

CHALMERS



Searching for Venture Creation Programs

A Master's Thesis Project in Entrepreneurship Education

Master of Science Thesis in the Master Degree Program Management and Economics of Innovation

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Abstract

This Master's thesis project serves to act as a foundation for future research in the area of Entrepreneurship Education (EE) and especially in the sub segment of a specific action-based entrepreneurship education program the author calls Venture Creation Programs (VCP).

The working definition of a VCP to be used in this master's thesis project is as followed:

"A Venture Creation Program (VCP) is an Entrepreneurship or business education on higher education level with a pedagogy firmly based on the creation of a real-life venture as their primary learning vessel"

This Master's thesis project was performed in two phases. The first phase consisted of performing a literature review in order to gain a solid background and understanding about the research area of entrepreneurship, entrepreneurship education and the concept of VCP. The second phase consisted of performing a explorative study during a three month research period to find as many potential VCPs as possible. Leading up to the purpose of this Master's which is to get an understanding if there are any more VCPs than then once we already know of from Chalmers University of Technology and further let this population help us evaluate strengths and weaknesses of the working definition used and if possible create a general idea how a VCP better could be defined.

The conclusions is that explorative study was relatively successful resulted in new confirmed VCPs, the working definition could be evaluated, and that the way forward for continued research in the VCP area is to redefine the definition. This Master's thesis project into entrepreneurship educations and Venture Creation Programs resulted in several interesting findings summarized below:

- The explorative study resulted in nine found VCP concludes that the education concept is rare in comparison to the total number of educations that have been studied during the research period.
- Besides the VCPs at Chalmers and University of Gothenburg the other confirmed VCPs are not older than 1-5 years, which indicates that the concept is relatively new.
- Results from interviews show that the complexity and the large amount resources needed to start a VCP are great obstacles. For example the complexity of setting up an incubator and the human resources needed sometimes very hard to find. The complexity does also result in that needs a lot of time, capital investments and effort to set up a VCP.

The strength of the working definition is that it severed it purpose do give the first initial description of the type of entrepreneurship education that the researcher was looking for. But it was discovered that the definition had many weaknesses:

- The definition was not clear enough, resulting in that it was misinterpreted in different ways and can therefore be seen as vague.
- The definition leaves some questions unanswered resulting in borderline cases. E.g. does the venture need to result in a legal entity?
- The authors understanding of many of the important nature of a VCP is not even reflected in the definition. E.g. the students' shareholder situation, the goal to continue the business after graduation.

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1 Introduction

1.1 Background

This master's thesis report serves to act as a foundation for future research in the area of Entrepreneurship Education (EE) and the sub segment the author calls venture creation programs. It can best be described as the first phase in a research project into the area of entrepreneurship education. In order to demonstrate the importance of this first phase and the purpose of this master's thesis, we will start by outlining the research project.

1.1.1 Previous research

Before a decision was made to launch this research project an initial literature review-based research in the field of entrepreneurship education was conducted. The larger part of this initial literature research took place during 2010 and was made by the PhD candidate Martin Lackéus. The conclusion after the initial literature research was to go ahead and create the previous presented research project, shown in figure 1. With Martin's practical knowhow about the area and the gained knowledge from the theoretical research he formed what later became the base for the working definition of venture creation program, the type of entrepreneurship education program this master's thesis aiming to investigate.

1.1.2 The Entrepreneurship Education Research Project

This research project aims to build general knowledge about and identify quality indicators of entrepreneurship education programs on higher education level dealing specifically with venture creation – Venture Creation Programs (VCPs). This general knowledge and the commonalities found are then used to establish a set of quantitative benchmarks. In turn, this is intended to facilitate quality improvement efforts, by providing a basis for quality discussions in the entrepreneurship education community globally. Once established, the set of benchmarks can be tested and discussed, potentially leading to a quantifiable ranking system of entrepreneurial education programs with venture creation approach. The emphasis on entrepreneurial education focusing on venture creation is based on theory that emphasizes the importance of experimental learning in entrepreneurial development. (Lackéus, 2010)

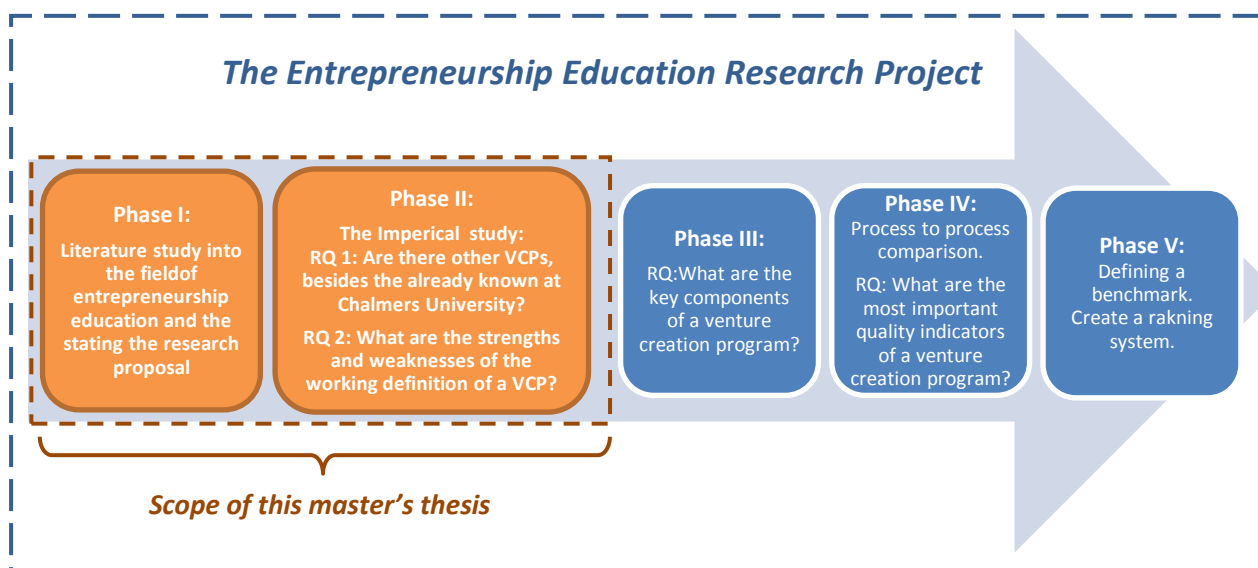


Figure 1.1: The five phases in the Research Project.

1.1.3 Research Phases I & II

This master thesis addresses Phase I and II of the research project, which together serve as a foundation for conducting phase III, IV, and V as shown in figure 1.

Phase I consists of performing a literature review in the area of entrepreneurship education. This is done in order to gain a solid background and understanding about the research subject of EE, which is crucial in order to be able to perform the qualitative study in phase II where potential VCPs are identified and a discussion about the strength and weaknesses of the working definition is presented.

Phase III, IV and V will go into much more detail and analysis on the core elements of entrepreneurship education. In order to be able to do this and arrive at a reliable conclusion, one must gain an understanding of the different types of entrepreneurship education there are. Without this, there are certain aspects of entrepreneurship education that could be missed, which ultimately affects the reliability and quality of the results. This is why this master thesis is crucial for the research program.

1.2 Purpose

The purpose this master's thesis is during a three month research period find as many potential VCPs as possible in order to get an understanding if there are any more VCPs than then once we already know of from Chalmers University of Technology and further let this population help us evaluate strengths and weaknesses of the working definition used and if possible create a general idea how a VCP could be defined.

The population of VCP will later be used in research project – Phase III, to build general knowledge about and identify quality indicators of entrepreneurship education programs on higher education level. This general knowledge and the commonalities found are, in research project – Phase IV, used to establish a set of quantitative benchmarks. Once established, a set of benchmarks could be tested and discussed, potentially leading to a quantifiable ranking system of entrepreneurial. Hence this thesis's is the foundation for the rest of the already planned research program into venture creation programs.

1.3 Aim

The aim in Phase I is to conduct a literature study to understand the concept of entrepreneurship and entrepreneurship education and why it is important.

The aim in Phase II is to under a three month period map out as many VCPs in the world as possible and with the findings try to answer these master's thesis research questions:

- **RQ 1:** Are there other educations, besides the already known at Chalmers University, that coincide with the working definition of a VCP?
- **RQ 2:** What are the strengths and weaknesses of the working definition of a VCP?

1.3.1 The Working Definition of a VCP

The working definition of a VCP to be used in this master's thesis is outlined below. This working definition were coined together with Martin Lackéus based on his researched performed prior to the formation of the research project. The working definition is as followed:

“A Venture Creation Program (VCP) is an Entrepreneurship or business education on higher education level with a pedagogy firmly based on the creation of a real-life venture as their primary learning vessel”

1.4 Contribution

The fundamentals of good research are that it should significantly contribute to knowledge in the research area. This contribution is often meant adding new knowledge to what current is known. The size of the significance and how it contributes to theory differs. Depending on for example if the research is dealing with new area in the research is not previously observed or perhaps even contradicting previous knowledge (Karlsson, 2009).

1.4.1 So what is this master's thesis contribution to the research area?

This master thesis report is the result of a qualitative and explorative research in entrepreneurship education (EE). It serves to support the research program Venture Creation Program that will be conducted during the coming years at Chalmers School of Entrepreneurship, Gothenburg, Sweden. It is one of four partial research projects that will be included in the research program. The contribution to theory and/or practice to the academic world are that it serves to actually give a first description and view of a currently quite unexplored area within entrepreneurship education. The author has chosen to call this area Venture Creation Programs (VCP). This so called VCP will be defined as an EE that includes real-life new venture creation as part of the education.

1.5 Delimitations

No geographical limitations have been set, but there exist a time limitation of the research for new VCP of about three month, and therefore the author has chosen to start the research in Europe and the US.

1.6 Outline of the report

The outline of this master's thesis report is more or less of the standard type, figure 2. The report starts with an introductory – Chapter 1, presenting the background, purpose and aim of this master's thesis. Chapter 2 - presents the method and the research approach used. Chapter 3 - is a compilation of interesting literature handling the research field of entrepreneurship education and hence represent the theoretical framework of this master's thesis. Chapter 4 - presents the empirical study and Chapter 5 - summaries the results in a list of confirmed VCPs. Chapter 6 – discusses the research approach as well as the results. The report is summed up in a Chapter 7 – presenting the conclusion.

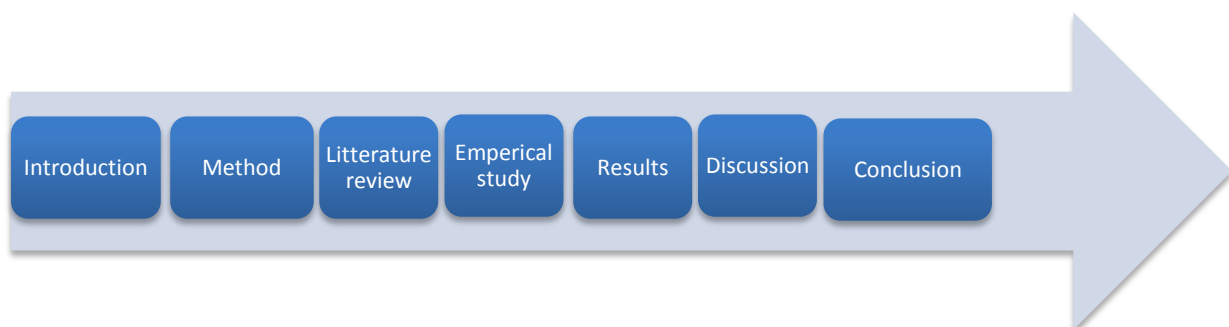


Figure 1.2 Outline of the report

2 Methodology and research design

The research approach and the theory of the research methods used are presented in this chapter.

2.1 A step by step explorative research approach

When doing research it is always good to have a structured plan. In the literature one can find infinite theories about different research methods. Since the purpose is to find and map out possible entrepreneurship educations (EEs) in the world, of a specific kind we call VCPs, we first need to define what we are looking for in order to find it.

We will start by considering what we currently know to represent the type of entrepreneurship education that we want to find. In this case, this is the entrepreneurship educations at Chalmers and Gothenburg University. The working definition of a VCP presented in section 1.3.1 will be used for this purpose.

Phase I consists of a literature review of entrepreneurship education and its foundation to understand its need and importance in society. Phase II is an empirical and explorative study that aims to find other entrepreneurship educations that match the definition and can be added to the VCP population. Phase II therefore involve finding other potential venture creation programs mainly in Europe and US. This study will be conducted by using the knowledge of the members of the research team, previous available research, research using the internet and snowballing. In the phase II the previous research is mainly used to find a starting point to find potential venture creation programs. Later searching internet and snowballing have been the major research methods used.

In this first explorative part in phase II, the approach is to, among others methods use the concept of snowballing (defined in 2.2.1), and map out as many VCPs as possible by contacting people in the entrepreneurship education world and in entrepreneurship networks and organizations. It is predicted that this will create a rippling effect where people hopefully will spread the word about our research so the list will include as many of the world's VCPs as possible.

The research approach can be compared to the “learning by doing” approach, where new discoveries decide the next direction and/or step in the research.

We start by the VCP that the research team knows of today at Chalmers University of Technology, and University of Gothenburg. Through the concept of snowballing and starting with contacts we know of and expand the research from Sweden, to Europe, US and later Asia-Pacific. Another method that will be used is the Web search using Google web searching tool, both to find new potential VCP but also to find and follow up leads. To support the research and make it interactive for external parties that might be interested in the research and contribute a webpage was set up, www.vcplist.com. The webpage is a simple way to spread the information about the research project and announce breakthroughs and new VCP findings.

2.1.1 The concept of snowball sampling

As described in previous section one of the methods that will be used in this explorative research in finding VCP educations is snow sampling, sometimes also referred to as “snowballing”. Snow sampling is a sampling type that goes into the category as a non probability design since respondents are selected for the study. Snowball sampling is commonly used when the sample units are rare or

hard to find. The underlying concept of snowball sampling is the assumption that people with the same attribute or characteristics know each other. (Blair, J. and Czaja, R. 2005)

After having conducted the interviews on the first group of the targeted population the snowball concept comes in. In the end of the interview the respondent is asked for names of people that they know that match into the criteria of the targeted population. According to Blair, J. and Czaja, R. (2005) this kind of nonprobability sampling can be useful for explorative studies, where the purpose maybe not is to estimate characteristics of generalize conclusions of a population, but instead get understand or first impression of new research topic. This align well with this research project where the goal is not to generalize the population of entrepreneurship education but rather in an explorative way try to find and explore a new, by the project team defined, entrepreneurship education that the author have chosen to name Venture creation program.

2.2 The research population and research process

One of the main aims of this master's thesis project is to find VCPs. This means that the objects we are looking for are a specific type of entrepreneurship educations. Therefore all universities with entrepreneurship education could be considered as potential objects of interests. One could therefore think that the main channel and the best way to find VCPs is to locate universities with EE. The problem is that most universities have some kind of entrepreneurship education integrating in their academic education and this study has a relatively short time period. Therefore to narrow down the population and more efficient get to potential objects during the limited time period, three main channels and methods have been chosen to be used in this study to find potential VCPs, see figure below. Knowledge from the research team, Google search for EE, and snowballing sampling through email and interviews.

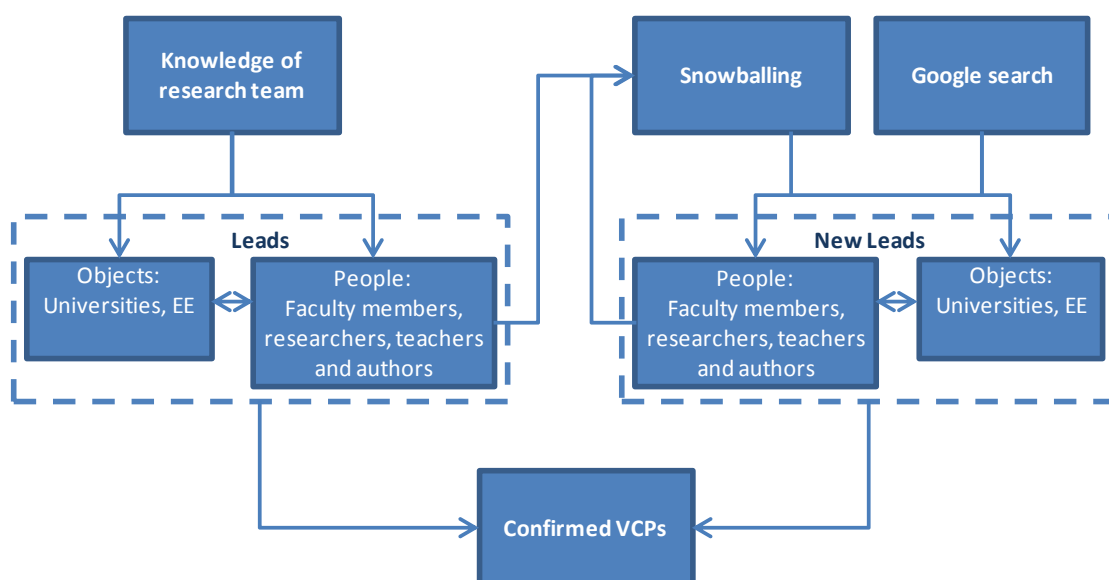


Figure 2.1 The research process

This can be described as explorative research approach where the snowballing and Google search are the main methods to generate new leads. Google search mostly generates large numbers of objects such as Universities with entrepreneurship educations and entrepreneurship programs which takes a long time to process and filter. The research method of snowballing is used to narrow down the leads

more efficient. The methods built on to get in contact with people in the specific research area such as faculty members, researchers, teachers and authors, and let them be a base to find new leads. This might not give as many leads as Google search but they but the leads are already filtered through someone in the research area and the probability that each lead are closer to a potential VCP is bigger. But just as these methods have strengths they also have their weakness hence both are used to complement each other.

2.2.1 Limitations and risks with the chosen research method

As always there exist limitations when conducting research such as, time limitation, geographical limitation, the author's own knowledge and experience about the research area, and manpower. As mentioned in the chapter delimitations, the time frame of this research is less than 3 month, which makes time the the most obvious limitation of the research. Due to the short time frame the explorative research approach including snowballing have been used which is much about chance and timing. If the study had been conducted again by another person and with another research team with a different knowledge the result would most likely be different. Another limitation is the working definition has already been set and is evaluated which excludes other possible definitions that might have result in a different outcome.

3 Theoretical framework

In order to perform this master's thesis research project the author had to gain better knowledge about entrepreneurship and entrepreneurship education, therefore a literature review was performed within the research area. Hence the theoretical framework included in this report can be seen as a review of, by the researcher seen as interesting literature in the research area of entrepreneurship and entrepreneurship education. Further more interesting theories that can act as good foundation for discussion of the research topic are presented. The outline of the theoretical chapter is as follows:

3.1 Introduction to entrepreneurship

- Historical introduction of entrepreneurship
- Entrepreneurship and society

3.2 Entrepreneurship education and learning

- Understanding the concept of entrepreneurship
- What is entrepreneurship education
- Aspects for learning – Conation, affective and cognitive learning
- Traditional learning vs action based learning
- Different ways to educate in entrepreneurship: About, in, for and through

3.3 Venture Creation Programs

- VCP concept clarification
- A real VCP case : Introducing Chalmers School of Entrepreneurship

3.1 Introduction to Entrepreneurship

3.1.1 Historical introduction to entrepreneurship

The importance of entrepreneurs and entrepreneurship as drivers of economic growth, employment and innovation have been known by analysts and economic theoreticians for long (Ahmad and Hoffman, 2007). The concept of entrepreneurs dates back centuries and a well known example can be found in the work of Cantillon¹, the first known academic that explicitly attempt to define and describe the role of entrepreneurs (Ahmad and Hoffman, 2007). This was done in his work, *Essai sur la Nature du Commerce en Général* published already in 1755. Unfortunately it was later neglected and forgotten until it was said to be rediscovered during the 19th century by William Stanley Jevons (Cantillon, 2010)² where Jevons states in his own work that Cantillon's book is the "cradle of political economy" (Jevons, 1881). The core message was that Cantillon saw the government as passive and whiles the entrepreneur was the most central and active participant who motivate the whole economic system (Cantillon, 2010).

What make Cantillon's view around 2.5 centuries ago so interesting is that it has not changed that much until today. In World Economic Forum's (WEF)³ report from 2009 the importance of entrepreneurship for society is highlighted again. Entrepreneurship as they presents it "represents the key driving force for innovation, creating jobs and reactivating the global economy" (WEF, 2009). This shows that the understanding of the importance of entrepreneurs and entrepreneurship have been known to us all the time.

3.1.1.1 Entrepreneurship is becoming more important to the global economy

The global change of the 21th century have change the setting of the global economy and have also given us a lot o new challenges. One of the recent big challenges was the financial crisis and the aftermath of it. In the WEF report (2009) examples of global challenges is stated such as building sustainable development, keep creating new jobs, advancing human welfare and generating renewed economic growth. Not to forget that the entrepreneurship mindset is important for the whole society, it is not just for the people to create new business but also for people in the public sector, large companies and academia.

3.2 Entrepreneurship Education and learning

3.2.1 Understanding the concept of entrepreneurship

So what do we mean when we talk about entrepreneurship? This question has as many answers as definitions and a lot of definitions can be found. This does not mean that there is one right definition and the rest are wrong. In the literature one can find many definitions, the differences between them is usually not that big and the context is more or less the same. The definition of

¹ Richard Cantillon (1680s – 1734) was an Irish-French economist, business man and banker.

² Write the editors Chantal Saucier and Mark Thornton in the introduction to the edited and new version of Cantillo's book first published in 1755.

³ The World Economic Forum is an independent international organization committed to improving the state of the world by engaging business, political, academic and other leaders of society to shape global, regional and industry agendas.
<http://www.weforum.org/>

entrepreneurship that will be used in this report is the one coined by the Harvard professor Stevenson (1983):

“The pursuit of opportunity beyond the resources you currently control”

This short and concise definition helps us understand the meaning of entrepreneurship but it does not say anything how we teach entrepreneurship. Alain Fayolle (2009) used, in his presentation of trends and challenges in European Entrepreneurship education, a quite broad definition for entrepreneurship education:

“All activities aiming to foster entrepreneurial mindsets, attitudes and skills and covering a range of aspects such as idea generation, start-up, growth and innovation”

What is interesting with his definition is that it highlights many things that sometimes are forgotten about entrepreneurship and helps us understand what entrepreneurship education is about. Entrepreneurship is about mindset, attitude and skill it is not about genetically heritage. This is view is not new and was discussed during the 80th among others by Drucker (1985) where he stated:

“Most of what you hear about entrepreneurship is all wrong. It’s not magic; it’s not mysterious; and it has nothing to do with genes. It’s a discipline and, like any discipline, it can be learned.”

This view is also supported by Gibb (1998) that has been active in the research field of entrepreneurship education for years. In order to educate the future entrepreneurs and know what modifications and changes that have to be done to the educational system, the concept of entrepreneurship have to be understood. According to Gibb (1998) it is the behavior associated with entrepreneurship that is the important when you look in the educational context. On the individual level entrepreneurship is about behavior, how individuals think. Entrepreneurial behaviors are according to Gibb (1998): grasping opportunity, taking initiative, solving problems creatively, managing autonomously; taking responsibility for, and ownership of things. He further argues that it includes seeing things through, networking effectively to manage interdependence, putting things together creatively, and using judgment to take calculated risk. Gibb further explains that behind the entrepreneurial behaviors lies entrepreneurial attributes and skills (see figure below.).

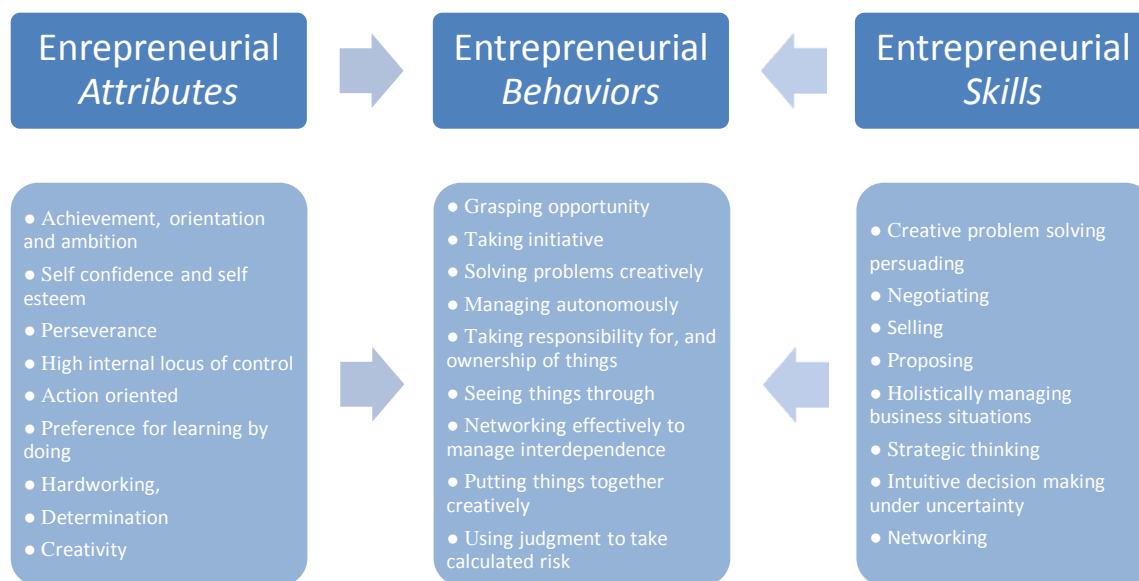


Figure 3.1 Gibbs' (1998) view when he clarifies entrepreneurship on individual level.

According to Gibb (1998) these entrepreneurial attributes are: achievement orientation and ambition, self confidence and self esteem, perseverance, high internal locus of control, action oriented, preference for learning by doing, hardworking, determination, and creativity. These attributes, even though some people have more of these qualities by nature, can according to Gibb be developed. Besides the entrepreneurial attributes Gibb presents the entrepreneurial skills: creative problem solving, persuading, negotiating, selling, proposing, holistically managing business situations, strategic thinking, intuitive decision making under uncertainty, and networking. These skills are tied to the entrepreneurial attributes and together they support the development of the entrepreneurial behaviors. The interesting fundamental idea that Gibb (1998) presents is that all of this can be learned and therefore entrepreneurship education becomes so important. Entrepreneurship education can make the students of tomorrow entrepreneurial, which in turn will result in a more entrepreneur oriented society, which according to Gibb is a necessity to cope with the changing world.

This further shows the importance of entrepreneurship education. Since we already know that the entrepreneurs and entrepreneurship is important for the society and economic growth and the importance grows even stronger as our world becomes even more complex and so also the challenges we face. One important way to ensure that we today keep developing the entrepreneurship mindset in society in order to face the challenges of tomorrow is by entrepreneurship education. As it is stated in WEF (2009) report of the global education initiative:

“Entrepreneurship education is critical for developing entrepreneurial skills, attitudes and behaviors that are the basis for economic growth.” WEF 2009

3.2.2 What is the right education philosophy for Entrepreneurship education?

The perception of entrepreneurship has changed during last decades and has become more accepted and popular at universities. According to the recent report from WEF (2009) the number of entrepreneurship education is now expanding exponentially. Still the understanding that

entrepreneurship education may need to have a less traditional learning approach has to increase at higher education institutes.

According to Ardalan (2008) universities have underlying philosophies of education that they act upon. Education content, course goals, and pedagogical methodologies used are all based on philosophical assumptions (Ardalan, 2008). This leads to many interesting questions, is the philosophic foundation of which the universities of today build their pedagogic approach up to date with our changing world, and is it suitable for entrepreneurship education? This kind of questions is discussed by Taatila (2010) where he compares the realistic vs. pragmatic philosophy of education. According to him the pragmatic philosophy is one the best serves entrepreneurship educations. Even if the discussion is about two extremes realism vs. pragmatism as foundation as pedagogical approach the discussion has a greater depth since it highlights the importance of understanding how the universities best can support the entrepreneurship education. According to Taatila (2010) the realism-based and the pragmatic universities represents two different learning environments. The realism focuses on teaching the students facts and enough knowledge so they can understand the world surrounding them, whiles the pragmatic focuses on that the students themselves gather the information, analyze it and act up on it (Taatile, 2010). Ardalan (2008) simplifies this and says that realism is just about teaching whiles pragmatism is also about guiding and mentoring. In turn this affects the goals of the two learning approaches where the realism approach is that the student should learn something and be able to give it back whiles pragmatism is about letting the student get their own understanding and act on them (Taatile2010; Ardalan 2008). This background gives the understanding that entrepreneurship education can be a complex matter for realism-based universities. Entrepreneurship is not just a subject it is also about a way of teaching. The entrepreneurship education need for a more pragmatic education approach this also create the demand from the universities to be able to change the often more conservative foundation that their education philosophy is based upon. They universities have to be open, allow and give room for entrepreneurship education, by creating awareness about the need of entrepreneurship pedagogy and keep on promoting the importance of entrepreneurship education. That this still is an issue today could be exemplified by that the World Economic Forum report (2009) discussing capabilities to meet the global challenges of the 21st Century stated one of the most important goals to be:

“Our goal is to raise awareness about the importance of entrepreneurship education for developing the skills to solve global challenges, increase understanding about current approaches, build acceptance of entrepreneurship’s rightful role in education and provide a platform for action to take the necessary next steps for mainstreaming entrepreneurship in education.”

This quote shows that EE is much more than just education. The role EE has is much bigger, it serves as a major building block for worldwide economic growth.

3.2.3 Aspects for learning –Conation, affective and cognitive the three components of the mind

We know that entrepreneurship can be taught, and this section is a further step to understand how it can be done. In order to understand the right ways of teaching it is important to understand how we learn. Psychology has traditionally identified and studied three components of the mind: cognition, affect and conation (Huitt, 1999). The conative, cognitive and affective learning domains are the

heart of a successful constructive learning environment, which should include all the three learning domains (Jonassen et al., 1999):

- Conative domains: what a person wants and desires
- Cognitive domains: what a person rationally thinks
- Affective domains: what a person feels

3.2.3.1 Motivation and conation

According to Dörnyei (2001), motivation is just an abstract, hypothetical concept that we use to explain why people think and behave as they do. Dörnyei (2001) continues and describe that the meaning of “motivation” can be quite vague but the reason that the term still is commonly used is to refer to a rather complex issue. Dörnyei (2001) means that the term is useful because it is related to one of the most basic aspects of the human mind. This aspect is related to what one wants and desires, describing the conative domain (Dörnyei, 2001). Hence talking about motivation we can refer to the conation functions of the mind.

In the article “Conation as an important factor of mind”, Huitt (1999) mentions many interesting thoughts and interpret many other practitioners and researcher of the subject. In order to understand behavior it is not enough to look into cognition and attitudes one also has to under the concept of conation. Huitt (1999) presents from Barell (1995) that helping students to develop the conative attitudes and skills related to self-direction and personal efficacy is the most critical tasks for both educators and parents. According to Huitt (1999) conation refers to the intentional and personal motivation of behavior. Huitt (1999) discusses and presents how conation relates to three aspects of motivation: direction, energizing and persistence. E.g direction is includes setting your own goals. But dreams and goals must have visual and emotional components in order to be effective (Epstein, 1990). Huitt (1999) summaries by saying that in today’s society, youth will the conative skills if they are to be successful as adults. Furthermore educators must try to fit in activities so that students can develop these attitudes and skill.

3.2.3.2 Conative, affective and cognitive in entrepreneurial learning and teaching

Gibb (2005) is another author that emphasizes the importance of conative and affective development. He points out that the focus of university learning approaches is often on cognitive development that focuses on how one receive knowledge, recognition and remembering. But the success to entrepreneurial teaching lies in conative and affective aspects of teaching (Gibb 2005; Ruothie and Karanen, 2000). Affective development relates to how the student feelings about a subject, whiles conative development is about making sense about something related to motivation (Gibb, 2005). According to Gibb (2005) the focus at universities is more about knowledge content whiles teaching methods comes in second hand. There seems to be no connection between the teaching methods and development of entrepreneurial behaviors, attributes and skills, as presented in section 3.2.1 *Understanding the concept of Entrepreneurship*. Gibb (2005) believes that an explanation to this is that universities not focus on personal development but rather teaching and testing knowledge, and he further thinks that entrepreneurship education need to address this problem. What we will

Kyrö (2008) professor of entrepreneurship education opinion is that the research within entrepreneurship education have developed in the direction of more focus on the process of learning

and teaching instead of previous focus on education content. As well Kyrö (2008) emphasizes just like Gibb (2005) that looking into the field of cognition is not enough but it is of great importance to include affection and conation in entrepreneurship education. Kyrö (2008) further believes that it is important to support the students' have own action and goals. This can be compared to the learning by doing approach.

Kyrö (2008) presents an interesting definition for entrepreneurship in her paper by quoting Korainen (1999) where entrepreneurship is neither a profession nor a career but a cognitive, affective, and conative process intended to increase value through creation, revitalization and or growth.

3.2.4 Traditional learning vs action based learning

This chapter is a further introduction between the more action based learning entrepreneurship approach vs traditional learning. This section will answer the questions such as what is action based learning? What is its purpose?

3.2.4.1 About action based education

Entrepreneurship education have traditionally focused on teaching student about entrepreneurship, but the trend is that more education becomes more action oriented where learning by doing is the philosophy. In the Rasmussen (2006) paper this action oriented approach is illustrated by presenting a number of action based activities from case studies done at five Swedish universities.

The entrepreneurship educations studied in Rasmussen (2006) focuses on action based learning by doing activities rather than teaching students in a traditional classroom settings. Hence moving away from the traditional classroom setting, whiles this action based approach includes working in a group and a network setting.

3.2.4.1.1 Universities takes a new role in society with entrepreneurship education

A lot of the discussion today is about that need to focus on R&D, seed and venture capital to generate new economic growth. According to Rasmussen(2006) this is not enough and the effect of doing it will not be great without committed persons with the right skills to develop and manage new ventures and other new business activity within firms. This have lead to that the universities are expected to take a new role in the society. No longer just being a research organ and teaching students but also a new role as an economic developer. This can be seen as the universities' third mission (Etzkowitz et al., 2000). That is to say universities can contribute to entrepreneurship indirectly through educating students to become entrepreneurs and directly by commercialization of research conducted at the university.

Supporting this theory is that it is found that graduates that have had a major in entrepreneurship have stronger entrepreneurial intention and more often start new business than other graduates (Kolvereid and Moen,1997).

According to Rasmussen (2006) the number of institutions with a focus in the area of entrepreneurship and the recourses that is put into in entrepreneurship education programs has grown. But at the same there seems to be a lack when it comes to common framework and best how to educate entrepreneurs. Rasmussen (2006) further argues that entrepreneurship education can be looked upon in two different ways it is either learning about entrepreneurship in a more theoretical way or learning useful skills in order to become an entrepreneur.

Rasmussen (2006) further focus on how universities can educate successful entrepreneurs. He discusses three basic activities that will help building a successful base for stimulating entrepreneurship at universities. Rasmussen referring to Klofsten (2000) and presents three activities:

- Activities to create and maintain an enterprising culture, serving as an integrated part of all courses and research.
- Offering separate courses in entrepreneurship to students.
- Specific training programs for student that want to start their own business.

But Rasmussen (2006) believes that creating an enterprising culture is difficult, and instead in his study focus is on activities aiming at training graduate to become future entrepreneurs or improving entrepreneurial skills of existing entrepreneurs. Rasmussen(2006) mean that it is a need for an action-oriented approach in entrepreneurship education. In order to focus learning by doing there is a need of greater student involvement education. This could be done by letting students get involved in everything from working in real business and involving them in real start-ups, to letting the students start their own business. Rasmussen(2006) further explains that the just as the degree of student involvement is important so is also the nature of the opportunity or the business idea. Presenting different levels of business opportunity, it can range from practical exercises to real business project, and even to high potential global business ideas. Rasmussen(2006) put these measurements, the degree of student involvement and the opportunity or business idea potential into a matrix (see figure below). Rasmussen (2006) further use this tool in his study comparing how the universities implement the learning by doing approach, but also the scope and the potential of the business projects the students work with.

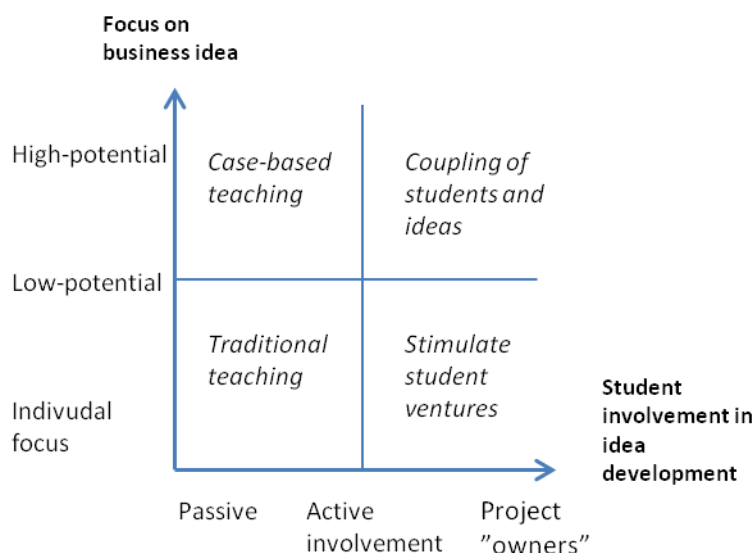


Figure 3.2 Rasmussen's (2006) matrix to evaluate entrepreneurship education

This way of categorizing action-based entrepreneurship programs is a good way to understand how they differ from a traditional theoretical oriented entrepreneurship programs. It takes much more

than just having research that might results in ideas to help universities mission of technology transfer by commercializing research based ideas and action-based entrepreneurship educations could be a very important as a tool for this process. Rasmussen (2006) believes that entrepreneurial students are in good position to take on business opportunities from research-based ideas in cooperation with the inventors. Opportunities that otherwise maybe would have been mist since researcher many times don't want to become entrepreneurs them self and hence many research based ideas never get to be commercialized. The strategy to let students cooperates with inventors to commercial their research based ideas are represented in the upper right quadrant in the figure above.

The overall take away from the Rasmussen (2006) study of several universities is that action-based ee can be accomplished in many different ways, and factors such the universities goal with these educations and how they support these educations as well as the general entrepreneurial environment and setting in the region of the university.

3.2.5 Different entrepreneurship educations objectives: Educating for, about, in and through

Just as Rasmussen (2006) found out from his study, action-based entrepreneurship education can be taught in many ways. Mwasalwiba (2010) at Amsterdam University have done a study where he looks into more than 100 publications devoted to entrepreneurship education. In his framework for his review he looks in the perspectives of :

- the entrepreneurship educations generic objectives
- target audience
- teaching methods
- and evaluation and impact indicators.

As a result of this study he suggests that you can group entrepreneurship educations in respect of their focus and objectives in means of educating individuals: for, about or in entrepreneurship. Mwasalwiba (2010) describes these different educations objectives as follows:

Educating for entrepreneurship: means that the objective for the entrepreneurship educations is to create an entrepreneur, that further means an individual that is destined to start a new venture. Among other things providing them with tools to starting a new venture.

Educating about entrepreneurship: is about that the individuals learn and understanding about entrepreneurship as phenomena.

Educating in entrepreneurship: is described as an approach where individuals are trained in entrepreneurship, with the goal to make individuals more entrepreneurial e.g. in their existing firm or line of work.

Another term that Mwasalwiba (2010) have met in his review is educating "through" entrepreneurship. Described as educators use, among other things, new business creation in the teaching to give the students understanding and skills in this area. A more learning by doing approach and Mwasalwiba states that it could be seen as a teaching approach in the category of

educating “for” entrepreneurship. Mwasalwiba further states that educating for is more or less an objective including the aims of educating about and educating in entrepreneurship.

According to Mwasalwiba a lot of the focus for evaluations of entrepreneurship educations has been directed to creating new businesses as an objective and as a way to measure success, this is not the objective for all learners of entrepreneurship educations, not all students of this kind of entrepreneurship programs intends to start their own business. Therefore Mwasalwiba suggest the categorization for, about and in. But still there are many types of teaching methods within these groups. Mwasalwiba (2010) further states that whatever the learners’ objective is learning for, about or in entrepreneurship the objectives and type of learners have to be match with the course content and the teaching methods.

Mwasalwiba (2010) also looks in the perspective of type of programs and target audience in is literature review. Finding out that another author Kirby (2004) after had reviewed over 200 entrepreneurship programs found at that these could be divided into three different group according to their main focus:

1. Programs with focus to give an orientation and awareness about entrepreneurship.
2. Programs with focus to develop competences for future new business creation, self-employment
3. Programs that focus on small business survival and growth

Mwasalwiba (2010) further highlights that these three different focuses that entrepreneurship programs seems to have are consistent with educational objectives of educating for, about and in entrepreneurship.

Further findings of Mwasalwiba’s (2010) study is that it is a common belief that students that intended to start their own companies, need a more action-based teaching method, but as the same time other authors have emphasize that is would not be wise take away the theory-based teaching completely. In his paper he further states that recent scholars in the entrepreneurship education area seem to agree that entrepreneurship can be taught. According to his studies it has been a shift from the earlier focus on personal qualities and new venture creation to behavioral or cognitive type of entrepreneurship. With the more general understanding that entrepreneurship can be taught, more focus have to be how to enable students to acquire attributes, behaviors and skills that have characterized by successful entrepreneurs.

Mwasalwiba 20120 concludes that one of his general opinions of his review is that is has been significant progress in entrepreneurship education. Supporting this progress is that the field is moving towards a common conceptual understanding and approach and agreement on educational objectives, teaching methods.

3.3 Venture Creation Programs

Until now Chapter 3 theoretical framework has given an introduction to entrepreneurship both in terms of definition and historical background. Furthermore the chapter has introduced: the concept of entrepreneurship education, giving example of suitable teaching philosophies for entrepreneurship educations, presented the theory of traditional learning versus action based

learning, introduced and explained some different entrepreneurship education objectives and how these can affect the choice of how to teach entrepreneurship. From this the more general background of entrepreneurship and entrepreneurship education this subchapter will narrow down and be about a specific type of entrepreneurship education that was introduced in the beginning of this report called venture creation programs.

3.3.1 VCP concept clarification

“Venture creation programs” in this master thesis is the term for a certain kind of entrepreneurship education involving among other things real venture creation. In the introductory chapter of this master thesis the working definition for such a program was presented as:

“A Venture Creation Program (VCP) is an entrepreneurship or business education on higher education level with a pedagogy firmly based on the creation of a real-life venture as their primary learning vessel”

This working definition was coined together with Martin Lackéus and based on his research and experience. One of the main source of inspiration for the concept creation of venture creation program have been the entrepreneurship education Chalmers School of Entrepreneurship (CSE) and Gothenburg International Bioscience Business School (GIBBS), given at Chalmers University of Technology and the University of Gothenburg, both of them considered to be the role models of a typical VCP and also the main source for creating the definition.

3.3.2 Chalmers School of Entrepreneurship (CSE) – A case example of a VCP

To further more describe or demonstrate how the concept of a VCP can turn out in reality, this subchapter will briefly present Chalmers School of Entrepreneurship, an entrepreneurship education program that coincide with the working definition of a VCP and is this master thesis reference of a real VCP.

3.3.2.1 History and purpose of CSE

Conventionally entrepreneurship education have been more theoretical oriented, where the teaching approach have been learning by reading. The VCP program Chalmers School of Entrepreneurship is based on a special learning by doing approach, where a tacit knowledge approach is emphasized through real creation of new companies through business plans and venture creation curricula (Hedner et al., 2010).

CSE was formally launched in 1997, the work of creating the programs started in an effort to create a master program that would make it possible for technology inventors with ideas to partner up with entrepreneurial students (Hedner et al., 2010). The background was that individuals at Chalmers University of Technology had identified opportunity that by launching such a program one might be able to stimulate the entrepreneurship in the region and bridging the gap between inventors with ideas and the market place (Ollila and Williams-Middleton, 2011). It was not just about commercializing ideas but it was quite evident that most entrepreneurship education at the time were teaching about entrepreneurship instead of really developing entrepreneurs.

CSE is not just a Master’s education but also a pre-incubator, that was added in 2001 to support both the development of entrepreneurs as well as the creation of new ventures (Hedner et al., 2010; Ollila and Williams-Middleton, 2011).

3.3.2.2 The venture creation-/learning by doing approach at CSE

Hedner et al. (2010) state that the mission of the education was to develop entrepreneurs both on the theoretical and conceptual level and simultaneously develop a tacit platform with real-life creation of technology ventures. The focus in the pedagogy already from the start was on venture creation and develop entrepreneurs by learning by doing rather than teaching entrepreneurship on the theoretical level (Hedner et al., 2010).

Hedner et al., (2010) summarize the teaching approach as a pedagogic approach that:

1. Emphasizing “theoretical teaching in combination with tacit learning”.
2. Emphasizing a “traditional on campus innovation and entrepreneurship curricula that is combined with real life venture creation training”.
3. “Is built on an integrated venture creation tacit and narrative platform” in order to give the students tools that can be used in real life business start-up

The figure below, from Hedner et al. (2010), shows how use a dynamic teaching approach that combines theoretical teaching and “learning by doing” during the two years long VCP given at CSE.

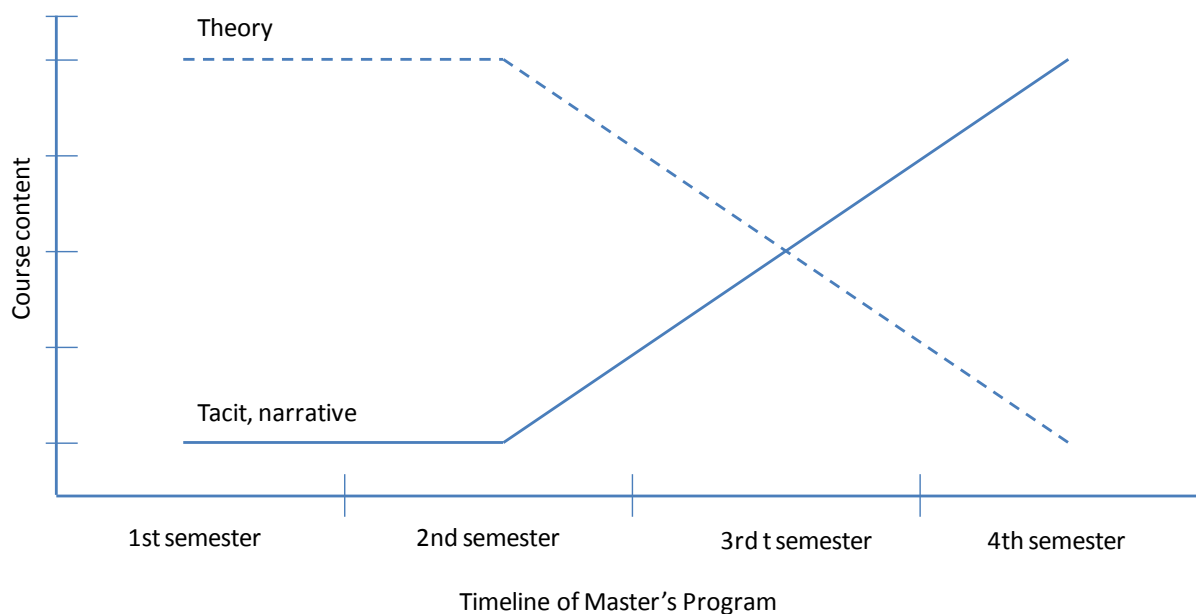


Figure 3.3 Part of course content that are taught through a theoretical teaching approach respective through a learning by doing approach over time, Hedner et al. (2010).

3.3.3 Prerequisites for a VCP

The creation and development of a VCP at a university demands a lot of resources and can be a complex process. Hedner et al. (2010) emphasize a couple of factors that can be crucial for a successful implementation.

- Building a new organizational ecosystem
- Find teacher with the right competence
- Planning and training for strong future teacher and research staff.
- Attract a enough financial resources

- Right coordination and implementation team
- A good balance of course content as well as teaching approaches
- Implementations of quality control and quality assurance
- Support from the university

Building a new organizational ecosystem is often needed in order to implement an innovation and entrepreneurship culture in the current university setting. This new ecosystem can be difficult to understand and accept for teachers used to the more traditional academic setting.

Another issue is that it can be hard to find the faculty members with the right competence. It would be more or less a necessity to attract competence outside the university setting from e.g. the regional business region. Furthermore planning and training for a strong future teacher and research staff is important to secure a strong and robust platform for the VCP.

Furthermore a strong financial base is needed to develop a VCP, therefore there is a need to create an innovative educational concept in order to attract enough financial resources.

The implementation and the creation of a innovation and entrepreneurship curriculum will require a strong coordination team with the right competence. This will be of extra importance in order to succeed and to better handle problems that can occur at this kind of cross institutional projects that will include many different faculty people from diverse academic disciplines (Hedner et al., 2010)

One of the crucial parts is to balance the courses focusing on entrepreneurship and those focusing on innovation. Furthermore finding the balance in the course content between theoretical and, tacit and narrative learning (Hedner et al., 2010).

Hedner et al., (2010) emphasize the importance of implementing quality control and quality assurance in teaching and learning units, in order of among other important task to understand and identify factors of educational success likewise identify factors that have a negative impact.

Creation of a VCP is demanding and for all the situation above the support from the university is of great importance and crucial for a successful implementation.

4 Empirical study

As presented in the introduction and in the background the aim of this first phase in the research project is to other EE than the once we already know that match the VCP education concept. In order to compile this study the author has used an explorative research approach, as presented in the methodology chapter. This explorative study have been done using three main channels: contacting leads through the research team's knowledge about the research area; Google search mainly to find new potential VCP; and snowballing when in contact with leads and persons within the research area. The methods for the communication have been emailing with emphasize on snowballing but also mass email to an entrepreneurship network and thirdly the telephone interviews which have been important for confirm that an education actually was a VCP and also the most effective way for snowball sampling.

4.1 Data collection

In this methods used to collect data is described more in depth. One question the researcher asks himself is in the beginning of this explorative study is where to start. In the initial phase of the research project a literature pre-study have been performed by the researchers. From personal experience in the area and the initial literature study some initial persons was decided to contact.

4.1.1 Emailing

During the research emailing has been a very useful tool for communication. Emailing has been used in three main ways. First, with the snowballing approach new leads are generated along the research and the best way to do the initial contact to a new contact is to send an introduction email. Secondly, emailing has been used to maintain the contact to established contacts, for example follow-up emails, updates about the research project etc. Thirdly, emailing was used to perform a semi-structured survey.

4.1.1.1 Using emailing for initial contact with new leads

The concept of snowballing is to use the investigated population, in this case entrepreneurship educators and other persons involved in entrepreneurship education and using the targeted initial population to find new contacts that could be fitted into the characteristics of the population set up by the researcher. It was proven that it had a positive effect if it was mentioned in the in the initial email to a new contact, from whom the researcher got the contact information e.g:

"Dear Mr [REDACTED],

*I was given your contact information from Mr [REDACTED] (CC'ed), Programme Director [REDACTED]
[REDACTED] at University of [REDACTED]."*

Also in the in the initial email the researcher and the research project was introduced. A link to the research project webpage was also included. An example of introduction email can be found in the appendix B.

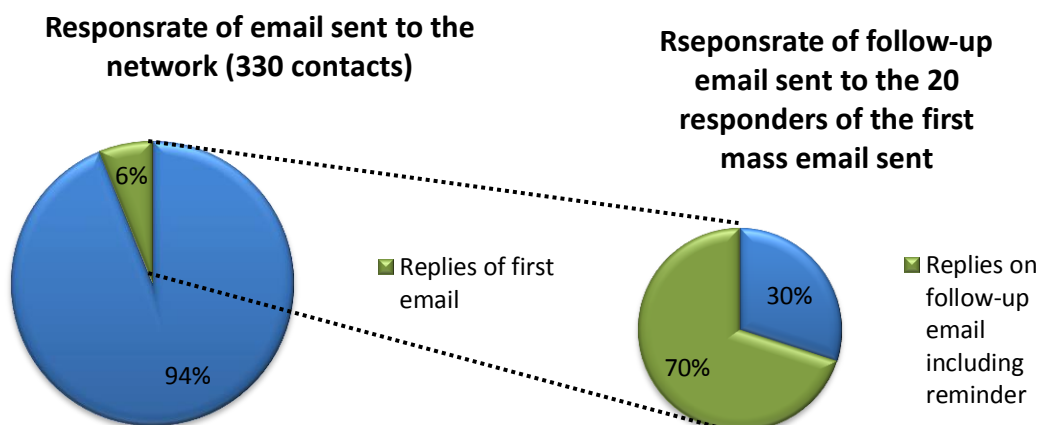
4.1.1.2 Email survey by emailing a entrepreneurship education network

As described earlier email as a communication channel was used in three main ways. In this sub-chapter the results is presented of the a semi-structured email survey. The targeted population of the email survey was 330 collaborators of an Entrepreneurship Education Network. The network is the results of research project into entrepreneurship education performed by Dr. Doan Winkel at Illinois State University in the US. The author got to know about Dr. Winkel's research after an interview with Professor Nigel Adams at University of Buckingham. The lead was a result of the snowballing sampling method. After an interview with Dr. Winkel and discovery of both parties mutual interest in the field of entrepreneurship education, it was decided that Dr. Winkel would let the author to use the Entrepreneurship Education Network for the mass email survey. A list of all collaborators in Dr. Winkel's Entrepreneurship Education Network could be found in Appendix C. The collaborators are contact persons at Universities that offers some kind of entrepreneurship education e.g. courses, minor or major, undergraduate or graduate programs.

<u>Emails</u>	<u>Number of emails</u>	<u>Response rate (%)</u>
Emails sent to Dr Winkel's EE Network	330	
Replies on first email	20	6,1
Follow up emails sent	20	
Replies on follow up email	12	60,0
Reminders sent:	8	
Replies on Reminder	2	25,0
Non replies on follow-up email or reminder of follow-up email	6	
Replies on follow-up email including reminder	14	70

Table 4.1 Number of emails sent and response rates

The number of person that replied to the firs email sent to the network was 20, which equals around 6 percent of the population of 330 contacts persons. The templates of both the first email and the follow up email could be found in appendix C.2 and appendix C.3.



4.1.1.3 Results from Email survey

Unfortunately no new VCP was found or confirmed through the mass email research. One already confirmed VCP was mentioned again, found at University of Oklahoma. In appendix A.1 you can find a more detailed presentation of the findings from the 14 email responses from the mass email survey.

4.1.2 Telephone Interviews as a research tool

The telephone interviews can be said to have two main purposes. Since the explorative study is done during a very restricted time period the snow balling concept is of great importance. In the method chapter the concept of snow balling sampling is explained more in depth, but to summarize it lies on the foundation that one believe that an individual that possess certain qualities, have certain, behavior, profession or knowledge in an area, the certain characteristics set up by the researcher, most commonly know someone else that also match in to the investigated population. If we think about it, it is not that unlikely that for example a very talented doctor in specialized field of medicine knows of other doctors working in the same field. It is actually quite likely that during the doctors career that he or she have come across other names of doctors in the same area while reading articles, branch magazines, literature, or even met other specialized at seminars, medicine event etc. This way of thinking is the foundation of the snowballing concept.

Presented in this chapter is a selection of the most interesting telephone interviews.

4.1.2.1 Telephone interview with Matt Smith at NACUE, UK

The first person to be contacted and interviewed in this research was Matt Smith, enterprise education and policy consultant at NACUE⁴ (National Consortium of University Entrepreneurs). The National Consortium of University Entrepreneurs is a national organisation that supports and represents university enterprise societies and student entrepreneurs to drive the growth of entrepreneurship across the UK. Thereby the explorative study started in the UK. Since the NACUE have good knowledge of entrepreneurship educations in several hot leads were given. Among the universities that we got a tip about was: University of Buckingham, University of Huddersfield, Coventry University and University of Strathclyde in Scotland. I was later confirmed that all these four universities had entrepreneurship educations and that two of them had entrepreneurship educations programs the qualified in to be VCP. Besides tip about universities Matt Smith introduced the author to entrepreneurship educators at three of the universities previous mentioned by using email.

4.1.2.2 Phone interview Nigel Adams, University of Buckingham

Further research was conducted about the University of Buckingham. An entrepreneurship education with the potential of qualifying as a VCP was found. The contact given by Matt Smith was used. The phone interview with Nigel Adams confirmed that the university offered a VCP, BSc Business Enterprise, and at the same time according to follow the snowballing method Nigel Adams was also asked about other similar educations and other key people that may have knowledge in the area.

⁴ More information about NACUE can be found on their webpage: www.nacue.com

Just like Matt Smith, Nigel Adams gave the tip about an entrepreneurship education program at University of Huddersfield, and the professor of Entrepreneurship John Thompson.

4.1.2.2.1 Venture Creation Program BSc Business Enterprise

The program director of the VCP is the interviewee Nigel Adams. The VCP is a 3 years B.Sc. degree program that has been compressed into 2 years. The program was founded in 2006 with relatively small cohorts of but never less than 8 students. Since the start the VCP started in yearly basis and the program except students abroad which according to Adams have resulted in an average mix of 60 percent international student. It is a good spread of the national background of the foreign and Adams mentioned students come from e.g. India, Austria, Japan and Nigeria. It is a formal part of the curriculum for the students to start a venture where the ideas come from the student themselves. The student becomes owner of the projects but the ownership has been different during the last years where the projects first were formed as limited liability companies. The students usually work in team of two but as much as 50 percent of the project is driven by a student alone. If the students choose to work in team they the team is put together by the students themselves. Office facilities and telephone are provided to the student in, incubation like environment that, called Buckingham knowledge hub. The student can receive funding by pitching their idea to jury who will decide the amount. According to Adams they project can receive up to 5000 pounds, normal is around 1000-4500 pounds. After graduation some students continue their businesses but until today the number have not been big and there is no good example of very successful business so far. The project or business does not usually continue without the student which mean that if the students do not which to continue after graduation with their business it is most often terminated.

4.1.2.3 Phone interview with John Thompson, University of Huddersfield

By using the concept of snowball sampling the University of Huddersfield and Professor was given as leads both by Matt Smith and Nigel Adams. After an interview one of the entrepreneurship educator, Professor John Thompson it could be confirmed that the University of Huddersfield offers a VCP. Using the concept of snowballing Thompson gave a lead on entrepreneurship education at the University of Strathclyde, which after research have entrepreneurship education but the this is given in a course and not a program furthermore the course is about venture evaluation rather than starting a real venture and therefore it does not qualify as a VCP. Another tip that Thompson gave was the MSc New Venture Creation at Queen's University Management School in Belfast. The one year full-time program is based around business-focused modules which, with the provision of expert mentoring, directly support the creation of new ventures with significant growth potential. This could have been a VCP but according to Thompson this MSc New Venture Creation, that started 2009 just lasted for one year, the most likely explanation for this is that the program was sponsored by external funding and there was not enough funding to run the program another year. Unfortunately after further research on the Universities' webpage it seems like what it can be confirmed what Thompson said.

4.1.2.3.1 Venture Creation Program, Enterprise Development, at University of Huddersfield

The VCP Enterprise Development is provided by the business school of University of Huddersfield. The three years B.A. VCP was founded in September 2009 and is the second newest among the confirmed VCP in this research project. The number of accepted students to the program has increased from 12 students 2009, 13 students 2010 and now the number of spots for 2011 are 30.

Since the legal requirement demands that the students have to be able to start a business in the UK, this limits which foreign student that can apply. Until today the cohorts have consisted only by UK students. Starting a venture is a formal part of the curriculum and this is done after 18 month from start during the students' second year. The business ideas come from the students themselves and the students becomes owner from the start. It is most common that the students work alone with the project. Office space and telephone are provided by the university, the students also have a mentor during the project. When it comes to funding Thompson explains that there is a venture fund and also external business angels where the students can apply for funding. The amount of funding is not fixed differ between the projects. Since the first class has not graduated yet questions about what will happen after graduation are yet to be answered, and it will be interesting to follow up and see the result.

4.1.2.4 Phone interview Dr. Doan E. Winkel, Illinois State University

After the interview with Nigel Adams, Programme Director B.Sc. Business Enterprise at University of Buckingham, I got the contact information to Dr. Doan E. Winkel who According to Mr. Adams performs research into entrepreneurship education.

Dr. Winkel is assistant Professor of Entrepreneurship at Illinois State University. Besides that his work includes research in the field of entrepreneurship education, Dr. Winkel together with a colleague are running "The Entrepreneurship Education Project". A project where they have set up a big network of universities that offers some kind of entrepreneurship education. By permission of the network manager Dr. Winkel, a mass email was sent to the contacts at the around 330 universities that is connected to the network. The procedure of this mass email survey is outlined in chapter 4.1.1.3 *Email survey by emailing a entrepreneurship education network*. Like many other universities Illinois State University also offers courses in entrepreneurship education but does not have a program that is about real-venture creation. Dr. Winkel showed great interested in the VCP concept and said that it was something that he would like to implement at Illinois State University. But since the number of entrepreneurship educators are limited and so also the recourses this would be a plan for the future. The mutual interested between the researcher of this research project and the research Dr. Winkel is performing have lead to a good relation between the parties have been established.

4.1.3 Internet search using Google search engine

The internet search is both method used to follow up on leads on potential universities and entrepreneurship educations that can be of VCP character the internet search is at the same time one of the strongest tools to use when trying to find new potential objects. A first approach of this was to investigate how common different terms was used a such list could be found I in appendix A.2.

4.2 The VCP confirmation process

In this section are the methods used to confirm an entrepreneurship education as a VCP outlined. Either if the researcher receive lead of a possible VCP or by using web search find an entrepreneurship education that at first glance seems like a good candidate of a VCP the education have to be confirmed that is actually matches the criteria of a VCP.

The working definition of a VCP used and introduced earlier in this report is as follow:

“A Venture Creation Program (VCP) is an Entrepreneurship or business education on a higher education level with a pedagogy firmly based on the creation of a real-life venture as their primary learning vessel”

The definition can be broken down to sub-criteria’s:

1. Type education: “Entrepreneurship or business education...”
2. The level of the education. “...on a higher education level...”
3. *“with a pedagogy firmly based on the creation of a real-life venture as their primary learning vessel”*: This part highlights that the creation of real-life venture is the focus of the education both in terms of primary learning vessel and the base of the pedagogically approach.
4. *“creation of a real-life venture”* : it is not just about learning about real-life creation but actually starting a real business in a learning by doing approach with the aim to continue after the VCP.

4.2.1 Confirmation methods

Four different methods or a combination of them have been used to confirm an education as a VCP. These are:

- Using the information on the program homepage.
- Email communication with a contact person at the possible VCP education.
- Interview with one of the educators of the program.
- Researcher own knowledge about the entrepreneurship education.

Presented in the table below is the confirmation method for each of the confirmed VCP

Country	University	VCP Program	First heard about the VCP	Confirmation method used
Sweden	Chalmers University of Technology	Chalmers School of Entrepreneurship	Knowledge of research team	Knowledge of research team
Sweden	Chalmers and University of Gothenburg	Göteborg International Bioscience Business School	Knowledge of research team	Knowledge of research team
Sweden	University of Gothenburg	The Entrepreneurship Track	Knowledge of research team	Knowledge of research team
Norway	University of Tromsø	Business Creation and Entrepreneurship	Google search	Emailing with educator at VCP and webpage, Knowledge of research team
UK	University of Huddersfield	Enterprise Development	Snowball sampling	Interview with educator
UK	University of Buckingham	Business Enterprise	Snowball sampling	Interview with educator
USA	College of Business at Colorado State University	Global Social and Sustainable Enterprise	Google search	Emailing with educator at VCP and webpage

Sweden	Lund University	Master Programme in Entrepreneurship	Google search	Interview with educator
USA	Oklahoma State University	Master's in Entrepreneurship (MSE)	Snowball sampling	Emailing with educator at VCP and webpage

Table 4.2 Confirmation method used to confirm the found VCPs.

4.2.2 Non VCP but borderline cases

Borderline cases are entrepreneurship educations that can be of nature close to a VCP but still does not have all the characteristics needed and therefore do not match into the definition of a VCP. The reason for not qualify as VCP differ but in order to give some idea examples of borderline cases are presented below. Reasons for borderline cases are for example if the venture creation is not supposed to continue but just practical module and an approach to learn through entrepreneurship during a course or a program. Valuation and follow up on some of these cases are of interest but due to time limitation of the project, they act as good example to explain why some cannot be considered to be a real VCP.

Contact	University	Country	Borderline cases.	Further info
Paula Englis	Berry College	USA	Borderline case: Small program support student to start a business during entrepreneurship course. More like project and is not aimed to continue after the EE course.	They run an entrepreneurship program at Berry College. They have a very small program focused on students and helping them start businesses. Students start businesses in the class. They have a startup fund donated by an alumni and students are required to start a business project with \$100 during the Intro to Entrepreneurship course.
Jeff Lowenthal	Northeastern State University, College of Business and Technology	USA	Non VCP: undergrad class: 14 weeks requires the student to start a business. not a program just a class, not supposed to continue the project afterwards	Undergrad only. MGMT3263 - Principles of Entrepreneurship course. Class project - duration: 14 weeks. Targets: \$1,000 gross revenue with 75% profitability. Jeff Lowenthal. Lowenthal@nsuok.edu. 248-900-5332

Table 4.3 Example of borderline cases to the definition of a VCP

4.3 Documentation of research data

There are several reasons why documentation of research is important. First it enhance the credibility of the research, secondly it a crucial to secure a good handover of the research.

4.3.1 The research webpage

In connection with the launch of the project the www.vcplist.com webpage was created. The initial purpose of the webpage was to make it easier to communicate information about the research project to others. It was quite early discovered that, both in an initial phone contact or e-mail conversation, it was an advantage if additional information of the project good be given to person that the researcher was in contact with. Basic information about the venture creation program research project was presented on the webpage. This was done in 6 sub-sections on the webpage: Blog, VCP List, About VCPs, Help us, About us, and Contact.

The *VCP List* section presented the VCPs found so far. The list was updated every time a new VCP was found. Basic information about the program was presented such as, country, name of the institution and program, type of higher education level, the year which it was founded, length of program and link to the programs homepage.

Venture Creation Programs List

VCP List

This list is admittedly short at present. Hopefully there are thousands or at least hundreds of VCPs out there, so please help us out to find them all! But until then, here is the list as of today.

List of Venture Creation Programs

Country	Institution	Program	Degree	Founded	Web	Length	Other	Added
Sweden	Chalmers University of Technology	Chalmers School of Entrepreneurship	M.Sc.	1997	Link	2 years		1 Dec 2010
Sweden	Chalmers and University of Gothenburg	Göteborg International Bioscience Business School	M.Sc.	2005	Link	2 years		2 Dec 2010
Sweden	University of Gothenburg	The Entrepreneurship Track	M.Sc.	2000	Link	2 years		3 Dec 2010
Norway	University of Tromsø	Business Creation and Entrepreneurship	M.Sc.	2008	Link	2 years		5 Dec 2010
UK	University of Huddersfield	Enterprise Development	B.A. (Hons.)	2009	Link	3 years		6 Dec 2010
UK	University of Buckingham	Business Enterprise	B.Sc. (Hons.)	2006	Link	2 years	Intensive learning: 3 years degree which takes 2 years to complete.	7 Dec 2010
USA	College of Business at Colorado State University	Global Social and Sustainable Enterprise	MBA		Link	1 year		7 Dec 2010
Sweden	Lund University	Master Programme in Entrepreneurship	M.Sc.	2006	Link	1 year		16 Dec 2010
USA	Oklahoma State University	Master's in Entrepreneurship	M.Sc.	2010	Link	1 year		18 Jan 2011

About VCPs

This site is about entrepreneurship education, and a certain kind of entrepreneurship education that some people would call Venture Creation Programs (VCPs). This is a quite hands-on types of entrepreneurship education, where the students get to learn to be entrepreneurial by doing it in real-life – by starting a real venture as part of the education. This pedagogy can be quite beneficial for both the individual and society, but so far it is somewhat unusual.

The definition of a Venture Creation Program used at this site is the following:

"Entrepreneurship or business educations on higher education level with a pedagogy firmly based on the creation of a real-life venture as their primary learning vessel"

What is vcplst.com?

Within Entrepreneurship Education, a Venture Creation Program (VCP) is a quite hands-on type of education. Since we really like this, we use this site to display a list of all the VCPs in the world we can find, with some basic information about each. Our goal with this is to build up a global network of VCPs, getting to know all of you and inspiring each other. Please help us out!

Syndicate

Subscribe to this site's RSS feed.

Figure 4.2 Screen dump of the Vecnture Creation Program home page

The blog section: was introduced to communicate our research progress to others. It was also a way to make the research interactive. Besides news about the progress in the project interesting articles was discussed and recommend for readers. Under the sub-sections "About VCPs" the researchers also presented the concept of the entrepreneurship education called venture creation program. Most important the researchers' definition of a venture creation program was presented. In the "Help us" sub-section visitors of the webpage can suggest entrepreneurship educations that can be of the venture creation program type.

5 Empirical results -Confirmed VCPs

During the empirical study using an explorative research approach nine entrepreneurship educations have been found that qualified into the researchers' definition of a venture creation program so far (table 5.1). Besides this list table of confirmed VCPs there are some borderline cases that need further investigation, but as of now they do not meet the criteria's of a VCP. Furthermore there are several new leads that could be of great interest for future research.

Table 5.1 Confirmed VCPs

Country	Institution	Program	Degree	Founded	Length
Sweden	Chalmers University of Technology	Chalmers School of Entrepreneurship	M.Sc.	1997	2 years
Sweden	Chalmers and University of Gothenburg	Göteborg International Bioscience Business School	M.Sc.	2005	2 years
Sweden	University of Gothenburg	The Entrepreneurship Track	M.Sc.	2000	2 years
Norway	University of Tromsø	Business Creation and Entrepreneurship	M.Sc.	2008	2 years
UK	University of Huddersfield	Enterprise Development	B.A (Hons.)	2009	3 years
UK	University of Buckingham	Business Enterprise	B.Sc. (Hons.)	2006	2 years
USA	College of Business at Colorado State University	Global Social and Sustainable Enterprise	MBA	2007	1 year
Sweden	Lund University	Master Programme in Entrepreneurship	M.Sc.	2006	1 year
USA	Oklahoma State University	Master's in Entrepreneurship (MSE)	M.Sc.	2010	1 year

6 Discussion

In this chapter the researcher will analyze and discuss the empirical findings and with this as base see if the research questions can be answered.

6.1 How effective have the different approaches to find VCPs been?

From the empirical findings the results show that; prior knowledge and experience of research team; snowball sampling, both from email and interviews; and web search using Google search have equally contributed to the number of VCPs found. From this at first glance it can be easy to draw the conclusion that they are equally effective but this may not be the case. For example the prior knowledge and experience of the research team is fixed. The prior experience is the initial knowledge in the area and will therefore be the foundation of what the researchers know. Any new knowledge about possible VCPs will most likely come through snowball sampling or Google search. Hence the most interesting is to look what have been most successful method between snowball sampling and Web search.

The results of three found VCPs for both the Google search and the snowballing approach suggests that they have been equally effective but this is just a matter of perspective. For the first the number of VCPs found are very low which can means the probability is high that by chance they got the same result, continued research needs to be done in order to get a better idea about how effective they are. The secondly more interesting is to look into the number of potential VCPs that was found using each method, especially the borderline cases. The statics have not been compiled yet, one reason for this are that many potential VCPs have are yet to be further investigated. But the general understand of the author is that they both have generated many potential VCPs, and that both methods have advantages and disadvantages. For example the Snowball sampling is powerful to get to know about new or upcoming educations yet not having a good webpage. This at the same time the disadvantage of the web search approach since it relies that the entrepreneurship education have a webpage or is mentioned in written form somewhere else in the internet and this is not always the case.

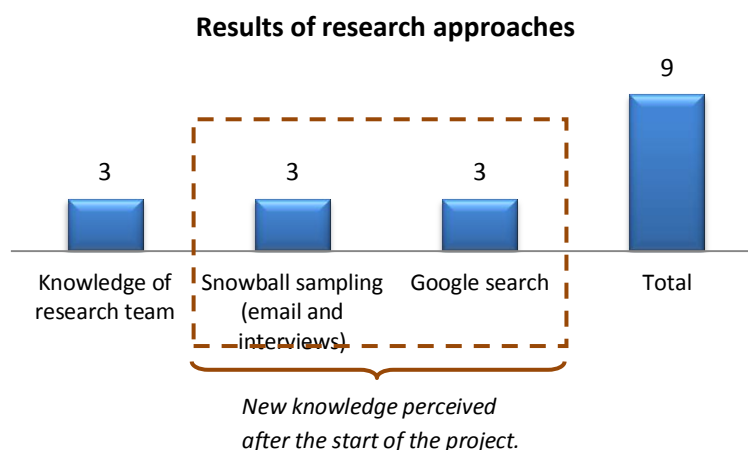


Figure 6.1 Result from the three different methods to find VCPs

6.1.1 Confirmation methods

When the author has found an interesting EE that have potential of being a VCP, there are some alternatives to confirm this. As presented in the empirical findings four different confirmation methods were used:

- Using the information on the venture creation program's homepage.
- Email communication with a contact person at the possible VCP education.
- Interview with one of the educators of the program.
- Researcher own knowledge about the entrepreneurship education.

The first and maybe the least reliable is confirmation method is to use the information on entrepreneurship education program homepage. The information on the webpage are usually not comprehensive and therefore do not include important aspects that could be of interested to be able to confirm it as VCP. Another reason is that the webpage is not always up to date and therefore the information cannot be seen as fully reliable.

A better method, or a method to complement is to email the contact persons given to an entrepreneurship education and be able to ask question about the exact nature of the program. This method is often better since this secure that the information you receive is up to date, and also it is possible to ask specific control questions.

The third method used was to interview one of the educators of the program, for example the program director. Just like using email this method makes sure the information is up to date. The advantage of using this method versus just emailing is that an interview allows the researcher to confirm that that the interviewee has understood and interpret the questions correctly. It is also easier to ask follow-up questions, short but specific, in the area needed.

Besides these three methods the research team can use prior experience in the area and knowledge. The research team consists of two PhDs, a PhD Candidate and a research assistant. All with experience and knowledge in entrepreneurship education. The collected knowledge of the research team has also been used to find, follow up and confirm entrepreneurship educations as VCPs.

6.2 Are there other educations, besides the already known at Chalmers University, that coincide with the working definition of a VCP?

Through emailing, interview, both also applied with the snowball sampling concept, mass email to around 330 universities that offer some kind of entrepreneurship education, the knowledge of research team consisting of two PhDs, and a PhD candidate all in active in the entrepreneurship education field only 9 nine VCP was found. Hence considering the total number of universities that the researcher has been in contact with the results of this first explorative research phase is that the VCP educations are quite uncommon.

Another reflection is that besides the VCPs at Chalmers and University of Gothenburg the other VCPs found are not older than 1-5 years. These findings imply that the VCP concept is relatively new. There are many possible reasons for this, just the obstacles of starting are VCP are seems as quite big. According to the interviewees is the process of setting up a VCP very complex and therefore take a lot of time. Furthermore it was confirmed that all the resources needed; both human resources,

such as educators in the entrepreneurship; and funding, setting up an incubation function. Lack of best practice could also be seen as something that decreases the chances for succeeding in setting up a VCP.

6.3 Reliability and limitation of the study

Since this research has been conducted during a limited time period, one can always claim that further research is needed. The size of the targeted population and the use of several different research methods make, according to the author, the result reliable enough to give an indication that VCPs are quite uncommon with only nine confirmed VCPs. With that said, the author still thinks that the time has been of great limitation of the study. The starting up process for this kind of explorative research approach using snowballing has been relatively slow. The effect of the snowballing approach can in many ways be compared with an exponential effect. The method needs time to gain momentum and that momentum was starting to gain in the end of the project period. Many leads and potential good leads could not be followed up.

6.3.1 Borderline cases

There are some borderline cases if we look at the definition, a couple of them presented in chapter "4.2.2 Non VCP but borderline cases", but these are considered by the author as non VCP. There is a great interest to follow up more leads if time was given and investigate other potential VCPs and get a larger amount of input of potential VCPs to better evaluate the working definition.

6.4 The definition of VCP

In the beginning of the project a working definition of a VCP was decided. This was a necessity, because in order to be able to find VCPs in the world one has to first start off by defining what we are looking for. With the current definition nine VCPs were confirmed during the research period. Besides finding VCPs the research project aimed also to review the definition and the second research question of this research project was stated:

RQ 2: What are the strengths and weaknesses of the working definition of a VCP?

Working definition stated as followed:

"A Venture Creation Program (VCP) is an Entrepreneurship or business education on higher education level with a pedagogy firmly based on the creation of a real-life venture as their primary learning vessel"

The author's reflections are that this is not a very bad definition but at the same time is not very good either. In the table below, the authors try to compile some reasons for the weakness of the current definition of the a VCP starting off by presenting a quote. The following quote is from a respondent on the mass email survey.

"The problem is 'how compulsory it is'. Or in other words, what would be the definition of 'launching a venture'. For example, in my class, I ask them to develop something (product or service) that is sellable and the students should sell it until the end of the class. This is a sort of 'launching a venture' in my understanding. But if launching a venture means starting a legal entity, corporation. Then my class may not be such one."

First this quote shows that the definition have left the respondent with some questions. In this case it is about the “creation of a real-life venture”. Something that was clear for the researcher could be interpret in more than one way by the respondent. Further weaknesses of the definition have been summarized in table

Table 6.1 Weaknesses of the current definition of a VCP

Part of definition	What the researcher had in mind	Weakness
<i>“... entrepreneurship or business education on higher education level...”</i>	B.Sc or M.Sc program	The definition does not explain what type of educational form is required. For example it does have to be a B.Sc or M.Sc program or is it enough with a course, or a course package. For example minor, major in the U.S. This is not clear in the current definition
<i>“...creation of a real-life venture...”</i>	Starting a legal entity	Does not say anything of legal entity which was what the researchers first had in mind
<i>“...creation of a real-life venture...”</i>	Students becomes shareholders	Does not include the legal involvement of the students, will they become owners, or partly owner or not owners at all.
<i>“...pedagogy firmly based on the creation of a real-life venture as their primary learning vessel...”</i>	The researcher had in mind that the business would be continued	Does not say what is supposed to happened with the real-life venture after the education.

6.5 Extended discussion about the nature of a VCP vs other EE

This section is a discussion and further attempt to try to explain the nature and the concept of a VCP in the author points of view both from the literature review and theoretical framework as well as the general understanding after practical research done.

6.5.1 VCP an action-based entrepreneurship education

To further describe the nature of a VCP as entrepreneurship education it can be easier to put it in a content and look at it relatively other entrepreneurship educations. From the conducted research study into the area of entrepreneurship education and the literature review for this research project it could be concluded that entrepreneurship educations comes in a broad spectra.

With the background of the theoretical framework one way to view entrepreneurship education is in the span between traditional learning and action based learning (Ch. 3.2.4 Traditional learning vs action based learning). Where the traditional learning is what can be said theoretical oriented learning, whiles the action based learning is a very practical oriented learning approach which according to Gibb (1998) gives the student a better understanding of the true nature of entrepreneurship. This goes further into the discussion in the different ways entrepreneurship can be taught as discussed by Mwsalwiba (2010). Depending of the exact nature of an entrepreneurship education the way the student will learn taught in the field of entrepreneurship differs. This often depends of the which learning approach the educator have chosen to use traditional or action-based, and of course all the methods that lay in between these two extremes. Guest lectures, interactive

seminars, project assignments in teams, business plan on real ideas but no realization, entrepreneurship education (EE) with support for venture creation but not compulsory, entrepreneurship educations with real-life interaction e.g internship at start-ups, starting a real project that is terminated in the end of the course. Ranging these entrepreneurship educations according to their content a linear scale (fig. 6.1) with from traditional learning to action-based learning, the authors claims that the VCP will be the most action based entrepreneurship education.

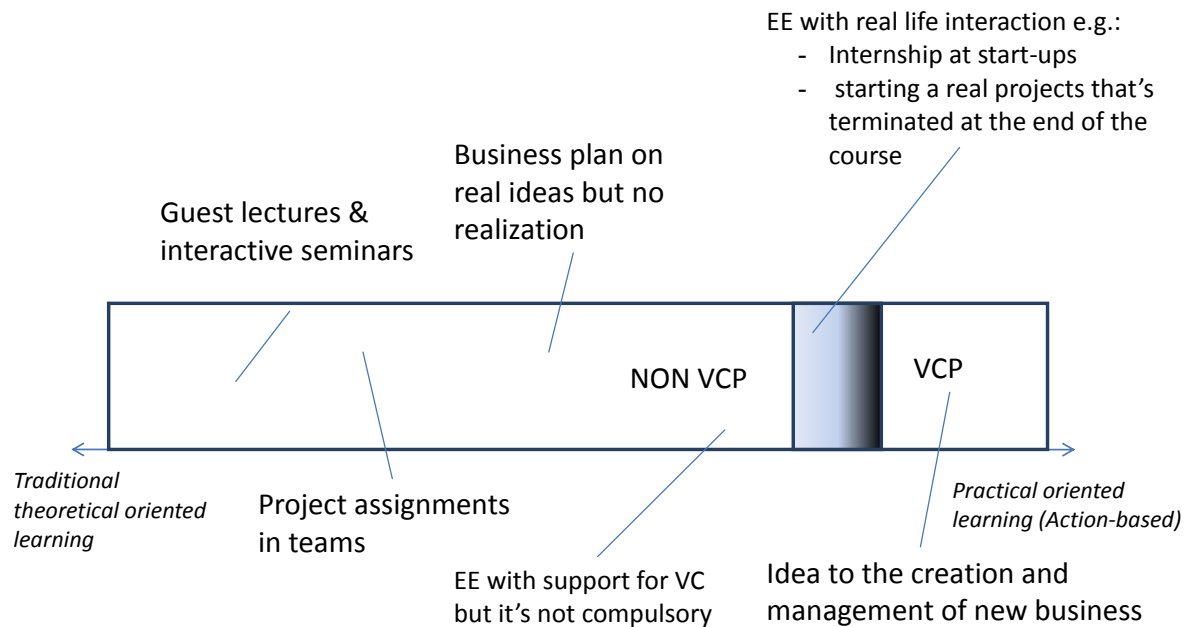


Figure 6.2 The linear model of entrepreneurship educations (EE)

This linear model shows that we can range or categorize the entrepreneurship education depending on their learning approach and education content. The author created a grey zone because educations that are so called border line case that due to the current definition could be or could not be VCP, it is not 100 percent sure to put the education on either side of the line between NON VCP and VCP.

6.5.2 The Entrepreneurship Education Matrix

The linear scale is an interesting starting point to get an understanding about the different types of entrepreneurship education. A very interesting nature of a VCP is the starting a real-life venture and hence let the student interact with the real world. This led the author to think about a second dimension: which level of real-life interaction an entrepreneurship education give the student. This led to that the author created the entrepreneurship education matrix to better explain the exact and relate the VCP in relation to not just one but two dimensions (fig 6.2). Since the students' start a real-life venture it has according to the author a very high level of real-life interaction.

The Entrepreneurship Education Matrix is a two dimensional visualization and hence gives a more specific description about the VCP as an education compared to the linear "traditional learning vs. action based learning" model. The advantage of such a model is that it better show how one can better explain the difference between the VCP and potential borderline cases.

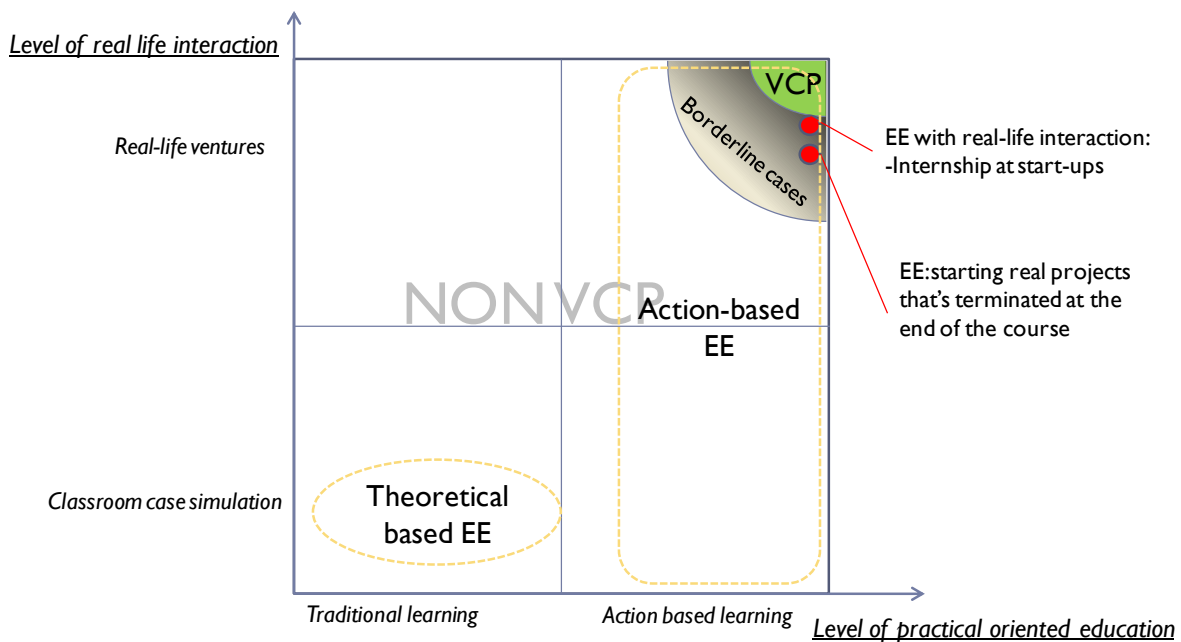


Figure 6.3 The Entrepreneurship Education Matrix

The second dimension of the matrix, level of real life interaction, puts the education objectives in consideration such as how the entrepreneurship is taught and learned: Is the student learning “about”, “for” or “through” entrepreneurship? (Rasmussen, 2006; Mwasalwiba, 2010) presented in (ch. 3.2.5 Different entrepreneurship education objectives: Educating for, about, in and through). The model therefore helps to differ different types of action based entrepreneurship education.

The problem with this model is that the current borderline cases also have a high level of real-life interaction. Since an Entrepreneurship education where the student does an internship at a start-up, or an entrepreneurship education the including starting a real project but that is terminated in the end of the course, are both education the results in a high level of real-life interaction and hence still hard to distinguish from a VCP in this model. This also results in a quite large grey zone for borderline cases. This made the author to modify the model by introducing and change the second factor of measurement. The new model introduced next is named the Affection-based entrepreneurship education matrix.

6.5.3 The Affection-based Entrepreneurship Education Matrix

According to Kyrö (2008) the concept of cognition, affection and conation important aspects for teaching and learning entrepreneurship. The author therefore thought that measuring an education in the factor of emotional investment may make it easier to distinguish between the VCP and other borderline cases. The main reason for this is according to the author that the student that starts a real-life venture have high commitment, higher responsibility, larger feeling of involvement. Consequences of the students actions become much larger and all this results in a very high emotional investment.

In the two borderline examples presented the previous Entrepreneurship Education Matrix (fig. 6.2) where the student at one EE does an internship at start-up, or an entrepreneurship education the

including starting a real project but that is terminated in the end of the course, are both educations the results in a high level of real-life interaction. But the level of emotional investment are not as high as for the student committed to run their own business at a VCP education. Hence the author want to introduce a modification of the first matrix and present the Affection-based Entrepreneurship Education Matrix (fig. 6.3).

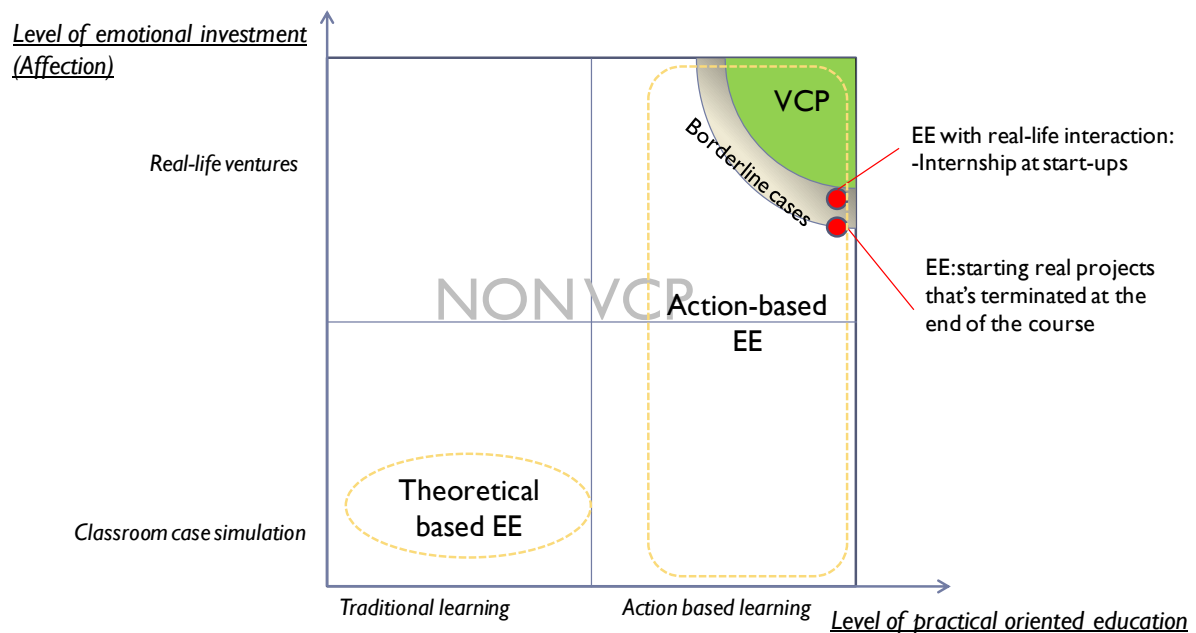


Figure 6.4 Affection-based Entrepreneurship Education Matrix

The modified matrix may seem very similar to the first but now the focus is instead is on the level of emotional investment in the entrepreneurship education. This serves much better to explain the exact and unique nature of a VCP, where students run the own business and real success for the future venture is relies on their own commitment and resulting in a high emotional investment. In this case it is easier to understand, explain and see the visual difference in the matrix between a VCP and the previous borderline example where you perform an internship for limited time, or starting a real project that is too terminated in the end of the course. In both these cases the level of emotional investment is not as high as for a student at a VCP.

7 Conclusions

During this research project into entrepreneurship educations and Venture Creation Programs and during the process of creating this report the author have learned a lot and made several interesting findings. In beginning of this report the two main research questions for this master's thesis were presented. The author will in this concluding chapter try to give as short and concise answers to these questions as possible by summarizing the conclusions drawn from this report.

RQ 1: Are there other educations, besides the already known at Chalmers University, that coincide with the working definition of a VCP?

- The results of only nine found VCP concludes that the education concept is rare in comparison to the total number of educations that have been studied during the research period.
- Besides the VCPs at Chalmers and University of Gothenburg the other confirmed VCPs are not older than 1-5 years, which indicates that the concept is relatively new.
- Results from interviews show that the complexity and the large amount resources needed to start a VCP are great obstacles. For example the complexity of setting up an incubator and the human resources needed sometimes very hard to find. The complexity does also result in that needs a lot of time, capital investments and effort to set up a VCP.

RQ 2: What are the strengths and weaknesses of the working definition of a VCP?

The strength of the working definition is that it served its purpose to give the first initial description of the type of entrepreneurship education that the researcher was looking for. But it was later discovered that the definition has many weaknesses. One indication of this are borderline cases, that are for example entrepreneurship educations that cannot really be said to be VCP or not because of the weakness of the definition. Furthermore it has been proven that some parts of the definition can be interpreted in different ways. These are the main reasons why the current definition is not suitable:

- The definition is not clear enough, resulting in that it can be misinterpreted and can therefore be seen as vague.
- The definition leaves some questions unanswered resulting in borderline cases. E.g. does the venture need to result in a legal entity?
- The authors understanding of many of the important nature of a VCP is not even reflected in the definition. E.g. the students shareholder situation, the goal to continue the business after graduation.

7.1.1.1 Way forward

The next step in this research process is to redefine the definition of a VCP. Before this can be done it has to be decided in a more specific way the exact characteristic of a VCP. The author suggests that the Affection-based Entrepreneurship Education Matrix that have been created in this report can be used and serve as foundation to better explain the nature of a VCP and hence develop a new and more specific definition.

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Appendix A.1 Email responses to mass email.

Examples of findings from email responses from the mass email to the entrepreneurial network.

Contact	University	Country	VCP status	Further info
Eric Liguori	Louisiana State University	USA	Tip: They don not have but gave a tip. Need to follow up this lead	California State University, Fresno (Fresno St.) has a capstone entrepreneurship course that requires all students to begin their own venture. Dr. Tim Stearns <timothys@csufresno.edu> is the head of their Center for Entrepreneurship and may be able to provide additional information.
Paula Englis	Berry College	USA	Borderline case: Small program support student to start a business entrepreneurship, get help to start business, borderline case, since not compulsory	I run the entrepreneurship program at Berry College. We have a very small program focused on students and helping them start businesses. Students start businesses in the class. I have startup fund donated by an alumni and students are required to start a business with \$100 during the Intro to Entrepreneurship course.
Fernando Pereira Laverde	Pontifica Universidad Javeriana	Colombia	Maybe: waiting for further info, have a program where the student should start a business	
Fernando Gaspar	Instituto Politecnico de Santarem and Universidade Lusitana de Lisboa	Portugal	Maybe: offer E-program called IEESF. Further investigation needed	IEESF, himself to contact, Only starts after the summer. Undergraduate program.
Jeff Lowenthal	Northeastern State University, College of Business and Technology	USA	No: undergrad class: 14 weeks requires the student to start a business. not a program just a class, not supposed to continue the project afterwards	Undergrad only. MGMT3263 - Principles of Entrepreneurship course. Class project - duration: 14 weeks. Targets: \$1,000 gross revenue with 75% profitability. Jeff Lowenthal. Lowenthal@nsuok.edu. 248-900-5332
Luis Mariano Muniz Contreras	Universidad Nacional Autonoma de Mexico	Mexico	Tip: Do not have but tip of other. further investigation needed to come back with more info	Represents the University of Oaxaca and can connect the author with the two major Universities at Mexico City. (UNAM and IPN). gathering the information of the Universities, at this moment the Universities are making some changes on their staff so in order to give you the more accurate information I have to wait
Sidnee Peck	Arizona State University	USA	Maybe, further investigation needed: undergraduate program, starts this spring	My program is the certificate in Knowledge Entrepreneurship and Innovation (undergoing final approval, but courses are already running), which includes three core courses and two capstones. It is unique because it is available to any student at the University, no matter their major or area of study. You can view the website: http://mlv.asu.edu for some more info. It is an undergraduate level offering.
Vitor Braga	Instituto Politecnico do Porto	Portugal	NO VCP: Course in venture creation, but just simulation	In fact at my institution - Porto Polytechnic, we have something similar, although the students do not have to implement the business in the real world, as this is a simulation course. I don't know if this fits in what you are looking for. if you think this is suitable for your research please let me know and I will answer to all your specific questions about this course.

Sofia Kauko-Valli	University of Jyväskylä	Finland	Maybe: Supposed to start some kind of this year. Further investigation needed.	Sofia has not replied on the follow up emails
Dohyeon Kim	Kookmin University	South Korea	Bordeline case, business project but no real legal entity started: Have course where the student develop a service or product that they sell during the course but does not start a legal entity	The problem is "how compulsory it is". Or in other words, what would be the definition of "launching a venture". For example, in my class, I ask them to develop something (product or service) that is sellable and the students should sell it until the end of the class. This is a sort of 'launching a venture' in my understanding. But if launching a venture means starting a legal entity, corporation.. Then my class may not be such one. So if you explain me a little bit more about the definition, then I could introduce such classes, if any.
Chris Aziz	MARA University of Technology Terengganu	Malaysia	No vcp: but encourage students to start business and support them	However, some institution, Universiti Teknologi Mara for instance, they normally encourage students to involve in business in the campus under supervision of lecturer where the shop or premises and the infrastructure will be provided by the university.
Susan Rushworth	Swinburne University	Australia	One of the leads already a confirmed VCP and another Potential VCP: need to follow up lead.	RMIT University, Melbourne Australia in their Bachelor of Entrepreneurship program. However, they have recently streamlined programs so I am not sure whether the requirement still applies. Contact Dr Kosmas Smyrniotis at kosmas.smyrniotis@RMIT.edu.au University of Oklahoma, contact Dr Larry Michaelson - sorry, I don't have his email address. Students start a business and put up a business plan to a local bank for a loan.
Cormac McMahon	Institute of Technology Blanchardstown	Ireland	Potential VCP, further investigation needed: run new venture programs for final-year undergraduates	We are a small Institute of Technology in Dublin, Ireland. We run new venture programs for final-year undergraduates. About three years ago we got national funding to pilot a strategic initiative in entrepreneurship education across the different universities and institutes of technology in Ireland. The result was a project called "Accelerating Campus Entrepreneurship" or ACE. Some useful reports and activities from the initiative can be found on www.aceinitiative.ie . I have attached a research report, which is a preamble to some of the pilot programmes currently underway.
Sabrina Niederle	UnternehmerTUM	Germany	bordeline case, not clear if they start legal entities or if they just work in projects: offer a 18month long entrepreneurship program	The Manage&More Program offer scholars in innovation projects the opportunity to establish direct contacts with companies, make themselves acquainted with current tasks and challenges in industry, and develop solutions to such tasks in interdisciplinary teams. Participating in start-up projects, the scholars are supported in promoting their own business concepts. Manage&More focuses in particular on the practical, entrepreneurial qualification in projects: Working in interdisciplinary teams, the participants develop and implement business concepts to create innovative, marketable products and services. Particular significance is given to the development of the participants' personality through individual coaching.

Appendix A.2 Google searches

Internet search performed between the 1th and 2nd of December 2010, using Google search engine (www.google.com).

“Entrepreneurship education”, 196 000 hits

“Entrepreneurship educations”, 478 hits

“Entrepreneurship education program”, 145 000 hits

“Entrepreneurship education programs”, 157 000 hits

“Entrepreneurial education”, 181 000 hits

“Entrepreneurial educations”, 101 hits

“Entrepreneurial education program”, 48 100 hits

“Entrepreneurial education programs”, 60 400

“Entrepreneurship education in Europe”, 35 000 hits

“Venture creation program”, 686 hits

“Venture creations programs”, 2 240 hits

"venture creation programme", 3,200 hits

"venture creation programmes", 1,900 hits

“New venture creation program”, 1,720 hits

“New venture creation programs”, 1,270 hits

“New venture creation programme”, 1,960 hits

“New venture creation programmes”, 1,750 hits

Appendix B. Initial Email to new contacts

Below is an example of a standard template of an email sent to new contacts.

“Dear [name of new contact],

My name is Joakim Hallgren and I am Research Assistant at Chalmers University of Technology, Sweden. My colleagues and I are conducting a research project into entrepreneurship educations. This project is about a certain kind of entrepreneurship education that we have chosen to call Venture Creation Programs (VCPs). This is a quite hands-on type of entrepreneurship education, where the students get to learn to be entrepreneurial by doing it in real-life by starting a real venture as part of the education.

I would very much **like to call you** to introduce our research and myself and ask a few very short questions about the entrepreneurship education offered at your university. If you have a couple of minutes to spare I would like to call you when it is convenient for you. I find it more personal than just having an email conversation.

The research project aims to map out as many as possible VCPs in the world. In this first explorative phase the approach is to do this by contacting people in the entrepreneurship education world and in entrepreneurship networks and organizations. By doing so we hope that people will spread the word about our research so the list will include as many as possible of the world’s VCPs.

Our research and progress will be presented on our webpage www.vcplist.com, where the list as of today is presented. On this page one can suggest entrepreneurship educations that seem to fall in our initial definition of a VCP. The long term goal is to establish an online network for VCPs where ideas and best practice can be shared between the different educations.

If you know of others that might be interested in our research or can contribute with their knowledge in the entrepreneurship education area, please forward this email or just ask them to take a look at our webpage, www.vcplist.com

Best Regards

Joakim Hallgren
Research assistant, VCP research project
Chalmers University of Technology,
Gothenburg, Sweden”

Appendix C. Table over recipients in mass email survey

C.1 List of universities and contact persons that were included in the mass email study

Contact Person	University	Country
NORTH AMERICAN REGION		
Teresa Menzies	Brock University	Canada
Alexandra Dawson	Concordia University	Canada
Louis-Jacques Filion	HEC Montreal	Canada
Robert Anderson	Regina University	Canada
Steve Gedeon	Ryerson University	Canada
Robert Warren	University of Manitoba	Canada
Jacques Baronet	Universite de Sherbrooke	Canada
Lee Swanson	University of Saskatchewan	Canada
Andrew Maxwell	University of Waterloo	Canada
Etienne St-Jean	University Quebec a Trois-Rivieres	Canada
Steve Farlow	Wilfried Laurier Universit	Canada
Paola Isabel Rodriguez Gutierrez	Autonomous U of San Luis Potosi	Mexico
Laura Calleros	Universidad Anahuac del Sur	Mexico
Luis Miguel Espinosa Reyes	Universidad Autonoma Benito Juarez at Oaxaca (Mexico)	Mexico
Jose G. Vargas-Hernandez	Universidad de Guadalajara	Mexico
Luis Mariano Muniz Contreras	Universidad Nacional Autonoma de Mexico	Mexico
Sidnee Peck	Arizona State University	USA
Erick Chang	Arkansas State University	USA
Peter Hackbert	Berea College	USA
Paula Englis	Berry College	USA
Joyce LeMay	Bethel University	USA
Stephen Whiting	Bethel University	USA
Eden Blair	Bradley University	USA
Ali	Brown University	USA
Michael Stull	California State San Bernardino	USA
JoAnn Carland	Carland College of Entrepreneurship	USA
Babs Carryer	Carnegie Mellon University	USA
Amy Whitney	Clark University	USA
William Gartner	Clemson University	USA

Mellani Day	Colorado Christian University	USA
Dawn DiTienne	Colorado State University	USA
Joseph Roberts	Columbia College – Chicago	USA
Kirk Heriot	Columbus State University	USA
Laura Mizaur	Creighton University	USA
N/A	École de Technologie Supérieure - Quebec	Canada
N/A	École Polytechnique de Montréal	Canada
Andrea Hershatter	Emory University	USA
Isha Edwards	Epic Measures, LLC	USA
Gary Castrogiovanni	Florida Atlantic University	USA
Marty Mattare	Frostburg State University	USA
Morgan Miles	Georgia Southern University	USA
Jim Dupree	Grove City College	USA
Doan Winkel (Director)	Illinois State University	USA
Mary White	Jackson State University	USA
Robert Trebar	Lake Erie College	USA
Eric Liguori	Louisiana State University	USA
Mark Weaver	Louisiana State University	USA
David Choi	Loyola Marymount University	USA
Alex Stewart	Marquette University	USA
Brandon Bruce	Maryville College	USA
Tony Bledsoe	Meredith College	USA
Brett Smith	Miami University	USA
Forrest Carter	Michigan State University	USA
Sharon Alpi	Millikin University	USA
Daniel Holt	Mississippi State University	USA
Brent Kinghorn	Missouri State University	USA
Caroline Fisher	Missouri University of Science & Technology	USA
Scott Bryant	Montana State University	USA
Sara Pirayesh Sanders	New Mexico State University	USA
Jeff Lowenthal	Northeastern State University	USA
Tawni Ferrarini	Northern Michigan University	USA
Daniel Ferguson	Ohio Northern University	USA
Chris Welter	Ohio State University	USA
Iain Clelland	Radford University	USA
Rick Nunez	Ramapo College of New Jersey	USA

Trey Goede	Saint Louis University	USA
Connie Marie Gaglio	San Francisco State University	USA
Deborah Marlino	Simmons School of Management	USA
Fiona Wilson	Simmons School of Management	USA
Susan Duffy	Simmons School of Management	USA
Vernon Bachor	St. Cloud State University	USA
Tele-University - Quebec	Canada	
Universite Laval	Canada	
David Noble	University of Alabama	USA
Craig Armstrong	University of Alabama	USA
Rick Wolk	University of Alaska Southeast	USA
Peter Sherman	University of Evansville	USA
Ethne Swartz	University of Fairleigh Dickinson	USA
Emmeline de Pillis	University of Hawaii – Hilo	USA
Alan Lish	University of Houston	USA
John Mueller	University of Louisville	USA
Benjamin Lichtenstein	University of Massachusetts – Boston	USA
Pat Borchert	University of Minnesota - Duluth	USA
Ronda Smith	University of Nebraska – Lincoln	USA
Juan Florin	University of New Hampshire	USA
Lisa Jones Christensen	University of North Carolina - Chapel Hill	USA
Channelle James	University of North Carolina – Greensboro	USA
Joe Erba	University of North Carolina – Greensboro	USA
Raymond Jones	University of North Texas	USA
N/A	University of Quebec at Outaouais	Canada
N/A	University of Quebec at Abitibi-Témiscamingue	Canada
N/A	University of Quebec at Rimouski	Canada
Jeffrey Pollack	University of Richmond	USA
Eugene Muscat	University of San Francisco	USA
Bryan Bourdeau	University of Southern Indiana	USA
Dave Williams	University of Tennessee - Knoxville	USA
John Butler	University of Texas – Austin	USA
Joseph Picken	University of Texas Dallas	USA
Santiago Ibarreche	University of Texas El Paso	USA
Cory Hallam	University of Texas San Antonio	USA
Kathleen Liang	University of Vermont	USA

Greg Fisher	University of Washington Seattle	USA
John Upson	University of West Georgia	USA
Dianne Murphy	University of Wisconsin – Milwaukee	USA
Rebecca Wyland	University of Wisconsin – Milwaukee	USA
Mark Fenton	University of Wisconsin – Stout	USA
Jeff Vanevenhoven (Director)	University of Wisconsin – Whitewater	USA
Dan Holland	Utah State University	USA
Margaret Williams	Wayne State University	USA
Janice Gates	Western Illinois University	USA
Emeric Solymossy	Western Illinois University - Quad Cities	USA
Matthew Marvel	Western Kentucky University	USA
Timothy Pett	Wichita State University	USA
Jeffrey Alves	Wilkes University	USA
Steven Stovall	Wilmington College	USA
Jay Azriel	York College of Pennsylvania	USA
SOUTH AMERICAN & CARRIBEAN REGION		
Magna Maria Silva	Brazil	
Luiz Ojima Sakuda	Centro Universitario da FEI	Brazil
Daniel Garcia Correa	Centro Universitário Senac São Paulo	Brazil
Amisha Miller	Endeavor Brazil	Brazil
Juliano Seabra	Endeavor Brazil	Brazil
Taiguara Langrafe	Fundação Escola de Comércio Álvares Penteado	Brazil
Tales Andreassi	Fundação Getulio Vargas de Sao Paulo	Brazil
João Batista Vieira Bonome	Ibmec Minas Gerais	Brazil
Luiz Mesquita	Inspere Instituto de Ensino e Pesquisa	Brazil
Marcos Hashimoto	Instituto de Ensino e Pesquisa	Brazil
Valeria Leite	Universidade Federal de Itajuba	Brazil
Eduardo Pertille	Universidade Federal do Rio Grande do Sul	Brazil
Joao Ribeiro	Universidade Municipal de Sao Caetano do Sul	Brazil
Marianne Hoeltgebaum	Universidade Regional de Blumenau (FURB)	Brazil
Cristobal Garcia	Pontifica Universidad Catolica de Chile	Chile
Romina Barrera Carquen	Pontifica Universidad Catolica de Chile	Chile
Gianni Romani	Universidad Catolica del Norte	Chile
Jose Ernesto Amoros	Universidad del Desarrollo	Chile
Maria Victoria Echavarria Goicochea	Escuela de Ingenieria de Antioquia	Colombia

Fernando Pereira Laverde	Pontifica Universidad Javeriana	Colombia
Francisco Jose Cordoba Oralora	Universidad Colegio Mayor de Cundinamarca	Colombia
Carlos Alberto Restrepo Rivillas	Universidad Externado de Colombia	Colombia
Irene Alvarado	Earth University	Costa Rica
Claudio Arcos	Colegio de Administradores Profesionales de Pichincha	Ecuador
David Lansdale	Universidad San Francisco de Quito	Ecuador
Georgina Tunarosa	Universidad Francisco Marroquin	Guatemala
Cristina Bellido	Pontifica Universidad Catolica del Peru	Peru
Keiko Nakamatsu	Universidad ESAN	Peru
Maria Lugo	Interamerican University of Puerto Rico, Fajardo Campus	Puerto Rico
Edwin Ortiz Mundo	Universidad Metropolitana	Puerto Rico
Ambica Medine	COSTAATT	Trinidad and Tobago
Priscilla Bahaw	University of Trinidad and Tobago	Trinidad and Tobago
Nunzia Auletta	Instituto de Estudios Superiores de Administracion	Venezuela
Wayne Charles-Soverall	University of the West Indies	West Indies
EUROPEAN / RUSSIAN REGION		
Magdalena Bregasi	European University of Tirana	Albania
Christian Hopp	University of Vienna	Austria
Herman Baert	Catholic University Leuven	Belgium
Frank Janssen	Universite Catholique de Louvain	Belgium
Bernard Surlemont	University of Liege	Belgium
Milen Baltov	Burgas Free University	Bulgaria
Daniel Pavlov	Ruse University	Bulgaria
Veneta Hristova	Tsenov Academy of Economics	Bulgaria
Kostadin Kostadinov	VUZF University	Bulgaria
Sanja Pfeifer	University of Josip Juraj Strossmayer in Osijek (Croatia)	Croatia
Mustafa Tümer	Eastern Mediterranean University	Cyprus
Linda Lundgaard Andersen	Roskilde University	Denmark
David Pollard	Leeds Metropolitan University	England
Chris Coleridge	Regents College	England
Nigel Adams	University of Buckingham	England
Haya Al-Dajani	University of East Anglia	England
Julian Beer	University of Plymouth	England

Dina Williams	University of Huddersfield	England
Sofia Kauko-Valli	University of Jyväskylä	Finland
Vesa Puhakka	University of Oulu	Finland
Veikko Somersalmi	University of Tampere	Finland
Christophe Loue	Advancia	France
Catherine Leger-Jarniou	University Paris-Dauphine	France
Levan Gogoladze	Caucasus University	Georgia
Christian Schwens	Universitat Giessen	Germany
Hans-Jurgen Weissbach	University of Applied Sciences	Germany
Yipeng Liu	University of Mannheim	Germany
Sabrina Niederle	UnternehmerTUM	Germany
Regina Krause	Wismar University	Germany
Fani Zotou-Ntoni	Third Epal Neas Filadelfeias	Greece
Alexandros Kakouris	University of Athens	Greece
Peter Szirmai	Corvinus University of Budapest	Hungary
Antal Szabo	ERENT	Hungary
Szilveszter Farkas	Széchenyi István University	Hungary
Margaret Sigrun Siguardottir	University of Iceland	Iceland
Cormac McMahon	Institute of Technology Blanchardstown	Ireland
Maebh Coleman	National University of Ireland	Ireland
Denise Crossan	Trinity College Dublin	Ireland
Michele O'Dwyer	University of Limerick	Ireland
Carmelo Cennamo	Bocconi University	Italy
Diego Matricano	Second University of Naples	Italy
Enzo Bivona	University of Palermo	Italy
Besnik Krasniqi	Business Start-Up Centre Kosovo	Kosovo
David Gibson	Riga Institute of Economics	Latvia
Radmil Polenakovik	Methodius University	Macedonia
Leonie Baldacchino	University of Malta	Malta
Maxine Crener	International University of Monaco	Monaco
Erwin Koenraads	Erasmus University Rotterdam	Netherlands
Caroline Essers	Radboud University Nijmegen	Netherlands
Erik Stam	Utrecht University	Netherlands
Cadrin Kruijne	Utrecht University	Netherlands
Marco van Gelderen	VU University Amsterdam	Netherlands
Lars Kolvereid	Bodo Graduate School of Business	Norway

Jan Frick	Stavanger University	Norway
Paula Carvalho	Institute of Accounting and Administration of Porto	Portugal
Fernando Gaspar	Instituto Politecnico de Santarem and Universidade Lusitana de Lisboa	Portugal
Pedro Dominginhos	Instituto Politecnico de Setubal	Portugal
Vitor Braga	Instituto Politecnico do Porto	Portugal
Virginia Trigo	ISCTE Business School	Portugal
Ricardo Figueiredo Belchior	ISEG – Universidade Tecnica de Lisboa	Portugal
Susana Cristina Serrano Fernandes Rodrigues	Polytechnic Institute of Leiria	Portugal
Jose Paulo Rainho	Universidade de Aveiro	Portugal
Maria Jose Silva	Universidade de Beira Interior	Portugal
Anca Borza	Babes-Bolyai University	Romania
Ioan Fotea	Emanuel University of Oradea	Romania
Zsuzsanna Katalin Szabo	Petru Major University	Romania
Catalin Popescu	University of Oil and Gas	Romania
Alexander Settles	Higher School of Economics	Russia
Elena Pereverzeva	Moscow International Higher Business School MIRBIS	Russia
Blair Winsor	Edinburgh Napier University	Scotland
Anthony Ives	Scottish Institute for Enterprise	Scotland
Sheena Bell	University of Glasgow	Scotland
Mirjana Radovic Markovic	Institute of Economic Sciences	Serbia
Jaka Vadnjal	GEA College	Slovenia
Miroslav Rbernik	University of Maribor	Slovenia
Mathieu Carenzo	IESE Business School	Spain
Jose Sanchez-Garcia	Universidad de Salamanca	Spain
Ignacio Mira-Solves	Universidad Miguel Hernandez	Spain
Jose Ruiz Navarro	University of Cadiz	Spain
Lazaro Rodriguez Ariza	University of Granada	Spain
Samuel Gomez	University of Granada	Spain
Monica Carmona	University of Huelva	Spain
Besrat Tesfaye	Södertörn University	Sweden
Aydin Birik	Bahcesehir University	Turkey
Ozan Sonmez	Istanbul Bilgi Universitesi	Turkey
Ufuk Cakmakc	Istanbul Bilgi Universitesi	Turkey

Tuzin Baycan-Levent	Istanbul Technical University	Turkey
Ali Beba	Ozyegin University	Turkey
Cagri Bulut	Yasar University	Turkey
Siwan Mitchelmore	Bangor University	Wales
ASIAN / INDIAN / SOUTH PACIFIC REGION		
Wang Zhen	Asian Association of Business Incubation	
Abdul Rifai	Deakin University	Australia
Susan Rushworth	Swinburne University	Australia
Gary Hancock	University of Adelaide	Australia
Gary Mankelow	University of Newcastle	Australia
Shruti Sardeshmukh	University of South Australia	Australia
Evan Douglas	University of Sunshine Coast	Australia
Retha Scheepers	University of Sunshine Coast	Australia
Colin Jones	University of Tasmania	Australia
Mohammed Shamsul Karim	International Islamic University Chittagong	Bangladesh
Habrizah Hussin	Universiti Brunei Darussalam	Brunei
Dingkun Ge	China Europe International Business School	China
Aska Hsu	Chinese Business Incubation Association	China
Yun Chen	Hubei University of Economics	China
Jingwei Li	Nankai University	China
Richard Chan	Peking University HSBC School	China
Yonggui Wang	University of International Business and Economics	China
Appasamy Selvarasu	Annamalai University	India
Nilay Yajnik	Narsee Monjee Institute of Management	India
Vijay Wani	National Institute of Technology	India
Sajal Kabiraj	University of Mumbai	India
J. Philip	Xavier Institute of Management & Entrepreneurship	India
Arief Budiman	Lambung Mangkurat University	Indonesia
Yvonne	Trisakti International Business School	Indonesia
Yohannes Somawiharja	Universitas Ciputra	Indonesia
Ibnu Widiyanto	Universitas Diponegoro	Indonesia
Phil Inje Chang	Keio University	Japan
Mohamed Norisaifulruddin b Mohd Bakri	MARA University of Technology Terengganu	Malaysia

Izaidin Abdul Majidd	Universiti Teknikal Malaysia Melaka	Malaysia
Amran Awang	Universiti Teknologi	Malaysia
Mohamad Ali Fulazzaky	Universiti Tun Hussein Onn	Malaysia
Edwin Bernal	Ateneo de Naga University	Philippines
Nolan Belaro	Bicol University	Philippines
Elvira O Daza	Central Luzon State University	Philippines
Emilina Sarreal	De La Salle University	Philippines
Ellen Soriano	University of Asia & Pacific	Philippines
Elvira Zamora	University of Philippines Diliman	Philippines
Hong Kim	Hoseo University	South Korea
Dohyeon Kim	Kookmin University	South Korea
Tsai Fu-Sheng	Cheng Shiu University	Taiwan
Benjamin Yuan	Natl Chiao Tung University	Taiwan
Michael B.H. Lin	Natl Chiao Tung University	Taiwan
Michael Lin	Natl Chiao Tung University	Taiwan
Enzo Bivona	Kasetsart University	Thailand
AFRICAN REGION		
Aziz Nafa	CREAD	Algeria
Said Cheradou	MDI Alger Business School	Algeria
Mohamed Chetti	University of Tizi-Ouzou	Algeria
Dorothy Mpabanga	University of Botswana	Botswana
Joel Bayubasire	University of Cepromec (ISM/Bujumbura)	Burundi
Joel Bayubasire	University of CEPROMAD - UNIC/Bujumbura	Burundi
Molem Sama	University of Buea	Cameroon
Fomba Emmanuel	University of Dschang	Cameroon
Ulf Richter	International University of Grand Bassam	Cote d'Ivoire
Joel Bayubasire	Institut Supérieur de Développement Rural (ISDR/Bukavu)	Democratic Republic of Congo
Joel Bayubasire	Institut Supérieur de Management (ISTM/Bukavu)	Democratic Republic of Congo
Joel Bayubasire	Institut Supérieur d'Études Commerciales et Financières (ISECOF/Bukavu)	Democratic Republic of Congo
Joel Bayubasire	Université Catholique de Bukavu	Democratic Republic of Congo
Joel Bayubasire	Université Évangélique en Afrique	Democratic Republic of Congo
Joel Bayubasire	Université Ouverte de Bukavu	Democratic Republic of Congo

Joel Bayubasire	University of Cepromec (ISM/Bukavu)	Democratic Republic of Congo
David Kirby	British University in Egypt	Egypt
Yohannes Workaferahu	Addis Ababa University	Ethiopia
Samuel Buame	University of Ghana	Ghana
Evance Abeka	Maseno University	Kenya
Moses Ngoze	Masinde Mulio University of Science and Technology	Kenya
Emmanuel Nwugballa	Ebonyi State University Abakaliki	Nigeria
Isaac Akinwumi	Joseph Ayo Babalola University	Nigeria
Godwin Abu	University of Agriculture - Makurdi	Nigeria
Eniola Taiwo	University of Port Harcourt	Nigeria
Abdoulaye Diané	ISM - Dakar	Senegal
Abdihalim	Puntland State University	Somalia
Jack Wiseman	CIDA City Campus	South Africa
Lynette Louw	Rhodes University	South Africa
Edwin K. Bbenkele	University of Johannesburg	South Africa
Boris Urban	University of the Witwatersrand	South Africa
Mthuli Ncube	University of the Witwatersrand	South Africa
Rebecca Namatovu	Makerere University Business School	Uganda
MIDDLE EASTERN REGION		
Abraham Gill	Academic Center Ruppın	Israel
Sibylle Heilbrunn	Academic Center Ruppın	Israel
Avi Kay	Jerusalem College of Technology	Israel
Yusuf Sidani	American University Beirut	Lebanon
A.M. Sakthivel	Sr University College	Oman
Shahid Qureshi	Institute of Business Administration	Pakistan
Ansir Ali Rajput	Mohammad Ali Jinnah University	Pakistan
Muhammad Sharia	Al Quds University	Palestine
Ramaswamy Ganesan	King Saud University	Saudi Arabia
Murat Erogul	Zayed University	United Arab Emirates

C.2 First Email that was sent to the Entrepreneurship Education Network

The first email that Mr. Doan Winkel sent to the collaborators of the Entrepreneurship Education Network. The email was sent on the 16th of December 2010. A reminder was also sent on the 14th of January 2011.

"Good morning -

*Please look at the question below, and if your answer to it is **"Yes"** or **"I think so"**, then please reply to this email (no text needed) and we will contact you to gather further information.*

****Does your university (or any other higher education institution that you know of) offer an entrepreneurship education program where the students are expected to start a real-life venture as part of the education?****

This question is part of a research and networking project within entrepreneurship education carried out by a Swedish research team in Gothenburg, where they are mapping out all entrepreneurship educations globally of a specific kind. What they are looking for is programs at higher education institutions where the students start a real-life venture as a compulsory part of their education. This type of program is often called Venture Creation Program (VCP).

More information about the research project and a list of the Venture Creation Programs found so far can be found on the research project's webpage www.vcplist.com . You can follow the progress of the research project on the research blog also found on the webpage.

Thank you for your time,

Doan

Dr. Doan Winkel

Assistant Professor of Entrepreneurship

Illinois State University

Campus Mailbox 5580

Normal, IL 61790

(309) 438-2736"

C.3 Follow up email to the Entrepreneurship Education Network

Collaborators of the Entrepreneurship Education Network that replied on Mr. Doan Winkel's first mail were sent a follow up email by the author. Were they were asked for more information.

"Dear [name of contact],

We are contacting you because you replied on Dr. Doan Winkel's email about entrepreneurship education. We would like to start by thanking you for showing interest and responding to Dr. Doan's email.

As described in the first email, we are a Swedish research team looking for a specific kind of entrepreneurship education program where it is compulsory for the students to start a venture. We call this kind of education "Venture Creation Program". We gather from your answer to Dr Doan's e-mail that you either know of or have such a program at your institution. Now we contact you for obtaining additional information. We would like you to first answer some short questions:

**What institution/university is offering the Venture Creation Program that you know of? (Name of own/other university)*

**Who is the right person to ask additional questions about the Venture Creation Program? (name, email and phone)*

**Can you already now give us some additional information about the program [e.g. webpage, length of program, higher education level (undergraduate/graduate)]?*

*Thank you for your time,
Joakim Hallgren"*