereas Hull et al. stated that an entrepreneur is “a person, who organizes, operates and assumes the risk for a business venture” (1980, p.1). Some definitions of an entrepreneur are very wide such as Mescon’s and Muntari’s (1981, p.413) but we have chosen to use a bit more narrow definition for our thesis such as Hull’s which we find to be very relevant. However it should be pointed out that in this study we do share the view that an owner and starter of an enterprise is seen as an entrepreneur in line with Mescon & Muntari (1981, p.413)

It is also necessary to explain and map out the importance of entrepreneurship for society in this literature review. Making the reader understand the important role that entrepreneurship plays will also shed light on the relevance this study carries. One who realized the necessity of entrepreneurship was Baumol who stated that entrepreneurship contributes greatly to economic growth in a society (1968, p. 65). Thirdly what will be examined in the literature review is business education and its relation to enterprising tendencies vis-à-vis entrepreneurial characteristics. It will also be clarified that we by a business education mean students that have finished an undergraduate level where one learns how to found, operate and manage an enterprise (Umeå University, 2012).

Gnyawall & Fogel states that business skills affects the success of a new business (1994, p.55). First and foremost prior research will be mapped out to see what the findings are concerning the importance of a business education in relation to starting a new business and how and if it affects enterprising tendencies. Heinonen for example states that that many universities have succeeded in teaching entrepreneurship and in promoting enterprising in the sense that they have managed to equip students with the necessary practical and analytical skills (Heinonen, 2007, p.312).
Most of the research argues and finds that a business education is important to have if one wants to start a business which will be explained further in this literature review. What this study will contribute with is to establish if there is a link between business education and all of the five entrepreneurial characteristics measured to see enterprising tendencies which have not been done before. It has been stated that having knowledge about business is important when starting a business but this has not previously been supported by measuring entrepreneurial characteristics which this study sets out to do. The biggest part of this literature review concern entrepreneurial characteristics, specifically focusing on five prominent characteristics that are needed in an entrepreneur to start a business. It will be these characteristics this study will focus on in accordance with prior literature.

The five characteristics are need for achievement, need for autonomy, creative tendency, risk taking, and drive and determination. By mapping out previous research it will be argued why these characteristics are the most prominent ones in an entrepreneur and most relevant both in general and for this study. Also it will be argued that these characteristics are needed in an entrepreneur in order to start a business.

One widely used test to measure these characteristics in order to test enterprising tendencies in individuals which will be used in this study is the GET test that was developed by Caird (1991, p.177). The test will be explained in accordance with the mapping out of the five characteristics that is tested in the GET; theories and previous research behind the characteristics that will say. In this way the theoretical background for the GET is explained.
Figure 1

*Literature review leading down to hypotheses*
3.2 Definitions of an Entrepreneur

Cole defined entrepreneurship and an entrepreneur as an individual deliberately creating and maintaining a business for profit (1959, p.7) and Brockhaus defined an entrepreneur as an owner of a business not employed anywhere else (1980, p.510). In similar fashion many more researchers have found that an entrepreneur is a founder and owner of an enterprise. Mescon and Muntari (1981, p.413) stated that an entrepreneur is a founder of new businesses as well as Draheim who stated that entrepreneurship is about founding a new enterprise where it did not exist any before (1972, p.1), as did Hornaday & Bunker (1970, p.50), Howell (1972, p.1) and Read & Sarasvathy similarly states that entrepreneurship is creating new businesses, new products and markets (2005, p.9). In line with this, in this study the entrepreneur is seen as an individual that start an enterprise.

There are many more researchers that would agree that an entrepreneur is an individual starting a new business but goes somewhat further, narrows it down and gives it a richer definition which is also beneficial to do for this study. Hull et al. stated that an entrepreneur is “a person, who organizes, operates and assumes the risk for a business venture” (1980, p. 1). This definition of an entrepreneur explains in more detail what it means to start a business and to be an entrepreneur (founding a business means that the founder has to organize, operate and assume risk).

Carland et al. states that entrepreneurial venture and entrepreneurial activity is engaging in actions for profitability and growth and is characterized by innovative and creative practices (1984, p.358). McClelland defines an entrepreneur as an individual who organizes a business and increases its productive capacity driven by need for achievement (1961, p.65). Kirzner (2009, p.150) said that an entrepreneur is someone who continuously and purposefully search for opportunities to create and establish an enterprise, just as Drucker stated that entrepreneurship is the effort to purposefully create and then change an enterprise’s economic and social potential (1985, p.67). When defining an entrepreneur much of the literature include what activities an entrepreneur needs to undertake and what is required when starting a business which becomes a part of the definitions of an entrepreneur which this study is in line with.

Definitions of what an entrepreneur is are many but it is beneficial and necessary for this study to narrow it down and conclude how it is defined. The definition of an entrepreneur, in this study will according to the literature hence be defined as someone starting a new business. In order to do so the entrepreneur needs to organize, assume risk, engage in innovative and creative practices, drive to increase productive capacity and profit potential and to continually and purposefully search for innovation and new and better ways of doing business.

This definition goes hand in hand with the entrepreneurial characteristics need for achievement, need for autonomy, creative tendency, risk taking, and drive and determination which will be further outlined later in the literature review. McClelland writes about need for achievement in entrepreneurial activities when increasing productive capacity (1961, p.65), Drucker (1985) and Kirzner’s (2009) definitions of an entrepreneur especially has to do with drive and determination (to purposely search for innovation and opportunities), Carland et al. (1984) focus much on being innovative and
creative in the process of starting and running an enterprise in the spirit of Schumpeter (1934) which greatly empathizes creativity in starting a new enterprise.

Schumpeter (1934, p.254) as well talks about an entrepreneur being the one taking on risk which can be taken even as far as Mill (1848, cited in Shaver & Scott, 1991, p.23). It is these five entrepreneurial characteristics that are tested in the GET test that will, as mentioned, be used for this study. A disclaimer has to be made in order to avoid potential confusion. Given the definition about the entrepreneur that this study employs it has to be emphasized that it not be confused with corporate entrepreneurship. In no way does this study refer to corporate entrepreneurship but rather individual entrepreneurship.

3.3 Importance of Entrepreneurship

Baumol stated that entrepreneurship is a vital component in the process of economic growth for a society and that empirical evidence of several studies have confirmed this view (1968, p.65). This was in 1968 and in today’s globalized world where more opportunities to enterprise exists this is even more true and in accordance with this, Henry et al. says that the importance of entrepreneurship is now greater than ever as well as the opportunities to start an enterprise (2005, p.98). Kirzner as well states that entrepreneurship is hugely important in economic growth (2009, p.147).

A quote that is in line with this and is very telling of the importance of entrepreneurship is this: “Entrepreneurship is increasingly recognised as an important driver of economic growth, productivity, innovation and employment, and it is widely accepted as a key aspect of economic dynamism: the birth and death of firms and their growth and downsizing” (OECD, 2008). Moreover it’s stated that scholars have long recognized the importance of entrepreneurship but it is only in recent times that policy makers have realized this and governments more and more see entrepreneurship as a vital part of the economy and have taken action to enhance it (OECD, 2008).

When examining if a business education enhance enterprising tendencies it is on these grounds that it is argued for why it is important; why it is necessary to see if individuals with a business education is more likely to show higher enterprising tendencies. As government and policy makers want to enhance entrepreneurial activity (starting an enterprise) it is beneficial to have a better understanding of the effectiveness of a business education in doing so; to see if it increases the tendency of individuals engaging in starting a new enterprise.

One of the main challenges for EU is to enhance entrepreneurship in the member states (Eurobarometer, 2010, p.3). Moreover the European Commission in 2003 asked these two questions for a public debate: ”Why do so few Europeans set up their own business? Why are so few European businesses growing?” (Eurobarometer, 2010, p.3). From this it is evident that not only does governments and policy makers, even EU policy makers, consider entrepreneurship important but also consider the current entrepreneurial activity level as being too low in EU. This implies that studying how to enhance and increase individuals starting a new enterprise is necessary.
3.4 Entrepreneurial Characteristics

The most prominent characteristics in entrepreneurs according to previous literature are need for achievement, need for autonomy, creative tendency, risk taking, and drive and determination (McClelland, 1963; Schein, 1994; Drucker, 1985; Caird, 1991; Shaver & Scott, 1991). These characteristics will be argued for as what is needed in an entrepreneur in order to start a business.

This goes hand in hand with the definition of an entrepreneur as an individual starting an enterprise and in order to do so needs to organize, assume risk, engage in innovative and creative practices, drive to increase productive capacity and profit potential and to continually and purposefully search for innovation and new and better ways of doing business (McClelland, 1961; Drucker, 1985; Kirzner, 2009; Carland, 1984; Schumpeter, 1934; Mill, 1884). Definitions of entrepreneur’s characteristics are many and versatile (Carland et al. 1988, p. 33) but it is beneficial to look at the bigger more general picture and in doing so find the most prominent and most important characteristics that entrepreneurs inhibit.

More than explaining definitions of an entrepreneur which goes hand in hand with these characteristics they will now be explained one by one by looking in to previous literature and in doing so argue for why they are the most prominent and also most relevant ones to use for this study. Below (table 1, p. 18) is an exhaustive table of all scholars used in this study to map out the most prominent entrepreneurial characteristics and consequently the theoretical lenses in a chronological order.
Table 1

Exhaustive table of references in mapping out characteristics and this study’s theoretical lenses in chronological order

3.5 High Need for Achievement

Need for achievement has much to do with the high motivation that entrepreneurs feel towards achieving and accomplish difficult goals and tasks in accordance to the entrepreneurs’ highly set standards (McClelland, 1963). To start an enterprise and be successful is no ordinary task and an entrepreneur must be very motivated to accomplish that and have highly set standard for oneself in doing so. McClelland found that high need for achievement was an important part in the individual when starting an enterprise. In his longitudinal study he found that those who were now entrepreneurs 83% of those had when they went to college 14 years ago scored high on need for achievement versus only 21% had scored high of the non-entrepreneurs (McClelland, 1963, p.390). In defining characteristics for individuals starting an enterprise many have found that high need for achievement is an important and prominent component for that
individual to have (Hornaday & Aboud, 1971, p.143; Smith, 1973; Mehrabian, 1994/95). Caird defines an individual with a high need for achievement as someone striving to accomplish difficult tasks and goals supported by that individual's high personal standards of perfection (1991, p.180) and this is how it is used in the GET test. Someone who scores high on need for achievement is someone that is self-sufficient, result and task oriented, self-confident and optimistic (Burns, 2003).

In order to start an enterprise an entrepreneur needs to have highly set standards for oneself in order to accomplish such a difficult task and also for the enterprise to survive and grow. By having high set standards for oneself motivation will be higher as a consequence which is very important if one wants to accomplish something difficult, in this case founding an enterprise. Wiklund & Delmar states that motivation has a big influence on business growth in sales and number of employees (2008, p.437). In summary an important factor that entrepreneurs have and need is motivation stemming from the high need for achievement, to accomplish oneself, which hugely affect the start and success of an enterprise (Berthold and Neumann, 2008, p.238).

One statement on the GET test measuring need for achievement is “I like challenges that really stretch my abilities rather than things I can do easily” where you get one point in need for achievement for agreeing with the statement. This means that you are not satisfied with completing an easy task, you rather take on a challenge, you are self-confident that you can accomplish it and believe that stretching your abilities is more rewarding. Another statement is “If I am having problems with a task I leave it and move on to something else” where you get one point in need for achievement for disagreeing with the statement. This suggests that you are task-oriented, you will not give up until you have completed a task and you are optimistic that you are able to do so (Burns, 2003)

3.6 Need for Autonomy

Need for autonomy is defined as having the need to do what one like even though it is not according to the expected norm (Caird, 1991, p.181), to not let anyone tell you what to do, to be independent. Those who score high on need for autonomy likes to do unconventional things, likes to work alone, dislikes taking orders, does not give in to group pressure, needs to do it one’s own way and is stubborn (Burns, 2003). According to Schein (1994, p.88) the need for autonomy is one of the most important factors when starting a business. When faced with the decision to work for an already existing company and work according to their routines and norms an individual with high need for autonomy will feel that it is necessary to break free and work for oneself.

A person with need for autonomy will not feel that an already existing company satisfies that need and instead want to work according to one’s own belief and to be free and independent from already existing companies. One good example of this is when Steve Wozniak worked for Hewlett Packard and left when they would not listen to his ideas and then started Apple with Steve Jobs (Apple Inc, 2012).
Prottas found that those that were self-employed had a much higher need for autonomy than did those employed at a company (2011, p.419). Caird says that having a high need for autonomy indicates that you are independent, are stubborn, unconventional and have a need to do things in one’s own independent way and this is what is tested in the GET (1991, p.181). Several researchers have found need for autonomy as an important factor influencing the entrepreneur in starting a new enterprise. Hornaday & Aboud (1971, p.143) highlighted autonomy as a characteristic evident in most entrepreneurs.

A statement on the test concerning need for autonomy is “I do what is expected of me and follow instructions” where you get one point in need for autonomy for disagreeing. This indicates that you find it hard to just follow instruction and would rather have a say in a matter; you dislike taking orders and like to do things in your own way (Burns, 2003).

### 3.7 Creative Tendency

Schumpeter (1934) one of the most significant authors in the field of entrepreneurship greatly emphasized creativity and innovation in mapping out characteristics of an entrepreneur and in starting a new enterprise. In this fashion Carland et al. states that starting a new enterprise is characterized by innovative practices (1984, p.358). Caird states that those scoring high on creative tendency is individuals having the tendency to be imaginative, innovative, curious and versatile and this is what is tested in the GET (1991, p.179).

Drucker (1985, p.67) as well emphasizes innovation in entrepreneurship and explains it as a tool for entrepreneurs to use when starting an enterprise. Bessant & Tidd (2011, p.156) stresses the importance of innovation in starting an enterprise especially when it comes to identifying opportunities and further states that for individuals starting an enterprise the role of creativity in this matter is greatly important. They define creativity as “making and communication of meaningful new connections to help us think of many possibilities; to help us think and experience in varied ways and using different points of view” (Bessant & Tidd, 2011, p.156). In founding a new enterprise one has to see opportunities were others do not and to do so one has to be creative, to see change as an opportunity for a different business (Drucker, 1985, p.67), and to think of many possibilities (Bessant & Tidd, 2011, p.156); namely to be creative, to have creative tendencies (to be imaginative, innovative, curious and versatile (Caird, 1991, p.179)).

One statement measuring creative tendency on the GET test is “sometimes I have so many ideas I do not know which one to pick” where you get one point in creative tendency for agreeing. This indicates that you often think out new ideas and new ways of doing things which leads to you having so many ideas that you find it difficult to choose. Another statement is “sometimes people find my ideas unusual” where one point in creative tendency is rewarded for agreeing with the statement which indicates that your ideas are unlike someone else’s ideas, they are more imaginative and innovative, you are curious of new ways of doing things (Burns, 2003).
3.8 Drive and Determination

Drive and determination comes from the concept of internal locus of control where Caird (1991) states that having a high internal locus of control indicates that you have self-determination, self-confidence, and believe that achievement stems from ability and effort (1991, p.181). Those who score high on drive and determination is discounting fate, believes in making one’s own luck and show considerable determination (Burns, 2003). It is important to have an internal locus of control when starting an enterprise, meaning that you have to be determinant, have the drive and to strive to achieve that by order of one’s own efforts and hard work.

The concept of internal locus of control was coined by Rotter (1966) and research strongly links this with high need for achievement and need for autonomy and is considered an important aspect in founding an enterprise. It will be difficult to start an enterprise if one believes that it is mostly external factors and luck that affects the success; if one have an external locus of control. Moreover if one have an external locus of control, need for achievement will not be as high because one do not believe that it is controllable and wanting independency will be less likely (Timmons, 1987; Joe, 1971).

A statement testing an individual’s drive and determination is “you are either naturally good at something or you are not, effort makes no difference” where disagreeing gives you one point in drive and determination. This shows that you believe that you by hard work and practice can become good at something and does not consider natural talent as a factor. Another statement is as follows: “being successful is the result of working hard, luck has nothing to do with it” where a point is received for agreeing with the statement. This highlights your determination; that you believe hard work is rewarding and that you make your own luck (Burns, 2003)

3.9 Risk-taking

Risk taking was probably the earliest defined characteristic in an entrepreneur and dates back as far as Cantillon (circa 1700, cited in Carland et al. 1983, p.355) and Mill (1848, cited in Shaver & Scott, 1991, p.23). Already then it was stated that when starting an enterprise one has to assume risk. Caird speaks about calculated risk-taking and defines an individual with high risk-taking as someone being able to make decision in uncertain circumstances, someone who makes decisions without exhaustively searching for information (1991, p.179). Moreover, a risk-taker is defined as someone that is decisive, able to act on incomplete information and good at judging when incomplete information is sufficient for action, is self-aware with one’s own capabilities, is good at understanding likely benefits compared to the likely costs of actions; sets goals that are challenging but attainable and can grasp the probability that certain actions will be successful (Caird, 2012). Naturally when starting an enterprise one cannot be certain of a successful outcome and hence needs to make decisions in founding, operating and managing an enterprise without having all the information.
Most research would agree that when founding an enterprise one has to some extent assume risk. Researchers just have different views about what role risk-taking has but most would agree that taking on some risk is inevitable. McClelland states that an entrepreneur takes on risk but the risk is less because of the success depending on skills and sees it as not just taking on risk but as well a more difficult challenge (1963, p.390).

Shaver & Scott (1991) believes strongly that starting a new business involves risk and states that “considering a behavior with a long history in the analysis of new venture creation—the assumption of risk”. Whether one reads Mill or asks one’s local venture capitalist, one leans that the founding of a new business organization involves significant risk.” They furthermore conclude that when looking at starting a business on an individual level everyone can agree that there is significant amount of risk involved in doing so and that entrepreneurs are more willing to take on risk than are non-entrepreneurs (p.24) It could from this be stated that, if an individual is not ready to face any risks, he is probably not fit to found and operate an enterprise. Therefore it is necessary to test an individual’s willingness to take on risk when measuring enterprising tendencies which is what is done in the GET.

One statement in the test measuring risk-taking is “if I had a good idea for making some money, I would be willing to borrow some money to enable me to do it” and in agreeing with this you are given one point in risk-taking. This indicates that you are able to grasp if you have a good idea and more so would be willing to act on that even though you cannot be sure of success; knowing that you have a good idea would be enough information for you to act on it and borrow money to enable it (Burns 2003).

3.10 A Business Education in Relation to Starting a New Enterprise

Rae stated that the sources of entrepreneurial learning was from practical learning, theoretical learning and by learning from others in a social context (Rae, 1999, p.184). Cresswell furthermore found that self-directed experienced learning is the best way an education can help promote and stimulate enterprising (Cresswell, 1999). Edwards and Muir states that “higher education establishments need to be entrepreneurial themselves in order to provide properly funded chairs of entrepreneurship, research centres and to be able to exploit the latest technology enabling efficient and effective research and teaching delivery” (Edwards & Muir, 2005, p.616). Heinonen states that many universities have succeeded in teaching entrepreneurship and in promoting enterprising in the sense that they have managed to equip students with the necessary practical and analytical skills. However the focus on analytical and practical skills might have negative effect on student’s imagination and creativity (Heinonen, 2007, p.312).

When studying business one becomes equipped with tools that are needed for founding, operating and managing a business, ranging from marketing a product to turning ideas to commercially viable ones (Umeå University, 2012). In starting a business one becomes, by definition, an entrepreneur. From this it should be clarified that what we want to study is business students finished with their undergraduate level (which equip you with necessary tools for founding a business).
Moreover Haase and Lautenschläger refers to entrepreneurial education being the same as enterprise education (2010, p.147) which Gibb also states (1993, p.14), namely to found, operate and manage a business which one learns finishing an undergraduate level in business in line with this study’s definition of a business education. Gnyawall & Fogel states that business skills affects the success of a new business (1994, p.55).

According to Ucbasaran et al. one needs knowledge on how to start a business in order to do so (2003, p.208). However when referred to the type of knowledge required for starting an enterprise, the purpose is not to go into detail about business specific areas such as financing or marketing but rather to use the broad definition given above, namely general principles in founding, operating and managing a business. The reason is that this study does not examine how particular business skills affect enterprising but rather a business education in general.

Most people are not born to be entrepreneurs, but become so by acquiring knowledge through hard work and experience (Garvan & O’Cinneide, 1994, p. 3). Hard work and experience can mean a number of things including a business education but what should be emphasized here is that one needs to acquire knowledge to become an entrepreneur.

Morrison et al. states that educational level and knowledge of different fields of business is important pro-growth factors for a business owner/founder to have (2003, p.419) which also Glancey points out (1998, p.19). Sánchez (2010, p.249) found that through business education scores on self-efficacy and risk-taking becomes much higher and hence indicates that starting a business is more likely for business students than for non-business students.

From the literature it has been found that acquiring a business education one has an advantage in starting an enterprise compared to non-business students. Having knowledge in the field of business is a pro-growth factor and having skills in business affects the success of a new business. This supports our argument that business students are more likely to start an enterprise than non-business students and this is what Sánchez (2010) similarly found.

The literature says that having knowledge in the field of business is important but there are examples of individuals starting a successful business without higher education in business such as college drop-outs Steve Jobs and Michael Dell (Audia & Rider, 2005, p.24) which shows that this study’s tests is both beneficial and relevant. Moreover, studies testing this to our knowledge have not tested all five prominent characteristics such as Sánchez who only tested autonomy and risk-taking.
Politis (2008) argue that a strictly entrepreneurial education will not have a direct impact on individuals successfully starting an enterprise and instead that focus should be on business education in order to enhance entrepreneurship (Politis, 2008, p.65). Timmons et al. argues that a strictly entrepreneurial education will fail to enhance enough practical skills that is needed when starting an enterprise (1987, p.45) which is provided in a business education. Dutta et al., in line with this finds that, “specialization of entrepreneurship education is not enough for wealth creation from future entrepreneurial activities” (2010, p.163).

3.11 Theoretical framework and hypotheses

The definition of an entrepreneur, in this study is according to the literature defined as someone founding, operating and managing an enterprise. In order to do so the entrepreneur needs to organize, assume risk, engage in innovative and creative practices, drive to increase productive capacity and profit potential and to continually and purposefully search for innovation and new and better ways of doing business (McClelland, 1961; Drucker, 1985; Kirzner, 2009; Carland, 1984; Schumpeter, 1934; Mill, 1884). This goes hand in hand with the most prominent and important characteristics needed in an entrepreneur according to the literature; namely need for achievement, need for autonomy, creative tendency, risk taking, and drive and determination. This is what is being measured in the GET test (Caird, 1991).

Practical entrepreneurial education is seen as the same as enterprise education (Haase & Lautenschläger, 2010, p.147); namely to found, operate and manage a business, which one learns finishing an undergraduate level in business (Umeå University, 2012). Having business skills will affect the success and likelihood of starting an enterprise (Gnyawall & Fogel, 1994). In other words having knowledge of how to found, operate and manage an enterprise is important to have and will affect the success of a new business (Morrison et al. 2003, p.419); (Glancey, 1998, p.19). In figure 2 (p.26) is a theoretical framework depicting the research fields which are touched upon in this study and how they are synthesized in order to create new knowledge. It is however important to point out that this study does not measure start-up frequencies but rather a theoretical tendency according to existing theories. The hypotheses of the study are stated as follows.
Hypotheses

- **H1:** Business students will score higher on the GET test on aggregate than non-business students.

- **H1: 1:** Business students will score higher on need for achievement than non-business students.

- **H1: 2:** Business students will score higher on need for autonomy than non-business students.

- **H1: 3:** Business students will score higher on creative tendency than non-business students.

- **H1: 4:** Business students will score higher on risk-taking than non-business students.

- **H1: 5:** Business students will score higher on drive and determination than non-business students.
Figure 2

Theoretical framework

*(Notice that enterprising tendency does not refer to any type of start-up rate but rather a theoretical tendency towards doing so).*
4. Practical methodology

This chapter argues for the practical methodological choices this study applies and presents how the study is conducted practically. This section furthermore explains how research important concepts such as validity and reliability are regarded and how the empirical results will be analyzed. The chapter begins with describing how data has been collected and the implications of that and continues by setting up a foundation for how the analysis is performed and ends with an ethics and limitations section emphasizing the researchers role and responsibilities toward society and all involved.

4.1 Data collection methods

For the quantitative part of this study a questionnaire survey is the most appropriate (Saunders et al. 2009, p. 362) Some of the benefits of this technique is that it allows for less open questions resulting in ambiguity, that it is easy to follow and complete for the respondent, require less time than an interview, quantitatively more data to analyze and is easy to administer (Bryman & Bell, 2007, p. 241-242). By the same logic there are disadvantages with using a questionnaire as a means for data collection and these involve, low response rates, inability to probe for elaboration, cannot ask a lot of questions, don’t know if respondents are serious and validity concerns (Bryman & Bell, 2007, p. 242-243). The latter are the reasons why this study also uses a focus group aiming at creating understanding around the quantitative data and hence put the results in a position to contrast them and create more knowledge. The focus group in its exploratory nature is a good way of creating more understanding of the phenomena one study’s (Saunders et al., 2009, p.140). Namely how the enterprising tendencies and educational background affect each other.

Validity concerns deal with whether or not the questionnaire actually measures what it is set out to measure (Saunders et al. 2009, p. 372). When constructing a questionnaire one has to put in much effort in assuring the validity of it (Bryman & Bell, 2007, p.164). This study uses an existing test measuring enterprising tendencies in the form of a questionnaire that has been validated by several studies, meaning that validity and other concerns such as reliability have already been examined. The Durham University general enterprising tendencies test “is a valid and reliable instrument for assessing enterprising tendencies” (Cromie & Callghan, 1997, p. 65). Moreover, Stormer et al. claims that the general enterprising test is reliable for research purposes (Stormer et al. 1999, p. 51). Furthermore as the focus group questions of this study are modified from the GET test to be more consistent with a qualitative data collection method they carry validity in that they are derived from the GET (Nummela & Peltomäki, 2006, p. 11). Although the pre-made GET test asserts validity and reliability in its structure and formation it doesn’t guarantee that the testing will be successful, a proper sample has to be regarded as well. After to some degree establishing that the questionnaire is valid the next critical step is the sample to be tested.
4.2 Respondents and sample representativeness

The aim of this study includes sampling students; this is however not without controversy as using students as samples might be troublesome. One obvious fallback of having students especially in business research is that not many of the students have the experience of managers or real work life experience at all which renders their answers incredible from the perspective of generalization (Bello et al. 2009, p. 361).

Other drawbacks of students as samples are, generalization issues, undeveloped self-identity leading to frequent change of attitude, peer pressure and group norms, being easily influenced leading to inconsistent behavior (Sears, 1986, p. 522-524). However the key concern is generalization problems in that it might be unreasonable to assume that for example a student answer would be legitimate to generalize to an older manager (Henry, 2008, p. 50).

Quite logically the higher education the more reliable answers and the limit roughly go at undergraduate samples meaning that undergraduate samples are usually discouraged (Bello et al. 2009, p. 361). There are however situations when student samples are acceptable and such a situation is for example when broad cultural differences are examined, another is obviously when a study is aimed at specifically researching students such as this one (Bello et al. 2009, p. 363). Relying on the axiom that the best sample is taken from the population one wants to study, this thesis consequently use students and does so in accordance with the conditions set by prominent scholars for using students as samples (Bello et al. 2009; Sears, 1986; Henry, 2008).

As for the criteria this study use concerning the specifications of what students that are to be sampled it can be repeated that in accordance with (Bello et al. 2009, p. 361), no undergraduate students are sampled due to the lack of reliability. For this study this means that master students are the subject of testing. Qualifying as a master student means having completed an undergraduate degree, however not necessarily at Umeå University. Two groups of master students are compared by using the GET test, master students in any of the USBE master programs and all other social science master programs at Umeå University regardless of discipline. The respondent emphasis is not on which master program they study or how far along they are but the fact that they have qualified for being master students in either business or non-business.

A requirement for being accepted to any of the master programs at Umeå School of Business and Economics is a minimum of 90 ECTS in business administration as a part of a 180 ECTS undergraduate degree (Umeå University, 2012). Students at this level have acquired foundational knowledge of how a business is founded, operated and managed (Umeå university, 2012). The common formal requirement for any other master program at Umeå University is also that students have completed a 180 ECTS undergraduate degree including a minimum of 60-90 ECTS of studies in the same discipline (Umeå University, 2012).

These formal requirements for attending master courses will be adopted for this study’s criterion for test groups. Namely a 180 ECTS undergraduate degree containing specialization in one subject of minimum 60-90 ECTS for non-business master students and minimum 90 ECTS in business administration studies for master of business
students. Regardless of the topic of study, all students that are tested have performed the same minimum amount of schooling before the master program in terms of ECTS credits with the only difference being their subjects of study.

As for previous entrepreneurship studies and experience, it is evident that both test groups can have taken an entrepreneurship course or have had a business. Any entrepreneurial experience regardless of it being academic or practical is not of negative effect in the sense of the test. If any of the respondents have had a business or taken a course in entrepreneurship it will only result in a potentially higher score for that test group.

Recognizing that there are few natural gatherings in which to find respondents except for course classes, email and contacting students around campus, the only practical solution was to resort to convenience sampling, because of the “virtue of its accessibility” (Bryman & Bell, 2007, p. 198). Convenience sampling is a type of a non-probability sample where samples are gathered by the criteria that it is convenient or the only plausible option as in this case (Bryman & Bell, 2007, p. 198). The opposite is probability sampling where the population is numbered and then randomly drawn or systematically drawn (Bryman & Bell, 2007, p. 185).

Despite the fact that course classes are sampled instead of random master students from a randomized list, it does not damage validity in a crucial way. The sampling technique applied is still valid since all respondents qualify for the main sampling criteria of having an undergraduate degree. The fact that some respondents attend the same master class is irrelevant as the master courses that will be sampled represent random master students with an education background that is valid to this study’s purpose of testing if business education is a stronger indicator than non-business education for enterprising tendencies.

The GET test respondents were collected by both course classes and students in and around campus. Due to the difficulty of getting a good response rate for questionnaires the total number of respondents was dictated by time constraints and did thus not reach the goal of 100 respondents per group. Furthermore the collection of data somewhat violated the rule of being collected at one point in time as collecting a sufficient amount of data took time, approximately three to four weeks. One major reason for this difficulty encountered in collecting responses were that many of the approached students did not qualify for the formal requirements of having completed an undergraduate degree which lead to many candidates being singled out resulting in time loss.

The majority of the business student sample was collected from different “civilekonom” classes in their final year as well as a random master class in research methodology consisting of business students from different master programs at USBE. The non-business students taking the GET test consisted of mainly students from other social sciences and humanities, for example, social science, tourism, teachers and cognitive science students. The data collection from these students took place on campus at day time. All students that were approached and asked to participate were told of the purpose and asked about their field of study and level so to assure that they fit the criteria of being a master student. As for the representativeness of the students not being business students, hence non-business students were sampled out of their educational
background. The criterion was that the non-business students studied other social sciences or humanities. The reason for this was to compare business students, which are part of the social sciences to other social sciences to detect differences in enterprising tendencies. Therefor it was crucial not to sample students from the natural sciences as that would make the comparison inconsistent. The decision to compare business students to other social science students and not natural sciences was to contribute to an area where little research has been done. Thus is the representativeness of the samples based on comparing different social science fields against each other where all respondents share the same minimum level of education which is coherent with the aim of this study.

This naturally leads to more technical questions regarding the sampling process, such as what is considered the population and how big the sample need to be. The purpose of this study is to compare two populations, business students and non-business students. Thus we have two populations where one is larger than the other namely the non-business student test group. As for the statistical requirements this does not pose as a problem. According to Bryman & Bell, 2007 it is not the relative size of a sample that is important but the absolute size (Bryman & Bell, 2007, p. 194.) This means that even though the population of non-business students is much larger than the business student population it is the size of the samples that count.

In other words, as the sample size increase the sampling error diminishes regardless of population size (Bryman & Bell, 2007, p. 195). The sample size this study aimed for was 100 per population but due to the difficulty of collecting quantitative data the study obtained 57 successful samples from non-business students and 63 from business students. For the focus group the aim was to have two business students and two non-business students which turned out successful. The reason for the number of participants stem from difficulties of moderating more people and gather quality data.

The focus group was formed so that the distribution between the two selection criteria were equal, meaning that there were two business students and two non-business students. The reason for having two students representing each sample group was due to time and resource constraints and quality concerns. According to Saunders (2009, p. 141) having more than four participants decreases the moderators control over the discussions and thus compromises the quality.

Due to the sensitive nature of the focus group and its topic the focus subjects wanted their identities to remain confidential. As some of the topics concerned the quality and structure of their educational programs we of course agreed to honor their wishes. However it can be revealed that the students from both groups were male and the two business students studied the international business program (IBP) and the two students representing the non-business students studied the master program of cognitive sciences.
The focus group was scheduled to take one hour around noon and treat the topics of the GET test and some general questions related to enterprising in connection to their educational background. The focus group session was constructed so that the four students sat around a table together with the authors of this study. One of the authors acted moderator and asked the questions and made sure that the session was kept under control so to secure the best possible quality of data as the focus group method requires the moderator to facilitate the discussions so that the participants stay on the subject and don’t lose focus which is the difference from a group interview method (Saunders et al. 2009, p. 147). The other author operated a recording machine so to provide an opportunity to analyze the data afterwards. As the focus group were held in English some linguistic mistakes occurred which was corrected when transcribing to the best of our knowledge.

4.3 The general enterprising tendency test (GET)

The method used to test the hypotheses in this study is the general enterprising tendency test. The GET test was developed at Durham university in 1988 (Caird, 2012). The test has received a lot of scholarly attention and is by some considered the best in its field (Caird, 2012) and this is the reason why this study uses it combined with the fact that no other test measures the five entrepreneurial characteristics in its entirety which we think is essential if wanting to map enterprising tendencies. The GET is a 54 question survey aiming to map enterprising tendencies in respondents by departing from five important entrepreneurial personality dimensions, drive and determination, risk taking, creativity, need for achievement and need for autonomy (Stormer et al. 1999, p. 47). As the literature review revealed, these dimensions are relevant entrepreneurial characteristics and a high portion of them in an individual indicates a higher enterprising tendency. As we hypothesize to find a higher level of these characteristics in business students compared to non-business students, the GET is a valid measurement to test this hypotheses in that the test is consistent with what this study considers being prominent entrepreneurial characteristics.

The test use statements with only two answering options, agree or disagree; the statements are based on the five enterprising tendencies and measure them against norms such as “sometimes I have so many ideas I don’t know which one to pick” which would correspond to creative tendency (Caird, 2012). The test can be used for a number of reasons such as measuring enterprising spirit in employees with business support functions, recruitment of new staff, employers’ wanting to foster enterprising spirit in companies and more importantly, measuring enterprising characteristics and compare between groups (Caird, 2012).

The latter is what this study will do and then analyze the difference in result between the two test groups. The five personality dimensions are represented with different statements corresponding to norms which after completion of the test will be analyzed by assigning scores. Each of the 54 statements corresponds to one of the five personal dimensions but they do not come in the right order but are scattered throughout the test to minimize pattern recognition (Caird, 2012). When the test is completed each statement is worth one point if it is coherent with the norm associated with one of the dimensions. The points are then counted to see how high the test object ranks in
accordance to the dimensions. The higher the test score is the higher is the enterprising tendency, the scores can then be compared with other people or groups.

4.4 The focus group

The focus group consisted of four students. The selection criteria were based on the same criteria as those students that were eligible to take the GET test. Namely for business students having completed an 180 ECTS undergraduate degree in business and continuing on a master or master courses in whatever field and for non-business students to have completed a 180 ECTS undergraduate degree in any field and continuing on a master or master courses.

The purpose of the focus group was to deepen the understanding of the quantitative data through qualitative rich data which a focus group is eligible to do according to (Saunders et al. 2009, p. 347). In order to do so successfully the focus group was constructed to reflect the GET test questions in a qualitative manner and open up for reflections. A few selected questions from the GET test were slightly modified to better fit a focus group. As the GET test questions are formed only to be answered with an “agree” or “disagree” the focus group questions were constructed to open up for reflections and discussion among participants which is the preliminary objective of a focus group (Saunders et al. 2009, p. 347). In addition to these questions a few questions corresponding to enterprising and the participant’s educational background were constructed. The reason for this was to supplement the GET test’s focus on enterprising and solidify this study’s link between education and enterprising.

Conducting the focus group the four participants with two students representing each test group were situated around a table instructed to think about the questions before answering but not overanalyze as their thoughts should be aired in a spontaneous manner. The participants were also informed that everybody would have the opportunity to answer all questions and that they could add something if they were inspired by someone else’s answering.

The questions in the focus group, like the GET questions, corresponded to each of the five entrepreneurial characteristics. For each one of the five entrepreneurial characteristics there is a question posed in the focus group. For example the characteristic drive and determination has a question that was combined from three questions in the GET test and became:

“If you were responsible for an important challenging project that you were highly passionate about but weren’t sure if you could successfully complete on time and someone came and offered you to finish it meaning that you were no longer held responsible for a potential failure, how would you reason?”

This question reflects the characteristic drive and determination and allows for reflection which enriches the agree/disagree approach in the GET test. Another question in the focus group represents the characteristic Risk-taking:

“Given you have the skills required to start a business and the opportunity to take a job you find interesting, would you rather prefer to have a steady income at a safe job than the chances of making a lot of money on a business you believe could work?”
This purpose of this question is to combine risk-taking questions from the GET test and construct a reflective question that allows deeper answers that supports the aim of this study. So by constructing questions related to the characteristics we can obtain richer results that supplement the analysis of the study. When posing these questions the moderator makes sure that all participants has the opportunity to answer and also discuss when all participants had their say. To solidify the link between enterprising and education we also constructed questions that open up reflections concerning whether the participants feel they have enough skills or knowledge to start a business or what they feel is missing.

“What skills or knowledge do you think your educational background has equipped you with in terms of potentially starting a business?”

This question lets the participants reflect and discuss what their education has equipped them with in terms of enterprising abilities. Doing this helps this study create more understanding about the differences between the two respondent groups. It provides a sample of concrete differences between educational fields in terms of enterprising and creates more understanding for the results from the GET test.

4.5 Analysis design

After gathering the quantitative data it is analyzed using the statistical software program SPSS. The GET test is decoded through using the specific manual for it online which then presents scores in the five personality dimensions. These scores is put to statistical test of how the mean scores differ between the two test groups and how it connects back to theory. For example drive and determination need for achievement, risk-taking, creativity and autonomy will initially be individually analyzed of how they measure between the test groups and the possible implications of that both theoretically and empirically. Second, the overall scores from all dimensions will be put together so to analyze in aggregate if the hypothesis holds or needs to be rejected. In either outcome an analysis will be carried out to see how it relates back to theory, if the theoretical foundation for the study proves right or if this study can be put as a part of opposite indications. To aid in this process the focus group results will create more understanding for the GET test results and explore the five entrepreneurial characteristics from a qualitative angle.

The focus group results are transcribed into a written format from the electronic recordings. As the focus group was conducted in English which is not the first language for some of the participants the empirical results will be rewritten so that it is understandable but still in a way so that the original meaning will not be compromised. However where it is possible the original and exact sentences will be used. When the focus group results are transcribed it will be analyzed together with the GET test results to enrich the analysis. The GET test statistically infers the levels of entrepreneurial characteristics the two test group’s show, indicating enterprising tendency and will be analyzed in the context of the theoretical framework for entrepreneurial characteristics.
The focus group analysis aims at getting more flesh to the bones from the test groups and why they might answer like they do, this in order to create understanding regarding enterprising tendency in terms of business students’ contra non-business students. The two methods combined enrich the analysis of the study in that it increases the depth of knowledge the study derives. All results and consequential analyses will be presented in the empirical and analysis section of this paper.

4.6 Truth criteria

Scientific methodological concerns such as validity and reliability play an important role in this research. Validity can be broken down to many parts dealing with different issues but two main concerns are internal and external validity. Internal validity has to do with for example if x really causes y, if we really can infer that such is the case and not something else that affects it (Saunders et al. 2009, p. 372). In the context of this research it could mean that if the GET test is a valid indicator for claiming that a higher score in the test equals a higher enterprising tendency. As validity have been empirically proven for the GET test to measure what it intends to measure and referenced in the data collection section, internal validity concerns can be relaxed.

External validity deals with generalizability issues such as if the results of a study can be applied to other settings than the one researched, which is also the reason for why representative samples are so important (Saunders et al. 2009, p. 367). The qualifying criteria for being a part of this study’s test groups have been well defined in the respondent selection section which obviously is a step in the direction of increasing sample precision.

The criteria of having an undergraduate degree worth 180 ECTS whereof 90 ECTS being in business administration for business students and between 60-90 ECTS of the same subject for non-business students ensure a representative sampling criterion which should be possible to generalize to other university settings in Sweden as the formal requirements are largely the same.

Reliability concerns if the study at hand is repeatable and consistent, meaning that the measure, which in this case is the GET test is a stabile measure. (Cromie & Callaghan 1997, p. 65) claims that the GET is a reliable and valid instrument after having conducted a study solely aiming at researching the usefulness of the GET test, and (Stormer et al. 1999, p. 51) claims that it is acceptable for research purposes. On the merits of these studies it is possible to conclude with some confidence that the GET test is a consistent and reliable measure for enterprising tendencies. Moreover as the focus group questions are based on the scientifically reliable and valid GET test representing the entrepreneurial characteristics used in this study, the focus group questions also rest under the same truth criteria discussed in this section. Furthermore validity and reliability of the study is increased using a combined quantitative and qualitative strategy as in the case with the focus group and the GET test as more information on a phenomenon axiomatically lead to better understanding which increases validity and reliability of the topic of study (Nummela & Piltomäki, 2006, p. 11).
4.7 Research ethics

Research ethics encompass many issues and considerations. It might be thought of as solely having to do with plagiarism however this is not the case. This study emphasizes ethics as an important part of research and hopes to have covered a sufficient level of ethical ground. Initially this research relies on four ethical principles even though mostly used in qualitative studies it still carries significance for quantitative ones.

The principles are, harm to participants, lack of informed consent, invasion of privacy and deception (Bryman & Bell, 2007, p. 132). As the GET tests are handed out all of the respondents are informed that their answers are totally anonymous and that no one can be personally identified. Prior to handing out the tests an explanation is given regarding the purpose and intent for using the obtained information so to eliminate the risk of deception.

No pressure is put to answer the test, meaning that the respondents always have the option of not participating if they for any reason feel that they do not want to or can not do so. Furthermore as the test is handed out in a class room or in other parts on campus and accordingly in a public space there is not much risk for invasion of privacy. These are the fundamental ethical principles that are followed in this study. The focus group naturally also followed the ethical principles employed for the GET test and the participants had the same possibilities to decline the offer to participate and the opportunity to be completely anonymous.

Other ethical considerations are of course avoiding plagiarism at any cost and that the study and data analysis are conducted in a strictly objective scientific manner. One enforcing measure for this is the methodological sections of this thesis aiming at describing the process and procedures of research as vividly and transparent as possible. Another important ethical obligation is to extend proper credit to Durham university business school and acknowledge their impressive work. It is by courtesy of them that we could use the GET test to test and hypothesize the theory that is the very foundation of this study.

4.8 Limitations of the study

All studies have limitations including this one and the relevant question is whether those have significant impact on credibility or not. Determining that in its entirety requires more resources than this study can account for especially time wise. As for most research articles, theoretical concepts and tools in the field of entrepreneurship there are scholars claiming that more work needs to be done in order for a framework to be acceptable or a test to be valid as is the case for the GET test. According to Stormer et al. the GET test lacks reliability to predict business success. However this study does not aim to predict business success merely to infer tendencies towards it.

When gathering data this study does not employ probability sampling but rather non-probability sampling in the form of convenience sampling. The potential problem with this is obviously generalizability as handing out the GET test to non-random classes implies that the classes do not qualify for the criteria of random respondents. The mere
fact that they all go in the same class studying a certain subject may harm
generalizability in that it cannot be generalized to other master students. However as the
criteria for this study is not as much what kind of master students the respondents are or
which course they are taking but that they have completed an undergraduate degree in
business or non-business with the properties described in the respondent selection
section it still carries sufficient randomness for some generalization.

Furthermore a limitation in the five personal dimensions that this study uses for
characterizing enterprising tendencies in the test groups is that even though this study
hypothesize to find higher tendencies in business students it does not mean that other
people cannot have the same characteristics. Put in other words, even though this study
have the criteria of a completed undergraduate degree for being eligible to be part of
this research it does not mean that a person without any education cannot display a high
enterprising tendency and consequently a high score.

Hence this disclaimer emphasizes us not taking a stand in what background a person
needs to have in order to show a high enterprising tendency, instead we compare two
groups in relation to each other on the merits of their relevance for enterprising.

Other general limitations include the time frame and resources available for conducting
a proper study on the subject. As familiar a generous time frame is essential for
increasing generalizability and credibility. Time offers the opportunity to gather more
data for analysis which leads to higher accuracy which is intimately connected to the
resources one have available for doing so. As this study has relatively little of both time
and other resources it becomes somewhat of a limitation but perhaps not decisive.
5. Empirical findings

This chapter presents the empirical findings that this research has generated and comments explaining them as well as accompanying graphs that illustrate the comparisons that are made.

5.1 Quantitative findings

The original data collected has been analyzed and interpreted in the statistical software program SPSS. The GET test results were inserted into SPSS in order to calculate the means and if the discovered mean differences were significant, or in other words sufficient enough not to be caused by chance. The method employed was one-way t-tests where the hypotheses that the means were equal were tested.

The means of the five enterprising characteristics as well as the total score of the two test groups were compared and tested for significant differences. Whether the hypotheses are rejected or not are determined by the t-statistic in comparison to the critical value and the p-value indicates the probability of the observed mean differences being caused by chance or not. In presenting the results the original SPSS output will be included and visually aided by attaching a bar chart showing the differences.

H1: Business students will score higher on the GET test on aggregate than non-business students.
<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>63</td>
<td>41.94</td>
<td>3.801</td>
<td>.479</td>
</tr>
<tr>
<td>Non-business</td>
<td>57</td>
<td>36.63</td>
<td>3.222</td>
<td>.427</td>
</tr>
</tbody>
</table>

**P = 0.000000000000165**

With a P-value as low as this, the probability of the mean difference being caused by chance is very small indicating that there is a significant difference. We can thus accept the hypothesis and conclude that business students on aggregate statistically show higher enterprising tendency than non-business students.
**H1:** Business students will score higher on need for achievement than non-business students.

![Graph showing need for achievement](image)

<table>
<thead>
<tr>
<th>Group1</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Need for achievement</td>
<td>Business</td>
<td>63</td>
<td>10.03</td>
<td>1.448</td>
</tr>
<tr>
<td></td>
<td>Non-business</td>
<td>57</td>
<td>8.61</td>
<td>1.544</td>
</tr>
</tbody>
</table>

**P = 0.00000049**

The p-value indicates a clear significant difference. We accept the hypothesis and statistically conclude that business students show higher tendency towards need for achievement.
H1: 2: Business students will score higher on need for autonomy than non-business students.

![Need for autonomy chart]

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autonomy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>63</td>
<td>4,32</td>
<td>1,013</td>
<td>.128</td>
</tr>
<tr>
<td>Non-business</td>
<td>57</td>
<td>3,70</td>
<td>1,149</td>
<td>.152</td>
</tr>
</tbody>
</table>

P = 0.0012

There is a significant difference between the means and we accept the hypothesis which means that business students statistically have higher need for autonomy than non-business students.
H1: 3: Business students will score higher on creative tendency than non-business students.

<table>
<thead>
<tr>
<th>Group1</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creativetendency Business</td>
<td>63</td>
<td>7,81</td>
<td>1,595</td>
<td>.201</td>
</tr>
<tr>
<td>Creativetendency Non-business</td>
<td>57</td>
<td>8,04</td>
<td>1,239</td>
<td>.164</td>
</tr>
</tbody>
</table>

On creative tendency we cannot reject the hypothesis. The mean for non-business students is actually higher than for business students.
**H1: 4:** Business students will score higher on risk-taking than non-business students.

![Risk-taking chart](chart.png)

<table>
<thead>
<tr>
<th>Group1</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risktaking</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>63</td>
<td>9.56</td>
<td>1.353</td>
<td>0.171</td>
</tr>
<tr>
<td>Non-business</td>
<td>57</td>
<td>8.04</td>
<td>1.068</td>
<td>0.142</td>
</tr>
</tbody>
</table>

**P = 0.00000000018**

There is a clear significant difference and we consequently accept the hypothesis. It is statistically valid to claim that business students show higher tendency to risk-taking than non-business students.
H1: Business students will score higher on drive and determination than non-business students.

<table>
<thead>
<tr>
<th>Group1</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Determination</td>
<td>Business</td>
<td>63</td>
<td>10.22</td>
<td>1.385</td>
</tr>
<tr>
<td>Determination</td>
<td>Non-business</td>
<td>57</td>
<td>8.25</td>
<td>1.214</td>
</tr>
</tbody>
</table>

A clear significant difference indicating that business students show statistically higher tendency for determination and drive than do non-business students. We accept the hypothesis.
5.2 Qualitative findings

Education and enterprising

In the discussion about what kind of knowledge or skills the participants had been equipped with from their educational background in terms of starting a business many reflections came up. Initially all participants regardless of academic background agreed that studying on an advanced level had developed their analytical ability which potentially could help them understand markets and crucial factors that could affect their businesses.

*Non-business student nr.1:* “Spending a couple of years in the academic world has enhanced my analytical ability to critically think about problems and understand the core issues, I thus think that should I have a business I could be able to understand the market I would operate in given I had some more knowledge about business”.

This was more or less the only common ground the participants shared in this question. The business students talked about having business skills in the sense of understanding how a business works and how to run the daily operations. Their educational background had trained them to understand how a real business works and they both appeared confident in the fact that should they have a business of their own they could succeed to manage it effectively. However as they felt they had intimate knowledge of how to operate a business they were also aware of the risks associated with it.

*Business student nr.2:* “Knowing how to operate a business means you also learn about the risks, the fact that 9 out of 10 new businesses go bankrupt is not very encouraging”.

On the other hand the non-business students spoke about that their education had provided them with knowledge of their field which could be a benefit in terms of coming up with products or services. It was expressed that their educational background might not have equipped them with business skills but they had knowledge about their field which could lead to innovations and in that way be considered advantageous in terms of starting a business.

*Non-business student nr2:* Knowing how to operate a business is obviously important but it is my understanding that having technical knowledge about a field is beneficial as well, we have the opportunity to come up with new ideas and concepts that can generate new businesses and that I consider is a benefit or skill as you put it, that our educational background has provided us with”.

As the discussion moved on to perceived obstacles to start a business the business students and non-business students expressed different concerns. A common concern was however financing. Regardless of academic background all students were aware of the implications of the financial crisis and the difficulties that came with it in terms of access to capital.
The fact that even a good business idea might fail because of the difficult state of the economy was considered a huge obstacle that inhibited the participants from seriously considering starting a business. Closely following this perceived obstacle the participants recognized that not only does the state of economy affect access to finance but also demand for products and services.

Business student nr.2: “I think that in order to start a business in this economy you either need to have a new “facebook” kind of idea or a rich family that believes in you because accessing external capital is tough if you don’t have any experience or track record”.

Other difficulties that were mentioned were networks and contacts. Given that the financing issue was solved contacts and network were considered crucial among the business students in order to compete and be successful.

Business student nr.1: “I agree that financing is tough but I still believe that it is possible, I would rather say that good networks and contacts is a big obstacle if you don’t have it because otherwise how are you going to compete with the established firms”.

Besides the perceived financing issue and weak markets the non-business students expressed different concerns about obstacles to start a business. Their concerns were more directed towards knowledge gaps. Even though they had a good understanding of their field and potential market which could generate innovative ideas they expressed lack of fundamental business knowledge to take it further. They were worried that if they came up with a good idea they could not commercialize it as they did not know how to operate a business and tackle issues related to it. The non-business students thus felt they did not possess the relevant business knowledge to start a firm which in their perspective was the largest obstacle.

Non-business student nr.2: “I agree with the others that the economy is tough and the problems that come along with it but for myself I would say that my largest obstacle towards starting a business is business skills. I obviously don’t have the skills that the business students have acquired and I feel that even if I had a great idea I would not know how to proceed and market it little along operate it”.

As for additional knowledge that the participants feel they would need in order to successfully start their own business differed between both groups. The non-business students talked about them lacking fundamental business skills to operate and manage a business. It was similar to the perceived obstacles in the previous question. When probing what the non-business students meant by fundamental business skills it was referred to daily operations, book keeping, marketing and sale channels.

Non-business student nr1: “I think my answer regarding additional knowledge is the same as that for obstacles, fundamental business skills, I feel as if I would need to know more about how to technically manage a business in order to be successful”.

The business students had a different view of what type of knowledge they needed to have in order to be successful in starting a business. For them it was more related to experience. They claimed to have the technical business understanding of how to manage a business which they had acquired from their educational background and any
additional knowledge they would need they could get from the different authorities that help to promote new businesses. The experience they felt they would need was in terms of knowledge of industry, supplier, customer and other types of useful contacts.

Business student nr.1: “I feel as if I could manage the technical aspects of running a business such as the daily operations but I would be more comfortable if I had experience of how the industry works and had contacts in it”.

On the question if the participants could see themselves starting a business there were different reactions based on different views. One of the business students did not want to start a business as he did not see himself as an entrepreneur nor did he want to seek such a challenge. The other business student said that if the right circumstance and the right opportunity presented itself he could consider starting a business. The business student that could see himself starting a business given the right circumstances also stated that having a business would be in line with his strength of being determined to achieve his goals. The arguments by the business student not wanting to start a business were based on wanting to pursue a career and excel at certain areas and being an important part of an organization. Having good colleagues and fun at work was also mentioned as arguments supporting the position of seeking a career at established firms or organizations.

Business students nr.2: “Starting a business is not part of my career goals, I want to develop my skills in a certain area and be part of a team where I can grow and be appreciated I think being an entrepreneur is too lonely and impulsive for my part”.

The non-business students had a different view on starting a business but somewhat similar to the business students. Both of the students could theoretically see themselves starting a business but the likelihood of doing so was deemed very low. Also they brought up the same arguments as was mentioned in the question of obstacles, namely lack of business skills. Furthermore they reasoned that if they would gain sufficient industry insight to develop a new product or service in their field they could seriously consider going into business provided they had the right resources.

Need for achievement

What are your reflections about aspiration and personal development versus having a safe and well paid but routine job?

The matter of need for achievement in terms of personal development and aspiration versus having a well-paid but routine job generated a fruitful discussion. The prevailing opinion was that none of the participants would after higher level of studies want to work in a routine job everybody wanted to achieve something. However probing further on what this meant for the participants revealed differences. The business students shared the point of view that one of the major reasons they decided to study on a higher level was because of aspiration. Self-completion and the opportunity to excel at a certain area of interest was a huge motivator. They expressed a desire to build a career and move forward all the time with little regard of losing nice colleagues and a family-like atmosphere at work which was of importance to the non-business students.

Business student nr.2: “Besides money one of the biggest motivators for me is to become good at what I do and develop my skills and constantly be challenged, I mean
some people talk about making a lot of money working in Norway in some kind of hard-hat industry, but then I usually reply money is not the sole reason, I could not have a routine job in the long run I need to be challenged intellectually and excel regardless of quick cash”.

The non-business students did not share the same view in entirety but were not as focused on their careers as the business students. The non-business students talked more about the value of having a good workplace with a healthy corporate culture and inspiring colleagues where they could combine a career with a balanced life outside of work. However the non-business students also emphasized the value of personal development but not at any cost.

Non-business student nr.2: “I think if you study at a higher level you don’t want a routine job I think it signals quite the opposite, I want to become better at my job and develop my skills but I also value having a nice workplace and healthy atmosphere where work is not everything and people have lives outside of work I wouldn’t mind staying at the same company throughout my career as long as I have the opportunity to grow”.

Non-business student nr.1: “I value security, of course I want to be challenged at work but that is not the most important for me I want to be able to have a family and live in the same city so I could definitely see myself having a safe and well-paid job, for me there are more important things than having a career”.

Need for autonomy

Would you rather solve a challenging task together in a group or by yourself where you can work independently?

Working in groups for reports, cases and other tasks have been a frequent method during the education for all participants and is something all felt comfortable with. Having been forced to work with all different kinds of people in projects has made the participants better at communicating and together with others solving tasks. Both business and non-business students agree that working in a group can be very challenging but also rewarding. The opportunity to get a variety of inputs is often good for challenging tasks.

Non-business student nr.1: “As our education has largely consisted of working in groups I feel comfortable with it and rather solve difficult tasks in a group”.

Furthermore the participants did not differ very much in their opinions regarding working in groups or independently. All emphasized the practice in teamwork that their respective educations had provided them and felt comfortable with it and preferred it in difficult situations. One of the business students were however not as enthusiastic as the others about teamwork and emphasized the pitfalls that can arise in groups.

Business student nr.1: “The benefit of working independently is of course to make your own decisions and stick with them and thus practice independent thinking, however I do like to solve tasks in groups but sometimes when the group has bad dynamics it can go very wrong. I have been part of many international groups in my education and some of them have gone very bad”.
Creative tendency

Assuming you are expected to carry out a difficult project; are you more likely to have ideas about alternative ways it could be done or more likely to focus on getting it done as effectively and fast as possible?

This question resulted in a discussion where the participants adopted different positions but differences were detected between the groups. The business students spent more time talking about the importance of effectiveness and getting things done on time. Their education and future career field was given as part of the answer for this. It was discussed that in business the important factor is to show that you can handle tasks and get it done on time. That as long as the work is done to properly it doesn’t matter how innovative or special it is, the main thing is to show that you are capable and effective. Therefore the business students claimed that they usually focus on how to most efficiently solve a task.

Business student nr.1: “How you have solved a task is not valued as much as just getting it done correctly in business which is why I mostly belong to the group of people in projects that tries to find the most efficient way of getting things done”.

This approach was not as much discussed by the non-business students who through their education felt the solutions were more prioritized. As their field of studies involved more technical tasks, they reasoned that innovative solutions were valued and concluded that they usually belonged to the group of people in projects that focused on the different ways a task can be solved and the value of that.

Non-business student nr.2: “As our field of study is based more on smart technical solutions I think at least for my part that I try to face a difficult task creatively and try to think of different ways it could be done more than the fastest way”.

Drive and determination

If you were responsible for an important challenging project that you were highly passionate about but weren’t sure if you could successfully complete on time and someone came and offered you to finish it meaning that you were no longer held responsible for a potential failure, how would you reason?

The question related to drive and determination resulted in answers that were similar but to different degrees. All participants would in the longest try to complete the project but some more than others. One of the business students argued that he would never give up on something he was passionate about. If he committed to anything he would see it through regardless of consequences.

Business student nr.1: “In my opinion a commitment is a commitment and you honor it, especially if I were personally passionate about it I would never give up even if it meant I got fired, and I think if you have that attitude you will make it”.

48
The other business student agreed but to a lesser extent, he was of the opinion that he would do anything to make it work but if he had a chance to opt out without consequences he would cut his losses and continue without it. However he also pointed out that he was very determined with the things he wanted to accomplish and would thus not fold easily.

The non-business students agreed that they would try to do everything to make it work but were more concerned about the consequences of failure. For example that losing one’s job over pride would not be wise as a job at the end of the day is only a job which both agreed on.

Non-business student nr.2: “I obviously would also do everything in my power to complete it but not if I would lose my job, at the end of the day a job is a job and I would not let my family suffer because of my pride”.

Risk-taking

Given you have the skills required to start a business and the opportunity to take a job you find interesting, would you rather prefer to have a steady income at a safe job than the chances of making a lot of money on a business you believe could work?

The question related to risk-taking resulted in totally different answers between the groups. The non-business students would rather take the job than facing the risk of a new venture. The reason was both the uncertainty of going into business and the administrational tasks they would have to face. They both agreed that what they wanted to do was working with the core technical aspects which they were trained for rather than having to spend much time on administration. As for the risk of starting a business they felt uncomfortable with it because they did not want to put their life on the line because of a business. They valued the certainty more and the opportunity to work with things they found interesting.

Non-business student nr.2: “If I had the opportunity to take a job I find interesting I would rather do that because that is what I really want, also the risk of losing everything because of one business idea is not appealing to me”.

The business students did not agree. However one of the business students were more cautious and felt that he was torn between the two options as he wanted a career in an established firm and not start a business but if he really believed in it and had the right experience he would probably go for it. The other business student were more certain and instantly replied that he would go for the new venture. He believed that risk is a part of life and if you don’t take risk you will never get anywhere.

Business student nr.1: “I would definitely start the business if I had the chance, you have to face risk in life or else you will never get anywhere”.

49
6. Analysis and Discussion

In this chapter the theoretical framework outlined earlier, will be linked to the empirical findings. The theoretical framework consisting of firstly business education and theories of its linkages to enterprising will be discussed in relation to the empirical findings. Then empirical findings will also be discussed in relation to the theories of the five entrepreneurial characteristics; namely need for achievement, need for autonomy, creative tendency, drive and determination and risk-taking. The findings from the focus group will be analyzed as well, mostly in relation to the quantitative findings but also in isolation.

The purpose of this study is to test if business students show higher enterprising tendencies, measured by the five entrepreneurial characteristics, than do non-business students and in this way see if a business education might affect enterprising tendencies in individuals. It is argued that the most important characteristics in starting a business is high need for achievement, high need for autonomy, creative tendencies, drive and determination and risk-taking and in measuring these characteristics in individuals by using the GET-test and a focus group as is done in this study, levels of enterprising tendencies can be tested. In other words, in this study, as familiar, it is tested if these five characteristics are higher in business students than in non-business students. The research question for this study is:

- Are enterprising tendencies higher for business students than non-business students?

This is tested by comparing mean scores for the two groups, business students and non-business students, for all the five characteristics and also total mean test score on the GET-test and also creating more understanding for the quantitative data with the empirical results of the focus group. After comparing the means it is tested if differences in the means are significant. From the quantitative empirical findings it can be concluded that:

- Business students show higher total enterprising tendencies than non-business students.

- Business students show higher need for achievement than non-business students.

- Business students show higher need for autonomy than non-business students.

- Non-business students show higher creative tendencies than business students.
• Business students show higher drive and determination than non-business students.

• Business students show higher risk-taking than non-business students.

With the help of the focus group a more in-depth understanding of the results will be created. For example what can, having higher drive and determination mean for an individual concerning enterprising, why do business students score lower in creative tendency. The focus group will also help reinforce the results, analysis and conclusion drawn from the quantitative data.

6.1 Business education in relation to the total score on enterprising tendencies

In the light of the quantitative empirical findings; namely that business students indicate having higher enterprising tendencies than do non-business students, it can be seen that this is in line with what was stated in the literature review about education and its linkages to enterprising. It was stated that in studying business one acquires knowledge about founding, operating and managing an enterprise (Umeå University, 2012). In doing so, having knowledge in enterprising is important in starting a new business (Gnyawall & Fogel 1994, p.55, Ucbasaran et al., 2003, p.208). This is also coherent with the empirical results from the focus group where the business students expressed that their education had equipped them with the knowledge to operate and manage a business enterprise.

Also in line with this study’s empirical findings is what Sanchez found in his study, as mentioned in the literature review. In that study it was found that through a business education, individuals scored higher on need for autonomy and risk-taking (2010, p.249) which are two of the characteristics tested in the GET-test used in this study. Both this study and Sanchez’s indicates that through a business education entrepreneurial characteristics will be increased in individuals. What this study has contributed with further is that not only autonomy and risk-taking has been tested but also the three other important entrepreneurial characteristics which gives a further understanding of entrepreneurial characteristics in relation to a business education. To our knowledge there has been no studies testing all five entrepreneurial characteristics at the same time when comparing business students to non-business students which this study has done.
This also indicates a link between gaining knowledge about founding, operating, and managing an enterprise (which is what a business education is intended to do) and the entrepreneurial characteristics tested in the GET test in order to measure enterprising tendencies. It is difficult to conclude the exact nature of the link but it can at least be said that the five most prominent characteristics in starting an enterprise added together is higher for those with an undergraduate in business where one gains knowledge about enterprising than for those with an undergraduate in another social science field.

What separates the two tested groups is their field of education and as the first group scored significantly higher in enterprising tendencies in total it can at least be implied that the first group’s education influence and increases enterprising tendencies in total. As hypothesized business student score higher on the GET test than non-business students and as this is unlikely to be a coincidence it is because of their business education. Exactly how a business education influences enterprising tendencies and why it is increased in aggregate is hard to conclude but it can from this study be said that business students score higher which was what Sanchez (2010) also found at least when it comes to risk-taking and need for autonomy. The difference with this study is that it can also be seen that business students scored higher in need for achievement and drive and determination as well as this study measures five entrepreneurial characteristics.

Moreover Garvan & O’Cinneide states that no-one is born an entrepreneur but becomes one by acquiring knowledge (1994, p.3) and at least some of this knowledge is likely to come from a business education. It is possible to say that those with higher enterprising tendencies tend to start studying business and that is why they have higher scores. However, one can with some confidence also state that through a business education, knowledge about enterprising will be increased and enterprising tendencies as well, as no-one is born an entrepreneur. That individuals starting to study business have higher enterprising tendencies to start with can be a factor for the higher aggregate score but it is also likely that through gaining knowledge of enterprising, enterprising tendencies will increase, but it is difficult to exactly conclude how it is concerning this.

From the focus group it could be found that what the non-business students felt that they lacked was knowledge about starting a business in order to do so. This could be linked to what was stated above in the analysis; namely that having knowledge in enterprising is important in starting a new business (Gnyawall & Fogel 1994, p.55, Ucbasaran et al., 2003, p.208). From the focus group it was further highlighted that having knowledge in starting and running a business is beneficial and will increase the tendency to do so. At least it was perceived to be so by the interviewed. For example the non-business student nr.2 stated that “I agree with the others that the economy is tough and the problems that come along with it but for myself I would say that my largest obstacle towards starting a business is business skills”.

Furthermore, the non-business student nr.1 stated: “I think my answer regarding additional knowledge is the same as that for obstacles, fundamental business skills, I feel as if I would need to know more about how to technically manage a business in order to be successful”. The two business student could more evaluate certain obstacles in starting a business, why it is hard to finance for example, in accordance with what they have learned studying business. On the other hand the two non-business students felt that the biggest obstacle in starting a business is that they do not know how. From this it can be argued that tendencies for starting a business are higher for the
two business students, because they have been taught how. They can in a more precise manner evaluate difficulties, benefits vs. risks and so on which is a product of their business education.

What can be concluded is that business students score higher on the GET test than non-business students. As stated in the beginning of this paper the five characteristics is not necessarily characteristics inherited in a person but can be in the form of actions undertaken when enterprising (Gartner 1988, p. 64) which one learns about studying business (what actions to take when enterprising). Through a business education it is learnt what it takes to start and manage an enterprise; put in other words what actions to take to do so. This is further in line with business students scoring higher on the GET test and also that entrepreneurial characteristics can be learnt as it can be in the form of actions and not necessarily inherited in a person. Now let’s examine the relation between the empirical findings and the five entrepreneurial characteristics one by one.

6.2 Need for Achievement in relation to empirical findings

Business students score on need for achievement was significantly higher than for non-business students. Having high need for achievement means to have highly set standard for oneself and feel the need to accomplish difficult tasks and goals that is set up (McClelland, 1963). In starting an enterprise one needs to have highly set standards and be willing to work hard in order to start and manage an enterprise and be successful; it requires accomplishing difficult tasks and reaching highly set goals. In terms of enterprising business students show a higher need to accomplish difficult tasks and goals that is required in starting and managing a business. Scoring high on need for achievement indicates that you are result and task oriented and self-confident (Burns, 2003). That is consequently what business students show more of; in aggregate they indicate being more result and task oriented and more self-confident.

In knowing how to found and manage an enterprise, which is learnt finishing an undergraduate degree in business, it is logically easier to be result and task oriented and self-confident in doing so. If an individual have no, or at least less knowledge about enterprising it is naturally harder to set up tasks and goals and as a result will have less motivation to do so. Need for achievement as mentioned in the literature review has much to do with motivation to achieve difficult tasks which is important in starting an enterprise (Berthold and Neumann, 2008, p.238). From a business education it is learnt what it takes to start and manage a business; that it is difficult but even so possible if one works hard and puts in a lot of effort and from this need for achievement might be affected.

One question concerning need for achievement in the GET test was, as stated previously “If I am having problems with a task I leave it and move on to something else” where you get one point in need for achievement for disagreeing with the statement which shows that you will not give up until you have completed a task and that you believe in yourself to accomplish difficult tasks. It is this confidence and result orientation that is more evident in business students.
What does business students scoring higher on need for achievement imply? What can be said with certainty is that business students show higher enterprising tendencies concerning need for achievement, but are they more likely to start an enterprise than non-business students because of it? Previous research done by McClelland (1963) indicates this and as stated in the literature review it was found in his study that those who were now entrepreneurs 83% of those had when they went to college 14 years ago scored high on need for achievement versus only 21% had scored high of the non-entrepreneurs (McClelland, 1963, p.390). If need for achievement tested in this study follow the same pattern as in McClelland’s study it will mean that business students are on aggregate more likely to become entrepreneurs; to start their own business, than non-business students. This is another example of a study testing entrepreneurial characteristics but only one, namely need for achievement, whereas in this study all the five prominent characteristics has been tested in individuals.

Furthermore, by the logic of Hornaday & Aboud, (1971, p.143); Smith, (1973); Mehrabian, (1994/95) and Caird (1991, p.180) who states that having high need for achievement is an important component to have as an entrepreneurial characteristic, business students are more likely to start their own business because the empirical findings show that they have a higher need for achievement.

From the focus group concerning need for achievement it was indicated that the two business students had higher need for achievement in terms of a career while the non-business more so considered security, family life and a workplace with a healthy atmosphere. Basically the business students were more focused on what they wanted to achieve with their career and did not so much consider a healthy workplace environment for example. Business student nr.2, as an example stated that “money is not the sole reason, I could not have a routine job in the long run I need to be challenged intellectually and excel regardless of quick cash”. This indicates that if not challenged intellectually and feeling that he can not accomplish what he wanted with his career in an already established company would consider starting his own enterprise, because the most important for him is to achieve and excel in his career. On the other hand the non-business students would more so take into account workplace atmosphere and security even though they are not challenged enough intellectually. In this way the results from the focus group is in line with the results of the quantitative study; namely that business students show higher need for achievement and as stated in the paragraph above, in accordance with previous literature is then more likely to start their own business.

6.3 Need for Autonomy in relation to empirical findings

The difference between the two tested groups was not as big in need for autonomy as the difference between the two groups in need for achievement. However business students did have higher scores than non-business students, and the results were significant; not a coincidence that will say. With a little more caution than was the case in need for achievement, one can say that business students do in aggregate have a higher need for autonomy.
Need for autonomy can be described as having the need to be independent, to do one’s own thing even though it is not according to the expected norm (Caird, 1991, p.181). In relation to the empirical findings, on average business students have a higher need for independence and to do one’s own thing. Individuals that score high on need for autonomy does not give in to group pressure, likes to do unconventional things and is stubborn (Burns, 2003). Someone with a high need for autonomy is in many ways someone that have own ideas and thoughts and even though they are unconventional and not according to the expected norm are ready to stand up for those thoughts and ideas and does not succumb to group pressure. Business students then tend to be more ready to stand up for one’s ideas, to stubbornly follow them through, to seek independence.

From the focus group as well the differences was not as evident in need for autonomy as in need for achievement between the business students and the non-business students. Their views were somewhat similar, however business student nr.1 considered the benefit of independent work and how working in groups can have its disadvantages. For example he stated: “The benefit of working independently is of course to make your own decisions and stick with them and thus practice independent thinking.” This fits in to the description of need for autonomy as someone that needs to be independent and do one’s own thing (Caird, 1991, p.181). In that sense, at least business student nr.1 showed higher need for autonomy. In the future working for a company, business student nr.1 might feel he is restricted by the company to work independently and to make his own decisions. He might see starting an own company as the only way to satisfy this need of independent decision-making and thinking.

If individuals with a high need for autonomy are likely to start their own enterprise is dependent on the circumstances, maybe a company that the individual works for offers enough independence for example. Because business student’s need for autonomy was not as much higher as in need for achievement compared to non-business students it can be beneficial to point out that circumstances can matter even though an individual have a relatively high need for autonomy. In the literature review it was written that Prottas had found that those that were self-employed had much higher need for autonomy than those employed at a company (2011, p.419). In relation to the empirical findings the question is if business student’s higher need for autonomy is enough to infer that they are more likely to start their own business or does it have to be much higher need for autonomy as Prottas found self-employed to have.

Looking into specific cases concerning autonomy, one could for example ask if Steve Wozniak left Hewlett Packard to start Apple simply because they did not offer enough independence for a person with relatively high need for autonomy or was it because Steve Wozniak had such high need for autonomy that circumstance did not matter and that no company would suffice (Apple Inc, 2012). In the light of this study’s empirical findings this could be legitimate questions to ask since there is a difference between the two tested groups concerning need for autonomy but perhaps not a big enough difference to matter in terms of enterprising. This cannot be concluded in this study but only that business students did in fact score higher than non-business students on aggregate in need for autonomy and that results were significant.
Mr Wozniak is also another example of a successful entrepreneur with no business education even though previous literature suggest that a business education in enterprising is important. This contradiction shows that it is important to study enterprising tendencies and its relation to education which this study set out to do.

Assuming that the difference in need for autonomy between the tested groups is sufficient concerning enterprising, business students indicates being more likely to start their own business since they scored higher on aggregate in need for autonomy. This is in accordance with Schein, who stated the need for autonomy is an important element when founding an enterprise (1994, p.88), and also Hornaday & Aboud, who pointed out that autonomy is a characteristic shown by most entrepreneurs (1971, p.143) as was stated in the theoretical part.

One question concerning need for autonomy in the GET test was, as stated previously, “I do what is expected of me and follow instructions” where you get one point in need for autonomy for disagreeing. This implies that to think independently and have your own take on things is more important than just trying to please someone (an employer) by following their instructions and the expected norm (Burns, 2003). Business students showed a higher tendency to be willing to think independently and not just follow what is expected and instructed.

6.4 Creative Tendency in relation to empirical findings

When it comes to creative tendency business students did not score higher, in fact, even though the difference is not so big, non-business students scored higher. Creativity was defined as “making and communication of meaningful new connections to help us think of many possibilities; to help us think and experience in varied ways and using different points of view” (Bessant & Tidd, 2011, p.156). In the light of the empirical findings it means that business student’s score on creative tendency indicates that the group as a whole struggle to find many possibilities and to use different points of view. At least business students do not rise above average in creative tendency, and might even be below average comparing them with non-business students who actually scored higher.

Moreover those scoring high on creative tendency are imaginative, innovative, curious and versatile (Caird, 1991, p.179), and in terms of enterprising business students do on average indicate lack of this according to the study’s empirical findings. Why that is can only be speculated about. One possible explanation can simply be that a business education does not offer enough training in developing imagination and innovativeness as it does concerning practical skills and knowledge about founding and operating a business. A business education (in relation to the empirical findings) might teach individuals what it takes to start and operate an enterprise, that it takes hard work, drive and more but seems to neglect or is unable to develop individual’s creativeness.

Some might argue that creativeness is not as important as the other four characteristics and that starting an enterprise and also be successful is just as likely anyway. However, as stated in the literature review, many would argue otherwise. Schumpeter (1934), a very important author in the field of entrepreneurship stated that creativity and innovation is a vital component in starting a new enterprise. In a similar way Carland et al. (1984, p.358) stated that in enterprising innovative practices plays a big part.
Connecting the empirical findings of this study to these statements it could be argued that the reason not more business students start their own enterprise is because their creative tendency is too low and has not been satisfactorily developed during the business education.

As Drucker puts it, in starting a new enterprise it is necessary to be creative, to see opportunities where others do not and in that way start a different business (1985, p.67). Business student’s lower score on creative tendency indicates that this creativeness is lacking and that they do not (on aggregate) see new opportunities and that is why not more start their own business.

One statement measuring creative tendency in the GET test is, as stated before, “sometimes I have so many ideas I do not know which one to pick” where you get one point in creative tendency for agreeing. From this it could be stated in relation to the empirical findings, that business students might not be taught to think in this manner, to constantly search for new ideas concerning enterprising but mostly learn practical skills.

As the two groups actually both scored relatively low in creative tendency compared to the other tested characteristics it could also be argued that having high creative tendency is more unusual than having for example high need for achievement and that developing your imagination and innovativeness is in general more difficult. By this logic it could be explained why not more individuals start their own business in general which EU strive to answer and find solutions to (Eurobarometer, 2010, p.3). Since a business education should teach you how to found, manage and operate a business (Umeå University, 2012) it is more relevant however to aim this question towards business educations. Moreover this is part of this research’s purpose, namely to see if a business education can indicate increasing entrepreneurial tendencies in individuals.

Does business student’s lower score in creative tendency mean that they are less likely to start their own company than non-business students? Since they scored higher in all the other characteristics tested (which also has been argued for as being important in starting an enterprise) and the difference in creative tendency was not so big it would be rather hastened to conclude that. It can at most just be a possible explanation to why not more business students start their own enterprise as was discussed above. Moreover Drucker stated that innovation can be purposely searched for and found and, as was stated in the literature review, used as a tool when enterprising (1985, p.67) so even though business student’s scored low in creative tendency compared to the other tested characteristics, innovation can still be discovered as it can be purposely searched for and found with for example drive and determination.

From the focus group what could be detected first and foremost was potential explanation why the business students scored lower on creative tendencies on the GET-test. Business student nr 1 for example said: “How you have solved a task is not valued as much as just getting it done correctly in business which is why I mostly belong to the group of people in projects that tries to find the most efficient way of getting things done”. From a business education one learns how to operate a business and there is more emphasize to getting tasks done, in a sufficient and effective way and there is not enough room for creative thinking.
On the other hand non-business student nr.2 said: “As our field of study is based more on smart technical solutions I think at least for my part that I try to face a difficult task creatively and try to think of different ways it could be done more than the fastest way.” This is a good example of how an education can affect student’s way of thinking; one being more focused on practical and theoretical skills and another education more praising creative thinking and innovative solutions. In turn this could be a possible explanation why not more business students start their own company.

6.5 Drive and Determination in relation to empirical findings

In drive and determination business students score was significantly higher than for non-business students where the business student’s mean score were similar to the score for need for achievement and even slightly higher with also a slightly bigger difference between the groups compared to the case with need for achievement. This means that business students have a higher internal locus of control which this concept is taken from. Those who have a high internal locus of control, as stated in the literature review, indicates having self-determination and believe that accomplishments is a product of competence and hard work (Caird, 1991, p.181). Business students then indicates having a higher drive and determination stemming from that they believe stronger in that hard work and ability will lead to accomplishments.

Those who score high on drive and determination do not believe in fate but instead that you make your own luck (Burns, 2003). It was stated in the literature review that it is important to be determinant and have the drive to succeed and try to accomplish that by putting in hard work and effort and not just believe in that luck will determine the success. Business students in the light of the empirical findings seems to have stronger belief in that you make your own luck and that it is through a lot of effort and hard work that you will succeed in enterprising. A statement on the GET test concerning drive and determination is “being successful is the result of working hard, luck has nothing to do with it” where a point is received for agreeing with the statement. This highlights the business student’s stronger determination and that they believe hard work will affect the success of a business and that is what matters, not luck (Burns, 2003).

That business students scored higher in need for achievement and autonomy can also be derived from them having a higher internal locus of control. Research has found a strong connection between having internal locus of control and having high a need for achievement and autonomy (Rotter, 1966). Having a high internal locus of control is more or less a prerequisite for starting an enterprise since, as stated in the literature review; it will be hard to do so if one believes that its success is more depended on luck than effort and hard work (Timmons, 1987; Joe, 1971).

It is this prerequisite that business students seems to have more of, they believe more in that hard work and effort will affect the success of the business which also leads to them having higher need for achievement and autonomy which is, as depicted previously in the analysis, important in enterprising. What was also depicted previously in the analysis was that by having a higher need for achievement and also autonomy business students will be more likely to start their own business than non-business students.
By that logic having a high internal locus of control, further indicates that they will be more likely to start their own business as this affects individual’s need for achievement and autonomy.

In the focus group it could in line with the quantitative data be detected that the business students believed stronger in that with enough drive and determination one can accomplish a task. They more so reasoned that one will be able to do so and not lose one’s job if enough effort and hard work is put in whilst the non-business student’s considered the risk of being fired even if one works very hard and put in much effort. Business student nr.1 stated: “In my opinion a commitment is a commitment and you honor it, especially if I were personally passionate about it I would never give up even if it meant I got fired, and I think if you have that attitude you will make it”. On the other hand non-business student nr.2 stated: “I obviously would also do everything in my power to complete it but not if I would lose my job, at the end of the day a job is a job and I would not let my family suffer because of my pride”.

So if for example business student nr.1 came up with an idea for an enterprise that he would be passionate about, he would commit to 100% and not give up and believe that with that attitude he will make it. Non-business student nr.2 would with a similar scenario much more consider the risk of failing and that his family would suffer from it, even if hard work is put in and would therefore not be as likely to start his own enterprise.

6.6 Risk Taking in relation to the empirical findings

When it comes to risk taking business students did score higher than non-business students. Even though the score for risk taking was not as high as in need for achievement and drive and determination the score can be seen as rather high and first and foremost a significant difference could be established between the two tested groups. Those who score high on risk-taking has been defined as someone that is decisive, able to act on incomplete information, have a good understanding of one’s own capabilities, can see well likely pros and cons of actions and sets goals that are challenging but attainable and also have an understanding of the probability that certain actions will be successful (Caird, 2012). Business student’s score indicates that they are more decisive and can judge benefits from costs of certain actions and if they will be successful even though exhaustive information is not at hand which is the case when starting an enterprise most if not all of the time. Just by that logic business students indicates being more likely to start their own business in the future than non-business students.

It was discussed previously in the analysis that having knowledge about starting an enterprise, which one should attain finishing an undergraduate in business, makes it easier to set up goals and better understand how they can be reached which can be beneficial when starting an enterprise. This goes hand in hand with that those who score high on risk-taking are able to set goals that are challenging but attainable and have an understanding of likely success of certain actions. Business students who scored higher in risk-taking have knowledge about starting an enterprise and in that way can better understand pros and cons of actions involving enterprising and can set hard but reachable goals.
That the two business student’s, especially business student nr.1, answered so different in the focus group compared to the two non-business students most likely has much to do with knowledge about starting and operating a business. The two non-business students would most likely not start their own enterprise because of the uncertainty and also because of the, in their opinion, difficult administration tasks. Business student nr.1 for example said: “I would definitely start the business if I had the chance, you have to face risk in life or else you will never get anywhere”. He knows that there are risks in starting an enterprise but feels more comfortable in calculating them and could set clearer goals. He believes and understands better how he could himself affect the outcome of starting a business, given he has an idea.

Shaver and Scott states that “considering a behavior with a long history in the analysis of new venture creation—the assumption of risk. Whether one reads Mill or asks one’s local venture capitalist, one leans that the founding of a new business organization involves significant risk” (1991, p.24). In summation starting an enterprise will inevitably involve assuming risk and in accordance with the empirical findings business students indicates having a higher tendency to be ready and also able to take on such risks. Business students indicates that they can more so accept risk if they see a chance of being successful in enterprising. Shaver and Scott (1991) also stated that entrepreneurs are more willing to take on risk than non-entrepreneurs and this is also what business students indicate. Since assuming risk is more or less necessary for starting an enterprise and business students score in risk-taking is significantly higher than for non-business students it seems that business students are more likely to start their own business in the future. They are more ready to deal with and take on risks in order to have the possibility to be successful in enterprising.

One statement in the test measuring risk-taking is, as was stated in the literature review “if I had a good idea for making some money, I would be willing to borrow some money to enable me to do it” and in agreeing with this you are given one point in risk-taking. An individual getting a point for this display that he/she is ready to assume risk if there is a chance to be successful and earn money (Burns, 2003). Business students displayed more of this readiness to assume risk if there would be a possibility to be successful. Moreover since business students have more knowledge in enterprising they would know how to commercially realize a business opportunity, they would know what goals to set up and how to attain them for example. This could be a reason for them agreeing with this kind of statement and on aggregate scoring higher in risk-taking.
7. Conclusion and further research

This chapter ends this study by concluding the findings and implications of the results. Moreover it provides insights to the possibilities of continuing to study this topic and what might be the ways in which to do so.

7.1 Conclusion and implications

The research question for this study is: Are enterprising tendencies higher for business students than non-business students? According to the empirical findings business students did on aggregate score higher on the test and therefore show higher levels of enterprising tendencies. Except for creative tendency, where non-business students had a higher score, business students scored higher in the four other characteristics, need for achievement, need for autonomy, drive and determination and risk-taking, with significance.

This study is an initial study within this field where not enough has been studied concerning all five prominent entrepreneurial characteristics and the link with higher education. Even though previous literature points out that knowledge in business is important in enterprising there are not sufficient studies done on this and there are examples in real life, as has been mentioned, of very successful entrepreneurs with no business education (Audia & Rider, 2005) which makes this study relevant and its results very interesting. Therefore this study and its results contributes much with indications of how these five entrepreneurial characteristics can be measured together and the link with higher educational fields and provides implications of what can be further studied which will be discussed in the next section.

As EU seeks to answer why not more individuals start their own enterprise and how enterprising can be increased what can be taken from this study? First of all it should be said that further research is necessary (as will be discussed in the next section) and what this study has also done is to shed light on the situation concerning enterprising and education and what can be further researched. This could be how creative tendencies can be increased by a business education and how having knowledge in business is related to enterprising tendencies which will be discussed in the next section.

It should be said that this study’s main audience is perhaps not EU but more directly higher education and what they can take from this study is that a business education seems to increase enterprising tendencies overall and by looking in to the four characteristics (in which business students scored higher) one by one, they all indicate that business students show higher tendencies to start their own business (in accordance to previous literature). What higher education would be perhaps even more interested in is that business students scored lower in creative tendency which previous literature also supports being important in enterprising and by that logic can be a reason for why not more business students start their own enterprise.
In relation to the other four characteristics this study pinpoints or at least indicates what can be improved in a business education and that is innovative and creative practices in order for more business students to start their own enterprise.

Concerning non-business students, students from other social sciences, this study opens up for discussion as to why they scored lower in need for achievement, need for autonomy, drive and determination and risk-taking. One conclusion that can be made from this study is that even though students from other social sciences might have a good idea for a business they do not have enough knowledge about founding, operating and managing a business which could affect these four entrepreneurial characteristics and reduce the likeliness of them starting an enterprise.

More than that knowledge about enterprising is important it could be, as mentioned in the further research section, a point in looking in to what can be altered in certain educations in order to increase these four characteristics in general. In this way this study as also helped in indicating what seems to be lacking in other social science educations concerning enterprising.

The focus group was in line with this study’s quantitative findings and reinforced the conclusion made from that; namely that business students have higher tendency to start their own enterprise, but lacks creative tendencies. Also it is reinforced that students from other social sciences, even though they might have a good idea for a business, lacks knowledge about starting, managing and operating a business which greatly affects their tendency to start their own company.

What the focus group also did was to give more concrete and more in detail examples of how these five characteristics measuring enterprising tendencies potentially can affect the likelihood of starting an enterprise. For example it was found how having higher need for achievement can affect the likelihood of starting an enterprise. Business student nr.1 indicated having high need for achievement and his answers/discussion pointed at if not challenged intellectually and feeling that he cannot accomplish what he wanted with his career in an already established company would consider starting his own enterprise.

The focus group also gave some detail explanation and possible reasons for the scores on the GET-test. For example, possible reasons why business students scored lower on creative tendencies were found in more detail from the focus group. It was evident that it had much to do with a business education being more focused on practical and theoretical skills whereas the non-business student’s education more praising creative thinking and innovative solutions.

It is furthermore important to emphasize that the focus group was a significant contributor in terms of learning more about the reasons behind the GET test results. The combination of quantitative and qualitative research is very fruitful because of the knowledge that was created through having the strategies complements each other. The quantitative component in terms of the GET test provided data that the qualitative component, the focus group could go deeper into and thus gain deeper understanding of the phenomenon. This allowed for an analysis which could discuss the findings of the GET test that the focus group could answer with its focused approach and hence maximize the knowledge output of this study.
7.2 Further research

As this research is a part quantitative part qualitative one with some emphasis on testing existing theories there is a possibility to go further with the intent of gaining new knowledge in the field. This study’s findings indicate a higher tendency towards enterprising in business students which might be interesting to go deeper into using for example a solely qualitative approach. Trying to better understand why this is so and use in-depth interviews. The interviews could perhaps address both business students and non-business students in order to contrast the findings.

As for the contents of the interviews we propose a questions related to what the students feel is missing in their education to become entrepreneurs. From this study we can see that scores on creativity is lower for business students and by conducting in-depth interviews one might be able to gain a clearer understanding of what is missing in terms of creativity. Also by interviewing both test groups one can observe the differences of what they feel is missing in their education. In the same fashion another topic for the interviews should relate to this study’s finding that business students show higher levels of all the other characteristics. One might think it is logical that business students should show higher enterprising tendencies but why that is so should be a natural continuation. Is it that you become more enterprising since starting a business education or does enterprising people tend to enrol at business programs?

Another research alley could emerge if one were to turn the question around; how come non-business students are significantly less likely to show higher enterprising tendencies than business students? It could be rewarding to research the enterprising tendencies in just non-business students and try to map the causes of why and how enterprising tendencies are lower and if that could change by altering some courses. A strong argument for researching this is obviously the high demand for entrepreneurs in society which both national governments as well as the EU recognize.

The economy is dependent on enterprising and in order to increase it to a sufficient level society cannot only rely on business educated citizens but also on non-business educated citizens. Thus, if future research could find out how to increase enterprising tendencies and incorporate it in all education regardless of discipline much would be won.

As for further research regarding specific findings concerning characteristics there are three noteworthy points which could be deemed important for future research. These are creativity, need for achievement and drive and determination. The fact that non-business students showed higher tendency towards creativity could be an interesting subject to find out more about. Should a business education consist of more creative elements which according to researchers are important for enterprising tendencies? Is it that a business education makes students too number fixated and mostly focus on pure operational matters of businesses?
One of the most interesting findings of this research is the significantly higher score that business-students showed in need for achievement and drive and determination. What does this imply and why is that? It could be a good opportunity to research using in-depth interviews. These characteristics are obviously admirable in any discipline which leads to the question whether they can be isolated and transferred.

Another further research topic is to scale up this study and conduct it nationally in order to see if the same results stand. This would be highly rewarding in many aspects. First, the more studies pointing in the same direction provides more evidence which can be used when wanting to increase enterprising in society. Second, the interesting findings of this study would be very relevant if it points in the same direction nationally. Thirdly, if more studies used the GET test it would provide more evidence in terms of its credibility and validity.
Reference list


OECD, (2008), Measuring Entrepreneurship: A Digest of Indicators.


Appendix 1

The GET test

This questionnaire called the GET-test consists of 54 statements which you choose to agree or disagree with. 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 circle the appropriate answer. This questionnaire will be entirely anonymous and is optional.

I am studying:

<table>
<thead>
<tr>
<th>Business on master level</th>
<th>Something else on master level (non-business student)</th>
</tr>
</thead>
</table>

1. I would not mind routine unchallenging work if the pay was good
   
   Agree
   
   Disagree

2. When I have set my own targets, I set difficult rather than easy ones
   
   Agree
   
   Disagree

3. I do not like to do things that are novel or unconventional
   
   Agree
   
   Disagree

4. Capable people who fail to become successful have not taken chances when they have occurred
   
   Agree
   
   Disagree

5. I rarely day dream
   
   Agree
   
   Disagree

6. I usually defend my point of view if someone disagrees with me
   
   Agree
   
   Disagree
7. You are either naturally good at something or you are not, effort makes no difference
   Agree
   Disagree

8. Sometimes people find my ideas unusual
   Agree
   Disagree

9. If I had to gamble $1, I would rather buy a raffle ticket than play cards
   Agree
   Disagree

10. I like challenges that really stretch my abilities rather than things I can do easily
    Agree
    Disagree

11. I would prefer to have reasonable income in a job that I was sure of keeping rather than in a job that I might lose if I did not perform well
    Disagree
    Agree

12. I like to do things in my own way without worrying about what other people think
    Agree
    Disagree

13. Many of the bad things that people experience are due to bad luck
    Agree
    Disagree

14. I like to find out about things even if it means handling some problems whilst doing so
    Agree
    Disagree

15. If I am having problems with a task I leave it and move on to something else
    Agree
    Disagree

16. When I make plans to do something, I nearly always do what I plan
    Agree
    Disagree
17. I do not like sudden changes in my life  
   Disagree

18. I will take risks if the chances of success are 50/50  
   Agree

19. I think more of the present and the past than of the future  
   Disagree

20. If I had a good idea for making money, I would be willing to borrow some money to enable me to do it  
   Disagree

21. When I am in group I am happy to let someone else take the lead  
   Agree

22. People generally get what they deserve  
   Disagree

23. I do not like guessing  
   Disagree

24. It is more important to do a job well than try to please people  
   Agree

25. I will get what I want from life if I please the people with control over me  
   Disagree

26. Other people think that I ask a lot of questions  
   Disagree
27. If there is a chance of failure I would rather not do it
   Disagree

28. I get annoyed if people are not on time
   Disagree

29. Before I make a decision I like to have all the facts no matter how long it takes
   Disagree

30. When tackling a task I rarely need or want help
   Disagree

31. Success cannot come unless you are in the right place at the right time
   Disagree

32. I prefer to be quite good at several things rather than very good at one thing
   Disagree

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
   Disagree

34. Being successful is the result of working hard, luck has nothing to do with it
   Disagree

35. I prefer doing things in the usual way rather than trying out new ways
   Disagree

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
   Disagree
37. I would rather work on a task as a member of a team
   Agree
   than to take responsibility for it myself
   Disagree

38. I would rather take an opportunity that might lead to even better
   Agree
   things than have an experience that I am sure to enjoy
   Disagree

39. I do what is expected of me and follow instructions
   Agree
   Disagree

40. For me, getting what I want has little to do with luck
   Agree
   Disagree

41. I like to have my life organised so that it runs smoothly and to plan
   Agree
   Disagree

42. When I am faced with a challenge I think more about the results
   Agree
   of succeeding than the effects of failing
   Disagree

43. I believe that what happens to me in life is determined mostly by other people
   Agree
   Disagree

44. I can handle a lot of things at the same time
   Agree
   Disagree

45. I find it difficult to ask favours from other people
   Agree
   Disagree

46. I get up early, stay late or skip meals in order to get special tasks done
   Agree
   Disagree
47. What we are used to is usually better than what is unfamiliar  
   Agree  
   Disagree

48. Most people think that I am stubborn  
   Agree  
   Disagree

49. People’s failures are rarely the result of their poor judgement  
   Agree  
   Disagree

50. Sometimes I have so many ideas I do not know which one to pick  
   Agree  
   Disagree

51. I find it easy to relax on holiday  
   Agree  
   Disagree

52. I get what I want from life because I work hard to make it happen  
   Agree  
   Disagree

53. It is harder for me to adapt to change than keep to routine  
   Agree  
   Disagree

54. I like to start new projects that may be risky  
   Agree  
   Disagree

   Thank you for participating!

   Gabriel Henderson and Marcus Palm
Appendix 2

Focus group questions

Education and enterprising:
What skills or knowledge do you think your educational background has equipped you with in terms of potentially starting a business?
What obstacles do you perceive stands in the way of you starting a business?
What additional knowledge do you think you would need in order to start a business?
Can you see yourself starting a business, why, why not?

Need for achievement:
What are your reflections about aspiration and personal development versus having a safe and well paid but routine job?

Need for autonomy:
Would you rather solve a challenging task together in a group or by yourself where you can work independently?

Creative tendency:
Assuming you are expected to carry out a difficult project; are you more likely to have ideas about alternative ways it could be done or more likely to focus on getting it done as effectively and fast as possible?

Drive and determination:
If you were responsible for an important challenging project that you were highly passionate about but weren’t sure if you could successfully complete on time and someone came and offered you to finish it meaning that you were no longer held responsible for a potential failure, how would you reason?

Risk-taking:
Given you have the skills required to start a business and the opportunity to take a job you find interesting, would you rather prefer to have a steady income at a safe job than the chances of making a lot of money on a business you believe could work?