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Becoming an Entrepreneur

An Examination of the Needs of Young Entrepreneurs

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Abstract

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This study's main purpose is to explore what young individuals need/require when becoming entrepreneurs. To do that, the views and perspectives of students, senior entrepreneurs and incubators were analyzed. This study's main contribution is to the knowledge and understanding of entrepreneurship and entrepreneurial education. Furthermore, this study has a practical application in the form of a suggestion on how to improve this study's empirical case: a new project designed by the pre-incubator office Drivhuset Uppsala. Methodologically, a qualitative research study with interviews as its main technique indicates this study's main findings and conclusions. What young individuals need/require in order to become entrepreneurs is; putting the theories they are learning or have learned into action, learning through entrepreneurship in the form of learning-by-doing and feeling the support in creating values from the entrepreneurial environment; called 'the entrepreneurial ecosystem' by one of this study's actors. Theories indicate the importance of incubators participating in entrepreneurial education in different forms. UU incubators are, by the actors of this study, not perceived to do that. These conclusions proved to be complicated and are recommended as important topics for further research. This study focuses on Uppsala and incubators connected to UU. The empirical material was analyzed with the Venture Creation in learning-by-doing and Effectuation theories, and the findings indicate that Drivhuset Uppsala should focus on venture creation programs in designing their new project.

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It is my greatest wish that the paths for entrepreneurship and for young entrepreneurs to grow will become clearer in the future and it is my belief that the dedication I have put into this work will in some way contribute to the realization of that wish.

Lastly, thank you to my participants – for giving my research your time.

With kind regards,

Sæunn Ósk Unnsteinsdóttir

Abstract

This study's main purpose is to explore what young individuals need/require when becoming entrepreneurs. To do that, the views and perspectives of students, senior entrepreneurs and incubators were analyzed. This study's main contribution is to the knowledge and understanding of entrepreneurship and entrepreneurial education. Furthermore, this study has a practical application in the form of a suggestion on how to improve this study's empirical case: a new project designed by the pre-incubator office Drivhuset Uppsala. Methodologically, a qualitative research study with interviews as its main technique indicates this study's main findings and conclusions. What young individuals need/require in order to become entrepreneurs is; putting the theories they are learning or have learned into action, learning through entrepreneurship in the form of learning-by-doing and feeling the support in creating values from the entrepreneurial environment; called 'the entrepreneurial ecosystem' by one of this study's actors. Theories indicate the importance of incubators participating in entrepreneurial education in different forms. UU incubators are, by the actors of this study, not perceived to do that. These conclusions proved to be complicated and are recommended as important topics for further research. This study focuses on Uppsala and incubators connected to UU. The empirical material was analyzed with the Venture Creation in learning-by-doing and Effectuation theories, and the findings indicate that Drivhuset Uppsala should focus on venture creation programs in designing their new project.

Keywords – incubators, entrepreneurial education, venture creation, effectuation, entrepreneurial environment, entrepreneurial ecosystem.

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Chapter 1. Introduction

Can young individuals be taught to become entrepreneurs? What is it that they need/require? These questions are becoming more and more essential within academic research. Entrepreneurship is an important argument in the context of creating more sustainable and economic growth in our society. Researchers are continuously investigating entrepreneurship and the relationship between the university, the industry and the government – known as the Triple Helix model. The types of organisations that are claimed to have grown out of the universities in those relationships have also captured the interest of researchers, who seek to investigate them further. Those organisations are driven with the universities' resources and are in this study called 'the incubators'. Their aim is to support research collaboration between the university and industry as well as to help businesses and new ventures to achieve sustainable and viable growth. The incubators are also often related to both the government and the industry, since local governments and different kinds of businesses are often financing them.

Drivhuset Uppsala[1] is an organisation, analysed in this study as one of the incubators, mainly working with supporting young entrepreneurs starting up their ventures. Drivhuset Uppsala has designed a new project in order to reach out and try to fulfil young entrepreneurs' requirements. They requested a master's student to do an investigation to help them find out how they can improve their new project. The project, which is in its development phase, connects students with senior entrepreneurs and its main aim is to increase the students' entrepreneurial capacity, as well as to realize more ideas from successful senior entrepreneurs. Drivhuset's new project was an incentive to investigate what is essential for young individuals in becoming entrepreneurs.

This study will investigate the views of three actors on what young individuals need/require in order to become entrepreneurs: incubators, students and senior entrepreneurs. Based on previous research about entrepreneurship and entrepreneurial education and this study's empirical data, collected through interviews, this study will provide practical advice on how to improve Drivhuset's new project. Furthermore, this study will contribute to the discussions and research about young entrepreneurs' needs and requirements when becoming entrepreneurs.

[1] Drivhuset Uppsala is a pre-incubator, more about 'the incubators' in chapter 3.

1.1 The problem

This section will describe the relevant issues in the field of what this study is investigating. The main researched and discussed topics are about how the university, the industry and the government can and are interacting for more growing entrepreneurship. These interactions are a challenge that researchers are focusing on in today's research. As mentioned in the introduction chapter, this study investigates three actors' views and perspectives on what young individuals need/require to become entrepreneurs. It is this study's determination that the three actors' views will contribute to solutions in how to meet those challenges.

Innovation and entrepreneurship have become fundamental terms in the debate on sustainable development and economic growth. Studies show that students and graduates have enormous potential to contribute to that debate (Hofer & Potter 2010). According to Etzkowitz (2008), universities have extended their teaching capabilities from educating individuals to shaping organizations in entrepreneurial education and incubation programs. Research argues that the learning of entrepreneurship includes different approaches - which is a challenge - and it is discussed in what way, and if universities can meet those challenges (Kirby 2004; Vincett & Farlow 2008; Rasmussen & Sørheim 2006).

In the literature about the Henry Etzkowitz triple helix model, the potential and the importance of entrepreneurial universities and entrepreneurial education is carefully surveyed. According to Etzkowitz (2008), entrepreneurship can be taught to a wide variety of persons. He also states that students are a perpetual source of potential inventors (Etzkowitz & Zhou 2007). When students matriculate, they bring new ideas with them, and when they graduate, they take those ideas to other ventures, according to a study by (Slaughter et al. 2002). This indicates the importance of the university's capacity to nurture the students' ideas while they are being educated.

> …not all agree that the university should play an entrepreneurial role. Many academics believe that the university best fulfils its mission by limiting itself to education and research, eschewing a broader role in economic and social development. According to this view, the university best fulfills the third mission by fulfilling the first two. (Etzkowitz 2008, p. 4)

As the citation above indicates, not everyone agrees on the role of the university in this context. There are many studies focusing on entrepreneurial education and how it should be taught, its importance and what kind of entrepreneurial education is most

effective. Hofer and Potter's (2010) OECD report about universities, innovation and entrepreneurship argues that mobilising entrepreneurial careers for students, enhancing their entrepreneurial skills and providing them with support for business start-ups is extremely important for their future achievements.

The OECD report (Hofer & Potter's 2010), as well as research such as Rasmussen and Sørheim (2006) and Ollila & Middleton (2011), indicates the importance of the incubators for entrepreneurial education and entrepreneurial skills.

> The triple helix as a physical device is succeeded by university-industry-government interactions that have led to the venture capital firm, the incubator, and the science park. (Etzkowitz 2008, p. 1)

As Etzkowitz points out in the citation above, incubators grew out of the universities. Incubators are proven to be extremely successful models and promoting tools for the start-up of new ventures (Bergek & Norrman 2008; Al-Mubaraki & Busler 2014). David A. Kirkby, a researcher from the University of Surrey, has argued that business schools have a role to play in entrepreneurship education, and Kirby contests in his research that learning should be transferred from the classroom to the incubators (Kirby 2004). Kirby sees incubator offices, including pre-incubators and science parks, as enterprise-teaching laboratories whereas Albert and Graynor state that "Incubators are becoming the entrepreneurial schools of tomorrow" (quoted by Kirby 2004. p. 2). The aim of incubators is to assist entrepreneurs with enterprise start-ups (OECD 1999) and they are widely known to be nurturing environments and a vitamin injection for new businesses (Bergek & Norrman 2008; Grimaldi & Grandi 2005; Mian 1996). An incubator can be defined as a manufacturer of new firms/ventures in the field of innovation and entrepreneurship.

As seen above, the students, as young individuals, are important and it is essential to focus on them and to focus on increasing their entrepreneurial capacity. The importance of incubators in the relationships with entrepreneurial education is made clear in the researchers' perspectives above; however, for this study the three actors' views and perspectives are the most essential to investigate.

1.2 Research question

As mentioned in the introduction this study will contribute to the debate about increased growth in entrepreneurship. This study will use Drivhuset Uppsala's project as an empirical case. The three actors in Drivhuset's project will give a wide perspective about the importance of what young entrepreneurs need/require when becoming entrepreneurs – which will give a wide perspective on entrepreneurial education and its importance.

The main research question to be answered is: What are the views of the three groups of actors; the students, incubators and senior entrepreneurs; on what a young individual needs/requires in order to become an entrepreneur? This question is set in order to improve the aforementioned pre-incubator's office project, which was mainly designed to increase and fulfil young individuals' requirements in becoming entrepreneurs. The reason it is important to improve Drivhuset's project is so that project in the future might contribute to increasing the young individuals' entrepreneurial capacities. Furthermore, more knowledge in the discussions about the growth in the field of entrepreneurship is essential for today's research.

1.3 The research limitations

The geographical limitation of this study is Uppsala, a big university town in Sweden. The interviewed employees or/and the administration working at the incubators are all connected to Uppsala University. The incubators are driven fully or to some extent with the resources of Uppsala University and are related to an early phase of new ventures. The senior entrepreneurs that have been interviewed work or have their base offices in Uppsala. The interviewed students are studying at Uppsala University, in entrepreneurial or innovative programs on master's level, or are active in an entrepreneurial student organisation. The emphasis is on programs within engineering and economics.

Chapter 2. Methodological Approach: a qualitative research

For this study, the most relevant methodological approach is a qualitative research. "Qualitative research is a means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem." (Creswell 2009 p. 4) An exploration and understanding is essential in making a suggestion about how to improve Drivhuset's project and in answering the following question: What are the views of the three groups of actors; the students, incubators and senior entrepreneurs; on what a young individual needs/requires in order to become an entrepreneur?

The process of qualitative research approaches consists of emerging questions and procedures, or more precisely: a) **collecting data** from the participants b) doing an **inductive analysis** of the data, both through building from particular to general themes and c) making **interpretations of the meanings of the data** (Creswell 2009). A prescription of the processes/steps of this qualitative research is based on Bryman (2011) and Creswell (2009) and is presented in Figure 1.

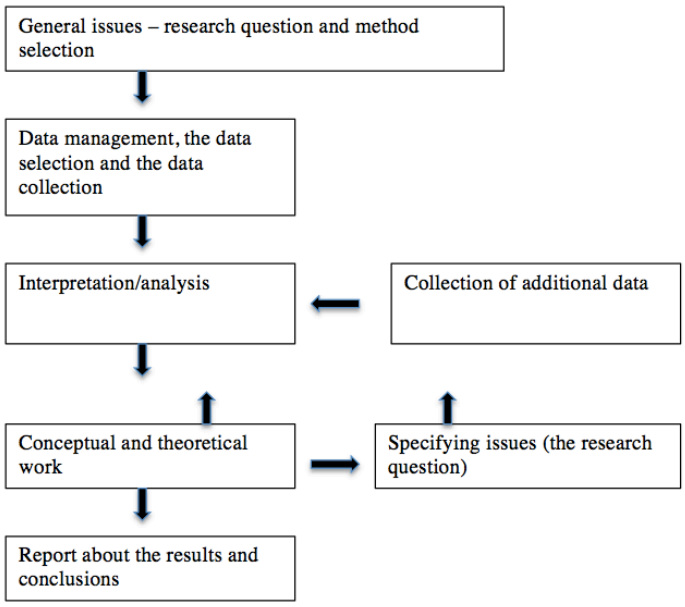

Figure 1. Outlined main steps in this qualitative study based on Bryman (2011) and Creswell (2009).

The main technique for collecting data in qualitative researches is through observations and interviews. This study will use semi-structured in-depth interviews as well as group interviews with the actors.

2.1 Data selection

In total of 16 interviews were carried out for this study whereof five were group interviews. Firstly, this study examines the incubators as organisations and their

administration and employees; secondly, it focuses on groups of students and thirdly senior entrepreneurs. The interviews took place on the premises of Uppsala University and at the incubator's offices as well as in the locale of a student organisation. The interviews were 45 to 180 minutes long, they took place from March to May in the year of 2015 and were all recorded. A participation observation took place at Drivhuset's office place. As the main data collection was from interviews, the interviewees were selected carefully.

In total five groups of students were interviewed with five to eight students in each group. Four of those group interviews were conducted with students studying master's programs at different stages and in various disciplines within the field of technology, economics and entrepreneurship. An invitation was sent to all of the students in the selected programs through social media and e-mails, stressing the importance of having no more than eight individuals in each group. The four master's programs are:

- Master programme in Industrial management and Innovation. Uppsala University, year one.
- Master programme in Industrial management and Innovation. Uppsala University, year two.
- Master programme in Business and Management, Entrepreneurship, Uppsala University, year two.
- Master programme in Industrial management and Innovation, The school of entrepreneurship, Uppsala University, year two.

According to Bryman (2011), a snowball technique is a type of convenience sample that seeks to initially connect with a small number of people relevant to the study's theme. These people are then used to come in contact with additional respondents (Bryman 2011). In the data collection phase, an active student organization was prominent. Its members' interests and initiatives in the field of entrepreneurship were interesting and brought a lot to this study. Therefore, they were considered essential to interview in one of the student group interviews in order to get their view on what young entrepreneurs need/require. The organization is:

- Entrepreneur Academy

All the students who are active in the organisation's organized activities were contacted in the same way as the master's students.

A total of five entrepreneurs were selected for this study and all of them were selected according to the snowball sample principle. The first entrepreneur that the author met was participating in an activity that was partly organized by Drivhuset Uppsala. The

entrepreneurs are prominent in the business life of Uppsala. The entrepreneurs are between 30-60 years old and all have their offices in Uppsala.

A total of six individuals from the incubators – employees and/or administration – were selected to be interviewed. The employees and/or the administration were selected based on their relevance assignments working with students and young entrepreneurs, ranging from business developers and project leaders to managers. The incubators are three organisations that are connected to Uppsala University. The incubators are driven fully or to some extent with the resources of Uppsala University and are all related to the early phase of students' or young entrepreneurs' new ventures. They are: Drivhuset Uppsala, Uppsala University Innovation (UUInnovation) and Uppsala Innovation Centre (UIC). Further information about the three organisations can be found in chapter 5.

2.2 Data collection and techniques

All analyzed data or empirical material in this study came from interviews. During the five months of investigation for this study, the author was based at Drivhuset Uppsala, working in the same office space as nine young entrepreneurs. During that time, a participation observation took place. The observation was done on nine young entrepreneurs located in Drivhuset Uppsala. Thus none of the data being used derives directly from those observations the observation were most important when analyzing the interviews. The following sections describe how the interviews and participating observation were structured as well as the interview techniques.

2.2.1 Participating observations

A participating observation is closely related to the role of ethnography. According to Bryman (2011), the ethnographer assumes a role in the social environment and the people involved in it. In participating observations the scientist is doing a certain amount of observation, but is hardly participating actively (Bryman 2011). The author did sign a confidential contract with Drivhuset and could therefore be involved in the conversations with the nine young entrepreneurs who became very important to this study. The author was able to observe and experience with them as they were learning through experiences when realizing their ideas in the world of business and therefore these five months gave the author a deeper understanding when analyzing the interviews of what young entrepreneurs need/require.

2.2.2 Semi-structured in-depth interviews

According to Bryman (2011), semi-structured interviews mean that the interviewer has a set of questions, but the order of the questions may vary and the scope for further questions can be flexible. It is important in semi-structured interviews that the researcher lays his opinions aside and listens to the interviewee's view (Creswell 2009). An in-depth interview as a technique enables an understanding of individual behaviour and opinions and how they appear in a specific context (Bryman 2011).

2.2.2.1 The incubators

Based on the theories about interviews, the incubators, employees and administration were all interviewed in semi-structured in-depth interviews. The semi-structured in-depth interviews with the incubators actors were divided into two categories: Firstly with focus on how the office works, in order to understand the incubators as an organization, and secondly with focus on exploring what the employees' and the administration's views are towards what young entrepreneurs need/require when becoming entrepreneurs.

2.2.2.2 The entrepreneurs

The entrepreneurs were also interviewed in semi-structured in-depth interviews. The focus was on understanding how they think and act as entrepreneurs, as well as on their views on what young entrepreneurs need/require. The entrepreneurs' interests and motivation in participating in Drivhuset's project was also explored.

2.2.3 Group interviews

Group interviews were organised in the same way as semi-structured interviews. According to a summary in Bryman's book, various researchers claim that there should be three to ten interviewers in each group and that the number of groups can vary from 8-55 (Bryman 2011, s. 451). Due to time limitation, it was decided that for this study the groups were to be interviewed once, and that there should be five to eight students in each group. The students were asked open-ended questions, which intends to elicit views and opinions from the participants/interviewees (Creswell 2009).

2.2.3.1 The students

The group interviews were divided into three sections. The main structure consists of keeping track of time, starting the sections with open questions and making sure that the discussions don't drift away too far from the topic to something completely unrelated. The first section consisted of; an introduction of this study's researcher; a short introduction of the aims of this study and an open discussion about incubators, their role and the students' expectations and motivations regarding them. Furthermore, an open discussion was being had about what the students need and require in order to become entrepreneurs. The second section consisted of; an introduction of other research (see the introduction chapter and incubator and innovation state of the art) and an open discussion about the students' views on the interaction of incubators in different types of programs and projects. In the third section, an introduction to this study's empirical case was given and the students were asked questions to extract their views on Drivhuset's new project.

2.3 Data analysis and interpretation

The main difficulty with a qualitative study is that it generates a large amount of datasets because it is based on interviews, observations or field researches (Bryman 2011). To analyse this large amount of data, this study uses two types of methods. Firstly, this study is based on an analytic induction, which according to Bryman (2011) is a data-analysing method where the researcher pursues universal explanations for various phenomena. Time limitation reduced this study's collection of data; however, as much data as possible was collected. Secondly, this study used the method of Content analysis, which is a systematic and replicable way to quantify the content based on categories determined in advance (Bryman 2011). A qualitative content analysis is probably the most common approach when it comes to a qualitative analysis of data. It involves a search for the underlying themes in the empirical material (Bryman 2011). For this study, however, the categories were not determined in advance except that the three actors' interviews were to be analysed separately. The analysis searched for the underlying themes and sub-themes to get the most quality out of the analysis. Coding is the starting point for most forms of qualitative data analysis (Bryman 2011). For this study coding was used when analysing the main sub-themes and themes.

The interpretation in this study was inductive, meaning that the author attempted to connect the data with theories, emerging through the hermeneutic spiral, as the

understanding of the aims of this study increased. This is done in order to develop and reformulate the ever-spiritualizing understanding in a valid and common meaning of the text (data). By using hermeneutic interpretations, the qualitative researchers learn to analyse the texts of their interviews and to look beyond the moment of the interview situation by paying attention to the contextual interpretation (Kvale & Brinkmann 2009).

2.3.1 Reliability - validity and replication

Reliability and validity are important criteria for quantitatively oriented researchers when it comes to getting a picture of the quality of a research. However, many qualitative researchers have discussed how relevant these concepts are in qualitative research. According to Bryman (2011), reliability and validity in qualitative research consists of four sum-criteria which all have an equivalent in quantitative research. Firstly, there is credibility; the study's results ensure that the research is carried out in accordance with the rules that exist as well as reporting the results to the people who are part of the social reality of the study. Secondly, it is transferability, typical in qualitative researches that involve an intensive study of a small group or individuals that have certain characteristics in common. Therefore it is often necessary to make a depth research with focus on the importance of the aspect of social reality being studied. Thirdly, there is dependability, i.e. things that assess the investigation in terms of this sub-criterion when it comes to reliability should adopt an investigative approach (auditing). This means the creation of a complete and accessible account of all phases of the research process in the problem formulation and in the selection of participants or interviewed individuals. Fourthly, there is confirmability; to be able to verify and confirm implies that the researcher – based on the realization that it is impossible to get a complete objectivity in social research, the author tries acting in good faith. It will in other words be clear that the researcher does not knowingly let personal values or theoretical orientation influence the performance of, and the conclusions of the investigation.

Bryman (2011) states, regarding replication, that qualitative research is often criticized for being too impressionist and subjective, meaning that qualitative results are too heavily based on the researcher's unsystematic perception of what is important and significant. This can also be related to the close and personal relationship that they

establish with the study subjects. This means that it is hard for a qualitative research to be replicated because its results are the author's own interpretation.

2.3.2 Bias

As followed from the section above, bias is important to discuss further. "The source of our empathy, as well as our biases, lies in our prior experiences, understandings, and worldview." (Michrina and Richards 1996, p. 29) As one uses one's bias to understand, the author's bias will always reflect on this study. This study's researcher is a student with own personal experiences of how to be a student in an innovative master's program. It was important and challenging for the author to be as objective as possible, so as to neither control the discussions in the interviews, nor the overall research. Furthermore, according to Michrina and Richards (1996), reflexion is the key to preventing the bias from leading to misunderstanding of the data. This author's bias will therefore be prevented through the reflection in the end chapters.

2.4 Ethical issues to anticipate

According to The Swedish Research Council (n.d.), Rules and Guidelines for research, it is the researchers own ultimate responsibility to see to it that his/her research is of good quality and is morally acceptable. As this research collects data from individuals, the author has to protect the research participants. The author has to earn the trust of the participants as well as promote integrity of research and make sure that misconduct, impropriety and misinterpretation will not reflect on the participants involved in this study (Creswell 2009).

This research will fulfil the four Swedish ethical principles or requirements found in Bryman's (2011) book about research methods. The four requirements are:

- **The information requirement:** All respondents interviewed in this study are informed about the purpose of the study and the purpose of their voluntary participation. They have the right to cancel the interview at any time if they want to.
- **The consent requirement:** All participants are participating voluntarily in the interviews.
- **The confidentiality:** All participants' personal data will be stored with the utmost confidentiality where anonymity, respect and caution is important.
- **Utilization requirement:** Data collected will only be used in this study.

These requirements serve the purpose of establishing standards for the relationship between researchers and participants, in order to deter and deal with ethical conflicts that may arise. The requirements can be seen as a guide rather than as regulations since the problems may vary depending on the context and occasion. The most important thing is that the researcher considers what is ethically correct in each case and uses common sense when assessing what is what.

2.4.1 Ethical dilemmas and contribution to the society

For this study the main ethical dilemmas discovered by the author are connected to analysing the data. In the interviews, individuals that are working within the incubators are representing their organisations as well as describing their own opinions. The organisations are closely connected by sharing and ordering assignments from each other and are also connected financially. To protect the research participants and to not misinterpret the participants' answers was perceived as a big challenge by the other of this study when analysing the interviews. The author valued her own ultimate responsibility to make sure this research keeps good quality and is morally acceptable. The author experienced ethical dilemmas concerning certain statements from the participants. Many of those statements were not used in this study, thus they did not affect the main findings. Another ethical dilemma was to fulfil both the requirements of the academic methods and of Drivhuset's requested investigation. However, this challenge was solved between the author and Drivhuset throughout the investigation.

The author cannot identify any ethical problems of this research concerning others, because the results or main findings is the author's own interpretation. The investigation of this study will, however, contribute to the society with the view of the three actors on what young individuals need/require when becoming entrepreneurs. Their views, synthesised as main findings, will only contribute to better/more suitable ways of educating young individuals by fulfilling their needs and requirements. Political dilemmas were identified for this study, especially in the relation to the incubators. Those dilemmas were handled with the utmost care, considering this author's ultimate responsibility to hand in a good research. Those political dilemmas did not effect this research's main findings. For the society, this study's main findings will also contribute positively to more entrepreneurship and economic growth.

Chapter 3. Literature review: the innovation, entrepreneurship and incubators - research state of the art

Innovation can arise from many different sources and begins with the generation of new ideas that is according Schilling (2013) termed as creativity. Who is creative and who comes up with ideas? Can entrepreneurship and innovation be taught to students? According to Gorman et al. (1997), entrepreneurship can be taught and the teaching should be enhanced through active participation. Etzkowitz (2008) also states that entrepreneurship can be taught to a wide variety of persons and he claims that students are a perpetual source of potential inventors. The historically well-known economist Joseph Schumpeter argues that innovation embodies the total processes of the application of an innovation, and according to Etzkowitz and Zhou (2007, p. 9), the key role of an entrepreneur is seizing both technological and marketing opportunities. As innovation embodies the total process of innovation, different individuals can work within one innovation. Innovation as a term has become more and more widespread in the concept of technical and social development in the rapidly growing globalized marketplace. Innovation can be found within most disciplines; for example, a technical innovation is defined as: "The act of introducing a new device, method, or material for application to commercial or practical objectives." (Schilling 2013, p. 1)

According to Schilling (2013), technical innovation can be either a process or a product. Product and process innovation can then be categorized into radical or incremental innovation. Innovation can also be classified as competence enhancing versus competence destroying (Schilling 2013). This is connected to innovation that builds on existing knowledge or skills. In today's literature, there is a large number of papers about entrepreneurs and entrepreneurship where the researchers are steadily trying to increase their understanding. This study is no exception. The following sections seek to describe the term entrepreneurship – what is entrepreneurial, and who is an entrepreneur?

3.1 Entrepreneurship and entrepreneurs

In exploring what entrepreneurship is and who is an entrepreneur, the statement below can be one of many definitions:

> We argue that entrepreneurship is best conceived as a dynamic problem-solving process in which entrepreneurs learn in the light of experience and feedback from the market. (Harper 2008, p. 613)

A traditional concept of entrepreneurship assumes that the entrepreneur is an individual person rather than an organization and that the entrepreneur takes great risks to start a new activity (Etzkowitz 2013). In Harper's (2008) research, there is a summary of theories and arguments about whether entrepreneurship is about individuals or teams. According to Harper, the leading economic theories of entrepreneurship between the years 1934-2000 focused on the entrepreneurs as individuals and not as teams. Harper's (2008) study *Towards a Theory of Entrepreneurial Teams* indicates that there is little progress in developing a comprehensive theory of entrepreneurial teams. In today's literature, there is still little progress in creating that theory. However, researchers are continuously investigating entrepreneurial teams and their functions, e.g. Kakarika (2013) who is researching the importance of diversity in entrepreneurial teams and Mol et al. (2015) who focus on the cognition of teams. According to the literature, the theories about entrepreneurship are changing.

> In the 1980s, IBM was advertising, ''Great minds think alike,'' which soon changed to: ''Great minds think unalike.'' The point is clear enough: diversity helps companies grow. Thus, creating the ''right mix'' of people within a startup is key for success and entrepreneurial team diversity is one of the primary issues that modern entrepreneurs face. (Kakarika 2013, p. 31)

The citation above and today's literature indicate that the focus is moving towards entrepreneurial teams, not only focusing on the entrepreneur as an individual: "…most entrepreneurs are members of groups whose complementary skills and resources are required to make an entrepreneurial act possible" (Etzkowitz 2013, p. 492).

It is also known that sometimes the collective of the team is hidden, and the attention is focused on one of the entrepreneurs in the group. This is called an organizational phenomenon. Etzkowitz (2013) uses Steve Jobs, Steve Wozniak and Mark Markkula as an example of a group where this has been the case. Jobs is the most well-known individual and is called the foregrounded; Wozniak is labelled the backgrounded, even

though he was the engineer behind the technology, and Markkula the early-retired semi-conductor who has virtually been forgotten in the history of Apple.

To sum up this introduction about entrepreneurship and entrepreneurs, one could say that people who are willing or able to become entrepreneurs individually are also able to do so collectively (Etzkowitz 2013). For this study this is important, since the empirical case is about the senior entrepreneurs' and the students' team-work. Furthermore, whether entrepreneurs work as individuals or in teams, there is another important aspect – is everyone entrepreneurial?

3.1.1. What makes entrepreneurs entrepreneurial?

Among others, one researcher, Sara D. Sarasvathy, attempts to answer the question about what makes entrepreneurs entrepreneurial. In 1997, Sarasvathy travelled across 17 states in the USA for several months, meeting up with 30 founders of companies. The idea with Sarasvathy's study was not only to interview the entrepreneurs, but also to get behind their stories and to understand how they transform an idea into a company (Sarasvathy 2001b). Sarasvathy focused on how the entrepreneurs were reasoning about specific problems when they were working on transforming an idea into an enduring firm. Sarasvathy's conclusions mainly show us the way an entrepreneur reasons. Entrepreneurs prefer to use an effectual reasoning, meaning that effectual is the opposite of causal or predictive reasoning (Sarasvathy 2001b).

> Effectual reasoning, however, does not begin with a specific goal. Instead, it begins with a given set of means and allows goals to emerge contingently over time from the varied imagination and diverse aspirations of the founders and the people they interact with. (Sarasvathy 2001b, p. 2)

All entrepreneurs begin with three categories of means and not with a specific goal (see the citation above). These means are: "(1) Who they are – their traits, tastes and abilities; (2) What they know – their education, training, expertise, and experience; and, (3) whom they know – their social and personal network." (Sarasvathy 2001b, p. 3). The means are, according to Sarasvathy (2001b), very important, because they are the entrepreneurs' first thoughts. Entrepreneurs most often start with the persons that are closest to them, and then almost directly move into action without meticulous planning.

> Entrepreneurs are entrepreneurial, as differentiated from managerial or strategic, because they think effectually; they believe in a yet-to-be-made future that can substantially be shaped by human action; and they realize that to the extent that this human action can

> control the future, they need not expend energies trying to predict it. (Sarasvathy, 2001b p. 9).

Sarasvathy's theory about effectuation includes much more details about entrepreneurs and entrepreneurship, which are better described in next section and in chapter 4.2, *Effectuation: The theory in action*. The effectuation theory is well-known in entrepreneurship literature and is today a widely used teaching material within the field of entrepreneurship. In 2011, five researchers Read et al. (2011) including Sarasvathy wrote a textbook called *Effectual Entrepreneurship* based on the theory of effectuation and their academic researches and papers throughout the years. Read et al. write in their introduction chapter that "…there is a science to entrepreneurship – a common logic we have observed in expert entrepreneurs across industries, geographies, and time." According to the researchers above, entrepreneurship can be taught using the knowledge of how other entrepreneurs think and act.

According to Read et al. (2011), the main issues that hold individuals back from starting a new venture are: the lack of idea, money or entrepreneurial skills as well as the fear of failure. Read and his colleagues argue in their book about effectual entrepreneurship that the fact is that good ideas are cheap and plentiful – it is what you do with them that matters. Furthermore, who can judge if an idea is good or bad? Successful entrepreneurs and experienced investors argue that the only way to examine if an idea is a good or bad business opportunity is to implement the idea (Read et al. 2011). For this study, the effectuation approach is important; therefore the next section will go deeper into what has been written about the theory.

3.1.2 Effectuation

To understand how expert entrepreneurs think, it is extremely important to understand what makes entrepreneurs entrepreneurial. For expert entrepreneurs, there are differences in causal and effectual reasoning when it comes to making assumptions about the future. Causal reasoning is based on the following logic: "To the extent that we can predict the future, we can control it" (Sarasvathy, 2001b p. 6). This way of thinking, that the future can be predicted, is the reason academics, business experts and practitioners spend their time planning and trying to develop predictive models about the future. Effectual reasoning, on the other hand, is based on another logic: "To the extent that we can control the future, we do not need to predict it" (Sarasvathy, 2001b p. 6). Sarasvathy argues that people often separate these two logics; they either use causal

or effectual thinking. However, some people, such as "the best entrepreneurs" (2001b, p. 3) are capable of using the both ways of reasoning depending on the circumstances they are in (Sarasvathy 2001b). To describe the difference further, one can say that in causal reasoning the goals are given and the end is predicted. In effectual reasoning, on the other hand, there are no goals, only given means (actual means) and the end is "imagination". The ends in this context mean new ways or new opportunities instead of pre-determined given goals and predicted ends.

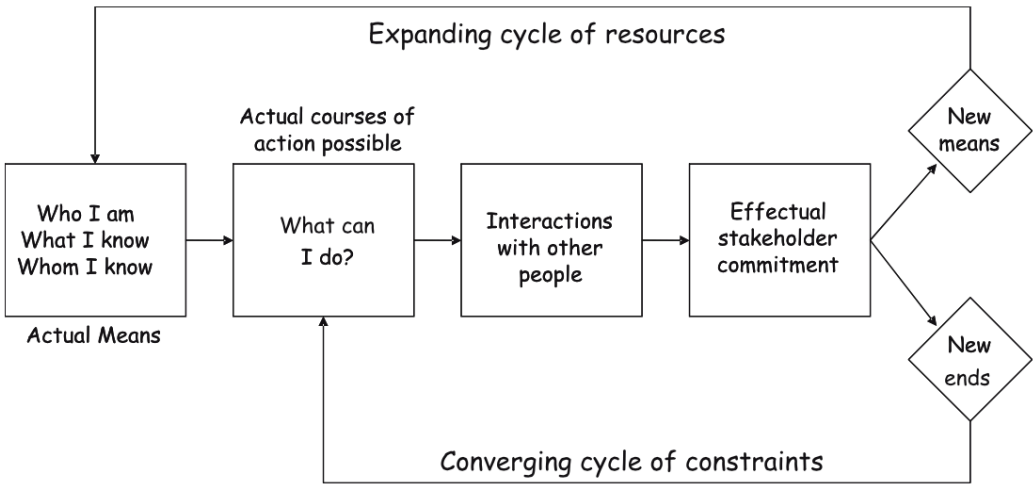

Figure 2 "Illustrates the key components of the entrepreneurial process, viewed through the lens of effectuation" (Dew & Sarasvathy, 2007 p. 276)

Figure 2 illustrates the key components of the entrepreneurial process through the lens of effectuation, or how an entrepreneur uses effectual reasoning. More examples of how an entrepreneur uses the effectuation theory are given in the theoretical approach chapter, *The Effectuation Theory in Action*. As the researchers quoted in this study have mentioned, entrepreneurship can be taught; the next relevant topic to focus on is what the researchers have to say about entrepreneurial education.

3.2 Entrepreneurial education

Entrepreneurship education has grown explosively and has been studied with different approaches, with focus on educational styles and methods within the entrepreneurship discipline (Mwasalwiba 2010). "The term entrepreneurship education can be interpreted in two ways; either learning about entrepreneurship as a phenomenon, or learning useful skills in order to become an entrepreneur." (Rasmussen & Sørheim, 2006, p. 186) This study follows Rasmussen and Sørheim's citation and uses Read et al (2011) as well as

Sarasvathy's theory about effectuation to interpret entrepreneurship and entrepreneurs as a phenomenon. According to Gorman et al. (1997), the skills and attitudes for entrepreneurial action can be taught. Furthermore, this study uses the researches introduced in the next sections to examine different ways of teaching entrepreneurship.

3.2.1 Learning through entrepreneurship

The scholar David A. Kirby argues that an effective way to learn entrepreneurship is through entrepreneurship (Kirby 2004). In Kirby's research, he introduces a model called the Surrey model that aims to show the importance of incubators (including pre-incubators and science parks) in the entrepreneurial education. The Surrey model indicates that a centre (incubator) educates its members through a programme of action-based learning that deals with real problems. The members (individuals) take ownership and/or responsibility for their own learning in the processes with help from tutors (mentors) instead of traditional lectures. The conclusion of the research about the Surrey model is that it indicates that entrepreneurial education needs to be transferred from the classroom to the incubators. Further arguments about this transfer

are hard to find in the literature, but a great number of research can be found about action-based and venture creation learning in the field of entrepreneurship education, where incubators are often included. According to the researcher David A. Kirby,

> There is increasing interest in attempting to teach not only "about entrepreneurship" nor even "for entrepreneurship", but also "through entrepreneurship": using the new venture creation process to help students acquire a range of both business understanding and transferable skills and competencies. (quoted by Vincett & Farlow 2008, p. 274)

A case study from 2006 presents five Swedish universities and their action-based activities. The case study was done by two researchers from the Norwegian Universtiy of Science and Technology in Trondheim, Norway, and data was collected from the following universities: Chalmers University of Technology, Jönköping International Business School, Linköping University, Mälardalen University and The School of Economics and Commercial Law at Gothenburg University. Their research indicates that there is a need for competent individuals to manage projects and to become entrepreneurs in our society (Rasmussen & Sørheim 2006). The case study focuses on how universities can educate successful entrepreneurs, in order to stimulate entrepreneurship in general.

> Universities can address this need by increasing the motivation and competence of their graduates to become key persons in innovative and entrepreneurial activity. (Rasmussen & Sørheim 2006, p. 185)

The Rasmussen and Sørheim case study indicates that entrepreneurship education is focusing less on teaching students in classrooms and increasingly on learning-by-doing and more action-based education. The researches above indicate the importance of students experiencing for themselves through learning-by-doing, and the importance of supporting their activities.

An OECD report (Hofer & Potter 2010) about universities, innovation and entrepreneurship follows the concept of learning through entrepreneurship. Furthermore, it indicates the importance of mobilising entrepreneurial careers for students and enhancing their entrepreneurial skills. The OECD report argues that providing the students with support for business start-ups is also extremely important for their future achievements. The OECD rapport focuses on the support from the universities, in the form of strategies and infrastructure, in 20 different universities in Germany, England, Finland, France, Poland, South Africa and the United States (Hofer & Potter 2010). The report chooses out of the 20 universities and then demonstrates the initiatives for good practice in a criteria list that consists of: strategy, resources, support infrastructure, entrepreneurship education, start-up support and evaluation. For this study, the results concerning entrepreneurship education and start-up support are the most relevant. In the OECD examples, a support organisation (e.g. an incubator) is used in almost all of the cases.

3.2.2 Experiential learning in entrepreneurial education

In Sweden there is a type of organisation that focuses on young entrepreneurs when they are in high school. According to their web site, (Ung Företagsamhet n.d.), Ung Företagsamhet (UF) is a non-profit, independent educational organization with the objective of working with schools to introduce entrepreneurship and a committed business to the education system. UF gives children in elementary and high school opportunities to practice and develop their creativity, enterprise and their entrepreneurship. The organization is found all over Sweden and has approximately 100 employees who help students, teachers and school leaders work within the idea of increasing entrepreneurship. The aim of UF is to give young people a belief in their own enterprise by combining theory and practice in an inspiring and fun way, all done by the

school. This brings young people into contact with the industry and enterprises. This is important, since the system in elementary and high school is encouraging students to start their own enterprises in the form of action-based learning. Ollila and Middleton (2011) state in their research that many researchers analyse entrepreneurs to be action-oriented. Therefore, entrepreneurial educations are adapting experiential learning processes in their programs.

An example of entrepreneurial activities and experiential learning in higher-level education is Vincett and Farlow's (2008) study. They did their research in the School of Business and Economics of Wilfrid Laurier University in Canada, in the year of 2008. They studied entrepreneurship education by letting students experience entrepreneurship through actually being entrepreneurs. Their study lets the students be in real connection with the stakeholders, and the students had to start running their businesses within the university course structure. Vincett and Farlow's (2008) study had successful outcomes. Entrepreneurial behaviour was learned through that the students were discovering and experiencing for themselves. The theory about venture creation is becoming more and more present in today's research as the researches below indicate.

3.2.2.1 Venture creation

According to Lackéus and Middleton (2015), venture creation is a pedagogic foundation and a designed program. Venture creation programs (VCP) are defined as:

> "Entrepreneurship education programs which utilize the on-going creation of a real-life venture as the primary learning vessel (thus involving venture creation as part of the formal curriculum), including intention to incorporate." (Lackéus & Middelton Willams 2015, p. 50)

Lackéus and Middleton's (2011) paper investigates six selected VCPs in Europe, North America and the Asia-Pacific region. They indicate the importance of team focus and of having a network of individuals who act as mentors, as well as rules about the ownership structure and the funding of associates (Lackéus & Middleton 2011). VCPs stress the importance of connecting with organisations such as incubators, TTOs and business networks both inside and outside the university, especially in educational settings (Lackéus & Middleton 2011). Ollila and Middleton's (2011) study, based on Chalmers School of Entrepreneurship indicates that the Venture creation approach – integrating university entrepreneurship and entrepreneurial education – contributes to economic development and stimulates entrepreneurial behaviour.

Lackéus and Middleton's further studies (2015) focuses deeper on how entrepreneurship programs use real-life venture creation in bridging the gap between entrepreneurial education and technology transfer inside the university environment. Students are the lead driving force in Lackéus and Middleton's studies. One of their studies is based on a two year investigation of 18 VCPs and their main result is that "All of the programs have successfully facilitated creation of new firms." (Lackéus & Middelton Willams 2015, p. 54) Their findings result in five principles for VCPs, namely: 1) Targeting and selecting the students 2) Creating the start-up teams 3) Collaborating with external actors 4) Designing the learning environment 5) Developing entrepreneurial attitudes. Lackéus and Middleton (2015) quote a European Commission report from 2012 about the *Effects and Impacts of Entrepreneurship Programs in Higher Education*;

> Common for most of the ventures from CSE [Chalmers School of Entrepreneurship] is that their initial ideas would have been too early or too vague to be accepted by traditional incubators. This means that the CSE model represents a novel means to create value that would never have been created otherwise. (Quoted by Lackéus and Middleton 2015, p. 50)

The citation above indicates the importance of incubator offices. Access to an incubator's organisation and its expertise is an important resource for the creation of new ventures in the form of business and technical assistance (Scillitoe and Chakrabarti 2010; Ollila and Middleton 2011).

For this study, the actor, 'the incubator', grew out of the university (Etzkowitz 2008). What is the incubators role? How does the collaboration work between the university and the incubators? Furthermore, what makes a university entrepreneurial?

3.3 Entrepreneurial Universities and incubation

According to Etzkowitz (2008), a university is entrepreneurial when it has, among other things (see below), the ability to commercialize its researches. For this study, it is essential to hold forth that Uppsala University is an example of an entrepreneurial university (Baraldi et al. 2011). Uppsala University is collaborating with different organizations in order to commercialize its researches. Within those organizations three of them are relevant for this study (see section 5.1).

> The entrepreneurial university incorporates the teaching and research academic models and takes them to the next stage of development, integrating forward and reverse linear models into a renewed 'social contract' between the university and the larger society, for creating economic and social enterprises as the quid pro quo for large-scale funding of the academic enterprise. (Etzkowitz 2013, p. 507)

According to Etzkowitz (2008, p. 27), an entrepreneurial university has to have: "1) an academic leadership to be able to formulate and implement a strategic vision 2) a legal control over academic resources, that includes physical property, such as university buildings, and intellectual property, emanating from research 3) an organizational capacity to transfer technology through patenting licensing and incubation 4) an entrepreneurial ethos among administrators, faculty and students." Etzkowitz (2008) states that an entrepreneurial university is neither subordinated to the government nor the industry. An entrepreneurial university increases its entrepreneurial activities in relation to research commercialization. Many topics are being discussed in Etzkowitz's studies about entrepreneurial universities. The most relevant part for this study is the discussion of the concept of the *entrepreneurial university,* meaning a university that is modernizing itself, in that it has become more and more active in social development. Incubator offices are organizations that are essential in bridging the opportunities between the university and the industry, therefore being active in social development. This is related to the 'third mission', which is a formal obligation to interact with surrounding society and economic life (Asplund & Nordman 1999). Furthermore, even if the role and the assignment of the incubator is stated in the literature, there is still an on-going discussion about its purposes regarding entrepreneurial education.

> A transformation of the university is occurring in education from training individuals to shaping organizations. This transition has been more difficult to discern since it typically takes place in academic contexts, such as incubators, which have been viewed as part of the 'third mission' ratter than as part of the educational function of the university. (Etzkowitz 2013, p. 492)

In this study, as seen in following sections, an incubator is defined as an organisation that is driven from the university resources and is related to the early phase of a new life venture. By being related to the early phases the incubators are interacting with the surrounding society. However, what is an incubator, what is its main aims and is it or is it not related to entrepreneurial education?

3.3.1 What is an incubator?

To conceptualize the word 'incubator', it can be said that an incubator is an entrepreneurial firm that is bridging innovation processes at an early stage by infusing them with resources and at the same time containing the cost of their potential failure (Hackett & Dilts 2004). The word 'incubator' is commonly used to denote a heterogeneous group of organisations that all work within new ventures, such as

different types of incubators offices, pre- incubators offices as well as technical transfer offices (TTOs) (Scillitoe & Chakrabarti 2010).

The first incubator was formed in Batavia, New York in 1959 (Brown et al. 2000). According to the researcher Sarfraz A. Mian American universities started in the early 1980s to support the development of innovative businesses by using incubators as a tool for new venture creations (Mian 1997). Europe followed America, and in 1984, the European Commission set up the first Business Innovation Centres (BICs) (Grimaldi & Grandi 2005). Throughout the development of incubators, they have been identified as: Business Innovation Centres (BICs), University Business Incubators (UBIs), Corporate Private Incubators (CPIs) and Independent Private Incubators (IPIs) (Grimaldi & Grandi 2005). The incubators in this study are, according to Grimaldi and Grandi's study, UBIs.

> UBIs are institutions that provide support and services to new knowledge-based ventures; they are similar to traditional BICs but they place more emphasis on the transfer of scientific and technological knowledge from universities to companies. Interest in university business incubators stems from the significant potential of the concept, which holds out the possibility of linking technology, capital, and know-how to leverage entrepreneurial talent and speed the commercialization of technology by nurturing new knowledge-based ventures. (Grimaldi & Grandi 2005, p. 112).

In the literature, the concept 'incubator' is not always identified as belonging to one of the categories mentioned above; however, incubation is what most researchers relate to the early phase of a venture's life (Aernoudt 2004; Bhabra-Remedio & Cornelius 2003; Grimaldi & Grandi 2005; Hackett and Dilts 2004; Bergek & Norrman 2008). According to the Swedish Incubators and Science Parks (SISP), the incubator provides entrepreneurs with; active and appropriate management support; financial, technical and commercial networks; a creative growth environment with associated office services. These definitions of what the incubators provide are examined throughout the literature by researchers such as: (Hackett & Dilts 2004; Mian 1996; Grimaldi & Grandi 2005). Annually, Swedish incubators and Science Parks evaluate more than 4500 business ideas. In Sweden, the incubators were established in the 1970's, inspired by the American model, i.e. they established themselves with universities as a base. Today incubators are a natural part of many international universities (Swedish Incubators & Science Parks n.d.). According to SISP, Uppsala Innovation Centre (UIC) is the only incubator office in Uppsala.

Hackett & Dilts (2004) emphasize the importance of the network of the incubators for the new venture creation. It consists of: "…the incubator manager and staff, incubator advisory board, fellow incubatee companies and employees, local universities and university community members, industry contacts, and professional services providers such as lawyers, accountants, consultants, marketing specialists, venture capitalists, angel investors, and volunteers." (Hackett & Dilts 2004, p. 41)

This study's concludes, in accordance with the literature, that pre-incubators are related to students. A pre-incubator is a creative centre or a non-profit organisation at a university where concepts are tried. It is also a place where individuals can get an environment (or a work station) to explore the potential of their ideas (Rasmussen & Sørheim 2006; Kirby 2004; Kirby 2006). In the early phase of a new venture, the innovations or ideas are undeveloped and it is the incubators' role to help the innovations or ideas to turn into viable companies (Bergek & Norrman 2008).

3.4 Incubators as teaching laboratories

According to the researcher David A. Kirby (2004; 2006), incubators, pre-incubators and science parks can been seen as teaching laboratories. Kirby argues that moving entrepreneurial education from the classroom to the incubators will give more real approaches to the entrepreneurial education. Kirby (2004) argues that a modern incubator[2] focuses more on the processes of the incubation and both virtualizes and utilizes the benefits of modern communication technology. Furthermore, it acts equally towards the new ventures with an emphasis on training, mentoring and the creation of what Kirby (2004) refers to as a learning environment. In the Surrey model, presented in Kirby's study, entrepreneurial education is tailored to the needs of individuals, who take ownership of and responsibility for their own learning. In that learning process, tutors in the form of mentors become the organizers of learning rather than the sources of information. The student's journey of discovering is the main challenge when becoming an entrepreneur (Kirby 2004).

Further arguments about incubators as teaching laboratories are hard to find in the literature. According to the citation below, the incubators are, however, essential in the development of entrepreneurship.

[2] A modern incubator can be analysed as the second generation of incubators as they are today.

> "Bringing entrepreneurial education together with incubation at the university and letting students create a venture as a part of their entrepreneurial education is, in this paper, proposed to be a successful way to develop entrepreneurs as well as new companies, because it incorporates the context of the real business world" (Ollila & Middleton 2011, p. 164)

Whether incubators are teaching laboratories or not they are proven to be important. The researchers continue by asking whether university incubation matters and in that case why. This is one of the questions in Lundqvist' (2014) research, *The Importance of Surrogate Entrepreneurship for Incubated Swedish Technology Ventures.* That research investigates how Swedish universities and their incubators or technology transfer offices engage in the entrepreneurial team formation of technology ventures. The focus is on a surrogate entrepreneur, who is not one of the original founders, and how he/she engages in "giving birth" to an initiated venture (Lundqvist 2014). Lundqvist's research indicate that surrogate ventures[3] perform significantly better in terms of revenue and growth. The case in Lundqvist's research is the Chalmers School of Entrepreneurship and their incubator, *Chalmers Encubator*.

> All school of entrepreneurship/Encubator ventures have teams of 2–3 master students appointed as surrogate entrepreneurs to develop promising early-stage technology transfer ideas together with the idea providers and specially recruited venture boards. Apart from attending a full-time action-based education, focusing on early stage venture creation, these student surrogate entrepreneurs work voluntarily under a contractually secured incentive which stipulates how they will become shareholders if the venture is incorporated after graduation. Idea providers currently come from all over Sweden and internationally. Increasingly, Encubator also attracts corporate spin-offs. These, together with university spin-offs and independent idea providers, all desire an entrepreneurial driving force to be added to the venture from the start, through the school and Encubator. (Lundqvist 2014, p. 98).

This example is important for this study, because there are similarities between the structure of the Chalmers School of Entrepreneurship and this research's empirical case. However, the following chapters have carefully reviewed the research state of the art for innovation, entrepreneurship and entrepreneurship education as well as incubation.

[3] Surrogate venture is defined as venture where the incubator has helped recruit an entrepreneur, regardless of when, why and how this happened. (Lundqvist 2014)

Chapter 4. Theoretical approach

This study's main theories have been chosen bases on a literature review. As Etzkowitz (2008) and others have stated, entrepreneurship can be taught to a wide variety of persons. Furthermore, personality traits and individual capacities are argued not to be the key drivers of successful start-ups or entrepreneurship. The key to creating successful businesses is providing the necessary start-up support infrastructure (Hofer & Potter 2010). However, the Effectuation theory has stated that entrepreneurs think and act differently than other individuals. This, in combination with the support infrastructure, makes it even more interesting to analyse the empirics in relation to the the theories. The Rasmussen and Sørheim (2006) research about action-based activities, the Lackéus and Middleton (2011; 2015) research about VCPs and Vincett and Farlow's (2008) research about their Start-a-Business program provide us with examples of that type of start-up support infrastructure. The researches mentioned above also show that entrepreneurship education focuses on learning-by-doing and action-based activities in a group setting and in a network context. This indicates that not only the start-up infrastructure such as incubators, but also hands-on experiences in the form of learning-by-doing education, is effective when it comes to entrepreneurship education.

In 1979, Yuichiro Anzai and Herbert A. Simon proposed a theory, *Learning By Doing,* presenting a mode of procedure that enables a student to learn while engaged in solving problems. The theory is based on the processes that are involved in solving tasks and the skills a person acquires when performing the task-solving (Anzai & Simon 1979). This problem-solving theory can therefore be much related to entrepreneurship, as will be shown in the following chapters.

Action-based learning was first developed as a method for management and development (Bourner et al. 2000). In today's literature, action-based learning, in terms of learning-by-doing, is argued to be the most common theory for entrepreneurial education.

> Entrepreneurship education has traditionally focused on teaching individuals, but many initiatives are increasingly becoming more action-oriented, emphasizing learning by doing. (Rasmussen & Sørheim 2006, p. 185)

To analyse this study's data, and to connect that data to this study's empirical case, the main theories that will be used are: action-based learning or learning-by-doing (Rasmussen & Sørheim 2006; Vincett & Farlow 2008; Lackéus & Middleton 2011;

2015; Ollila & Middleton 2011) and effectuation (Sara Sarasvathy 2001a; Sara Sarasvathy, 2001b; Dew et al. 2009).

4.1 Learning-by-doing: the theory in action

Vincett & Farlow's (2008) study focuses on the creation of new ventures, and the researchers created a program called Start-a-Business (SaB) which consists of two courses. The first course was a workshop, where the participants received an individual mentoring and support in researching, adapting, evaluating, and optimizing their own business ideas. "Everything in the workshop is aimed at assisting participants to be entrepreneurs, rather than students: there are no academic exercises, no case studies, tests, or examinations, and very few lectures"(Vincett & Farlow 2008).

The second course was in the form of incubation, where the participants start running their businesses. According to Vincett and Farlow (2008), the most common method in entrepreneurship teaching is that the courses are project-based and that the students work as teams with the main purpose of producing a business plan. The aim is to follow and run the businesses through their created business plans for a certain period, and then close them. This teaching method is reviewed and criticised by one of the researchers above, because the students do not perceive the business as real, and therefore are not committed to the idea of the business.

According to Vincett and Farlow, "Good ideas cannot be invented to order" (Vincett & Farlow 2008). If they are, the students don't build the commitment and give the business idea little or no time and incentive. This resulted in that the created business plan for the business idea failed. The most important thing, according to the theories of venture creation, is that the students experience the entrepreneurial life and commitment to their businesses ideas, instead of pretending to be entrepreneurs with preconceived businesses ideas that come from others than themselves. The acceptance of ambiguity and uncertainty is essential for the entrepreneurship to feel real. Therefore, the planning of the idea/business is an important process (Vincett & Farlow 2008). Planning, time pressure and the student's direct contacts with the outside community are also essential in the process of creating a new venture.

In a market research, the students reach out to an outsider (outside the course/university) and validate their ideas with the outsider, often with the result that their ideas modify. The outside contacts are, according to Vincett & Farlow's (2008) study, the following: potential customers, competitors, suppliers, existing entrepreneurs, people running

related businesses, investors, bankers and family and friends. From the market research with semi-quantitative studies of possible sales levels and the acceptable prices and costs, the most essential lessons for the entrepreneurial mindset can be learned (Vincett & Farlow 2008).

Obstacles that follow from appropriate efforts are not treated like failures; rather, the students are encouraged to evaluate their businesses with complete honesty and with an open mind for both positive and negative inputs, i.e. to be "just as any entrepreneur should be" (Vincett & Farlow 2008, p. 280). Another interesting aspect in Vincett and Farlow's (2008) study is that in the beginning of their Start-a-Business program, the requirement was that the so-called founders, i.e. the students, were seriously interested in pursuing their business ideas after graduation. The second course is the incubator, where outside interest has been raised in a special funding for launching the ventures or businesses. The incubator course is in the form of a teaching laboratory within a Science Park that is very similar to Kirby's (2004; 2006) idea of an incubator (see chapter 3.4).

4.2 Effectuation: the theory in action

In the process of the effectual reasoning, as mentioned in chapter 3.1.2, the entrepreneurs begin with three categories of actual means, also presented in Figure 3: "(1) Who they are – their traits, tastes and abilities; (2) What they know – their education, training, expertise, and experience; and, (3) whom they know – their social and personal network." (Sarasvathy 2001b, p. 3). These means are very important, because they are the entrepreneurs' first thoughts. Figure 3 presents how expert entrepreneurs approach their customers, according to the Effectuation theory, compared to how it is done in the 'typical' Marketing Models in the textbooks.

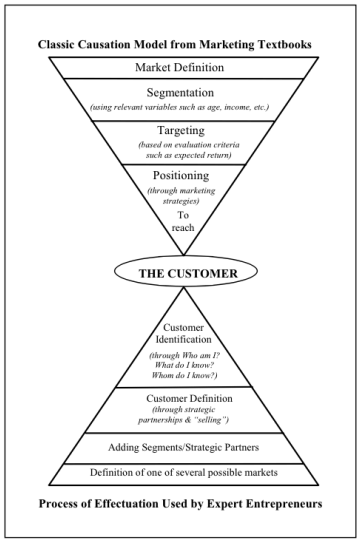

Figure 3. How an expert entrepreneur approaches his/hers customer comparing to the "typical" Marketing Models in the textbooks (Sarasvathy, 2001).

When entrepreneurs are reaching out to customers (the customer identification), they most often start with the persons that are closest to them, and then almost directly move into action without further planning. The actual possible courses of action indicate that with the given actual means, the entrepreneurs start acting upon whatever they can afford to do (Sarasvathy 2001a, 2001b; Dew & Sarasvathy 2007). The traditional way to react to the market is to choose target segments with the highest potential return. However, the entrepreneurs react with the minimum expenditure of resources such as effort, time and money (Sarasvathy 2001b). This is called The Affordable Loss Principle. The entrepreneurs studied in Sarasvathy's (2001b) study did "…not do any traditional market research, but would take the product to the nearest possible potential customer even before it was built" (Sara Sarasvathy 2001b p. 5). In the phase of The Affordable Loss, the entrepreneurs are open for surprises and for which market/-s their business idea will end up in. No theorized or pre-conceived market or strategic universe will tie the entrepreneur; they search within their social network to find their first customers (Sarasvathy 2001b).

The second principle is called The Strategic Partnership. A team is created in the interaction between the entrepreneur and the individuals. "…there is always a meaningful picture that keeps the team together, a compelling story that brings in more stakeholders and a continuing journey that maps out uncharted territories" (Sarasvathy, 2001b p. 3). Entrepreneurs build partnerships through interacting and negotiating with the stakeholders that the entrepreneurs already know or happen to meet (Dew & Sarasvathy 2007). Building partnerships is what the entrepreneurs do instead of doing a

systematic competitive analysis (Sarasvathy 2001b). In the start-up phase of a venture, a detailed competitive analysis does not seem to make any sense, because the entrepreneurs don't assume the existence of a predetermined market for their ideas (Sarasvathy 2001b). The interaction with the stakeholders is not only important to build a partnership, but also for the entrepreneurs' ideas to grow.

> A key aspect of these initial interactions is that the entrepreneur may or may not start with some particular idea for an innovation, and either way the idea dose not determine with which stakeholders he/she negotiates. (Dew & Sarasvathy 2007. p. 276.)

Dew and Sarasvathy argue that it is the other way around:

> The nature of the innovation is determined by which stakeholders self-select in to the venture by negotiating some kind of deal with the entrepreneur. This series of deals – together with other contingencies that occur along the way – determines which innovation actually comes to be. This self-selection process sets in motion a cycle of increasing resources available to the venture while at the same time imposing constraints on the innovation being developed by the venture. (Dew & Sarasvathy 2007. p. 276.)

In the beginning of the process between the entrepreneurs and the stakeholders, the fate of the new innovation is inevitably difficult to predict. The reason for that is that the process is depending on the "self-selected stakeholders" mentioned in the citation above, and at what time they enter the process (Dew & Sarasvathy 2007). These commitments between the stakeholders, the entrepreneur and the innovation helps reducing uncertainty in the early stages of the venture creation (Sarasvathy 2001b).

The third principle in Sarasvathy studies, The Leveraging Contingencies, "is the heart of the entrepreneurial expertise – the ability to turn the unexpected into the profitable" (Sarasvathy, 2001b. p. 6). The surprises that appear are either good or bad. A typical way of thinking in the effectual reasoning is that the surprises can be used as input for the new adventure (Sarasvathy 2001b). "To do" and "to reach out", including solving all the surprises of a new venture, are very important actions in the Effectuation Theory.

The explanations above, as well as Figure 3, clearly show how differently an expert entrepreneur approaches his/her potential customers, compared to what is written in the typical marketing textbooks. The processes in effectuation can also be described as

> …host asks the chef to look through the cupboards in the kitchen for possible ingredients and utensils and then cook a meal. Here, the chef has to imagine the possible menus based on the given ingredients and utensils, select the menu, and then prepare the meal. (Sarasvathy 2001a, p. 245)

However, the process of causation or causal reasoning can be described like this: a chef is given a special menu. The only thing he/she has to do is pick out his/her favourite recipes for the substances on the special menu, go and shop the ingredients and cook the meal (Sarasvathy 2001a).

Chapter 5. Empirical settings

This study's empirical findings will contribute to the discussions and research about young entrepreneurs' needs and requirements to become entrepreneurs. Furthermore, this study's empirical material is expected, from a practical point of view, to allow us to draw conclusions that will improve Drivhuset's new project.

As mentioned in chapter 3, the word 'incubator' is commonly used for a heterogeneous group of organisations that all work within new ventures, such as different types of incubator offices, pre- incubator offices and technical transfer offices (TTO's) (Scillitoe & Chakrabarti 2010). The incubators in this study are three organisations that are connected to Uppsala University (UU). The incubators are driven fully or to some extent with the resources of Uppsala University and are all related to the early phases of new ventures of students or young entrepreneurs. They are Drivhuset Uppsala, Uppsala University Innovation (UUInnovation) and Uppsala Innovation Centre (UIC). As mentioned in the introduction chapter, the three organisations in this study are called the incubators; but to be more precise, they are a pre-incubator office (Drivhuset Uppsala), an incubator office (UIC) and a technology and knowledge transfer organization of Uppsala University (UUInnovation). Within those three organisations, professionals work with young entrepreneurs in creating and starting their new ventures. Therefore their perspectives are essential to this study.

5.1 The incubators

What the three organisations – the incubators – have in common is that they all work in the early phases of new ventures and are connected to Uppsala University. However, the incubators have different assignments. In the following sections, the organizations will be described, including their main goals and assignments. The end section in this chapter will describe Drivhuset's new project.

5.1.1 Uppsala University Innovation (UU Innovation)

According to UU Innovation's website, they are UU's unit for innovation support. They can be identified as a TTO: "UU Innovation is the technology and knowledge transfer organization of Uppsala University and fosters collaboration between Uppsala University, business and community." (UU Innovation (a) n.d.) Their task is to strengthen both the university and the community through increasing utilization of knowledge at UU. They claim that innovation is all about creating value in society, which is their aim, both through the university researchers and the students. They also claim that innovation is not limited to new materials, diagnostic methods or medication; it applies just as much to new methods or practices in geriatric care, schools and social services (UU Innovation (b) n.d.). Over one hundred new companies have been created over the last ten years with UU as their starting point (UU Innovation (c) n.d.). UU Innovation's mission is to support the transformation of research into new services, products, processes or models whether it is through new research-based companies or in existing organizations through research collaboration. Their main assignments are to help individual researchers and students with counselling in making contracts and to help them find funding to develop ideas. UU Innovation claims that they are an essential input for organizations outside the university that are looking for specific academic expertise and collaboration (UU Innovation (c) n.d.). They also claim on their website that it is necessary for them to work closely with the world outside of the university. External contacts and interaction with the outside world is important to connect the business world with the academic research.

5.1.2 Uppsala Innovation Centre (UIC)

UIC is one of the leading business incubator offices in Sweden. According to their website, they are industry independent and they offer advice and support for successful business development to individuals with ideas, business owners, entrepreneurs, researchers and growing companies who want to establish their ideas in the market (Uppsala Innovation Center n.d.). The UIC model has a well-developed structure for how companies can get help with finding funding, access to interesting networks, exchange of experiences and important stimulus in a creative environment (UIC 2014). Unlike traditional incubators, UIC takes no ownership interests in the companies and does not provide vacant premises. In total, 60 business coaches, i.e. businesswomen and men in leadership positions within and outside of Sweden, are in the network of UIC.

They are not employees of the incubator, but they match with the companies that UIC is supporting (UIC 2014).

To add business skills to companies is UIC model's guiding principle. UIC is a member of Swedish Incubators & Science Parks (SISP), the trade association for Swedish incubators and science parks (UIC 2014). UIC is owned equally by: the Foundation for Collaboration between the Universities in Uppsala, Business and the Public Sector; the municipality of Uppsala; SLU Holding and Uppsala University Holding Company (UUAB) (Uppsala Innovation Center n.d.).

5.1.3 Drivhuset Uppsala

Drivhuset in Sweden[4] is an example of a pre-incubator office that focuses on students and young entrepreneurs. According to their web page, Drivhuset's main goal is to help entrepreneurs realize their ideas and to start and run businesses. They provide guidance, education and a creative office environment (Drivhuset Sverige (a) n.d.). Drivhuset helps young entrepreneurs to see possibilities and solutions for ideas to grow. They assume the individual's skills and experiences and then design the help to each individual (Drivhuset Sverige (b) n.d.). Drivhuset focuses on the entrepreneurs and not on the ideas and they never assess. Drivhuset has a business development program that can be applied to both commercial and non-commercial ideas. Using that program, the entrepreneurs learn how to generate new ideas, how to find customer segments and package their offerings to find the ideas' place in the market (Drivhuset Sverige (c) n.d.).

For several years, Drivhuset has worked with and focused on this generation's entrepreneurs, how they come up with an idea and how they build on that idea to create a venture. Two students (young entrepreneurs) in Karlstad founded Drivhuset in 1992. Today, Drivhuset is a growing network that has offices in 14 cities in Sweden (drivhuset.se 2015d). Drivhuset strives to promote good business ideas that will create more growth and sustainable businesses, and over the years Drivhuset has helped launch more than 7000 new businesses (Drivhuset Sverige (d) n.d.). Drivhuset Uppsala is a non-profit organization and is financed by Regional Council, Swedish Agency for Economic and Regional Growth, UU and UU Innovation.

[4] Drivhuset in Sweden is located in Uppsala, Umeå, Stockholm, Göteborg, Malmö, Borås, Gävleborg, Kalmar, Karlstad, Skaraborg, Södertälje, Trollhättan, Växjö and Örebro. Each organisation works as independent organisations.

5.2 The background of the empirical case

Drivhuset Uppsala, in cooperation with Drivhuset Umeå, requested the author of this study to research a project that they are designing, ultimately to make suggestions to improve the project.

How can Drivhuset encourage more young individuals to become entrepreneurs? Today everyone can start a business. It all starts with an idea, but it is obvious that some ideas work better than others. Entrepreneurs that have succeeded may have more good ideas. They also have experiences that are a very important resource for further growth and sustainable entrepreneurship. To combine senior entrepreneurs with students can give even more support to entrepreneurial growth and sustainability. The general focus has been on finding new innovators and new entrepreneurs. This was Drivhuset in Uppsala's main thoughts when designing the project. Drivhuset Uppsala claims that there is a need to focus on those that already exist, the senior entrepreneurs. Furthermore, there is a need to focus on young individuals and students in general; not only those who come up with an idea, but also those who are interested in working in the field of entrepreneurship. Drivhuset Uppsala therefore wants to create a project where they connect students with senior entrepreneurs. The senior entrepreneur will be the student's mentor and together they will drive an idea to a real business and create a new venture.

5.2.1 Drivhuset's new project

The aim of the project is to bring together a number of entrepreneurs who easily come up with ideas and who have shown historically that they have been able to succeed.

The senior entrepreneurs (mentors) will be matched with students (adapts) (the students can also be in teams). The pre-incubator Drivhuset Uppsala will take care of all the administration and planning for the project, such as collecting the students and entrepreneurs in a database, and will take care of the matching process. The senior entrepreneur has an idea in stock that he or she thinks would work as a business idea. The senior entrepreneurs will provide the students with their experiences as mentors, while the students start up and run the business ideas.

The business idea can be to create a product, a process, or a service, and the student should find a way to sell it to the public as a business concept. The student gets about three to six months to verify and validate a business model, including to find an

audience for the business concept. During these three to six months, the student will fully create the business model, which will include finding out if there is a market and a demand/willingness to buy or pay for the idea. During this period, the student learns his/her way of becoming an entrepreneur and gets access to a network of expertise organizations for support. When the student has created the business model, he/she and the senior entrepreneur have reached the end of the initial phase, after which they make a decision as to whether they want to proceed and start a company/a new venture or if they want to end their cooperation.

In order to be able to make suggestions to improve this project the three actors' views are essential, as well as the literature and the theories in this study. The analysis based on their interviews as well as the theories will give Drivhuset an overview of how to act and what to focus on when taking the project to its next phase.

Chapter 6. Empirical results: The three actors' views on what young individuals need/require to become entrepreneurs

As mentioned in chapter two, a qualitative content analysis was implemented as well as a coding of the main sub-themes and themes. The empirical results are divided into three categories; the students, the entrepreneurs and the incubators view´s on what young individuals need/require to become entrepreneurs. During the coding and analysing the sub-themes and thereafter the main themes the focus was to find the participants overall view from the discussions in the interviews. Table one show how the empirical material was coded into sub-themes. Following sections describe this study's sub-themed empirical results.

Table 1 show this study's collected data (from the interviews) and how the empirical material were sub-themed.

The three actors	The main categorized sub-themes in this study's empirical material
The students	• 'Real life experiences – to get contacts' • 'It all starts with an idea' • 'The right timing and economy'
The entrepreneurs	• 'Challenges' • 'Innovator vs. Entrepreneur - push and pull' • 'Entrepreneurial environment – the ecosystem'
The incubators	• 'Support systems and team-building' • 'Time and dedication' • 'Clustering'

6.1 The students' views

The interviews with the students gave a wide view on how they think, and on what their own expectations are regarding what a young individual needs/requires to become an entrepreneur. Some of the students want to become entrepreneurs in the future, and some of them don't. The students generally agree that entrepreneurship can be taught; however, not all of them were sure about whether anyone can become an entrepreneur. One student group discussed the differences between an innovator and an entrepreneur. Based on that discussion, one can say that they think that students can be taught to be innovators, but to become an entrepreneur, you have to learn for yourself. The group

interviews also gave a deeper understanding about how the interaction between the students and the incubators could be, as well as the participation in Drivhuset's project.

The empirical material from the group interviews was divided into themes to facilitate further analysis (see following chapters). Ideas and real life experiences in order to get contacts and, furthermore, timing – at what time the students should be focused on to increase their entrepreneurial capacities and economic stability – are the students' main themes.

6.1.1 Real life experiences – to get contacts

Most of the students think that their university is mainly focusing on research and that there is less focus on connecting them with the business life and the industries. They also experience that their programs are more research-based than innovative, which is not what is needed to become more entrepreneurial. There was quite a difference between the students' views regarding their appreciation of the theories and the research. In general, their opinion is that the university is lacking the ability to put the theories into action. "We are master's students, we must be ready to work with and within real businesses."[5] The students were very focused on the business life and what happens after their studies. A great deal of time in all of the group interviews was spent on that discussion. An obvious focus in the interviews was on networking and getting contacts.

The students discussed that a connection to the businesses will give them more contacts. "We want real cases, we don't get contacts by listening to guest lectures."[6] The students discussed if the projects they are working on in the courses would actually work in real life. They said that it would be very interesting to actually discuss the business plans with the companies that the business plans are written about. Furthermore, they discussed the possibility to choose a project to work on within their own fields of interest – projects that are based on their own ideas or what they themselves have participated in creating. One student group talked about a course where they had to realize someone else's ideas. They deemed this experiment uninteresting, not increasing their entrepreneurial capacity. They didn't feel as a part of the idea – their job was to simply work on it. In the open discussions about what it takes to become an

[5] (Quote from a student-group interview (Y) 24 February 2015, translated by the author)

[6] (Quote from a student-group interview (Y) 24 February 2015, translated by the author)

entrepreneur, it was said that "The university is not increasing our creativity, why aren't there programs like the UF at the university?"[7] Ung Företagsamhet (UF) came up and was discussed in most of the group interview (not as a question from the interviewer). To become an entrepreneur, the students' view is that you have to be creative and get the chance to increase your creativity. According to the students, this is what UF is doing. They're not only increasing the students' creativity, but are also giving the students a chance to experience for themselves what it's like to become an entrepreneur.

6.1.2 Ideas and fun

To become an entrepreneur, you have to have an idea; this was, in general, discussed in all the group interviews. The students' view is that the incubators are only for those who get the good ideas. "You go visit an incubator if you have an idea."[8] This quote, in one form or another, came up in every group interview. One student said: "I know I am going to have my own business in the future, I am just waiting for the right idea to come"[9]

In the discussions about the students participating in entrepreneurial activities, a recurring theme was that the activities have to be fun and cool. This is an incentive – if something is interesting and seems fun or cool the students claim that they will participate and be more active. This also came up in the discussions about letting ideas grow and becoming more creative.

6.1.3 Economy and timing

What students need when actually starting a company and becoming entrepreneurs "is all about money and resources"[10]. Two facts were widely discussed by the students in the interviews. Firstly, the starting capital or how to finance the idea and secondly, a steady income e.g. from a salary. In the discussions, the students also stated that a great deal of courage is needed to become an entrepreneur.

When discussing the right time for them to participate in a project to enhance their entrepreneurial skills, become more entrepreneurial and to learn the work of an entrepreneur, their answers were identical. In the beginning of the studies, the students

[7] (Quote from a student-group interview (V) 3 March 2015, translated by the author)

[8] (Quote from a student group interview (Y) 24 February 2015, translated by the author)

[9] (Quote from a student-group interview (X) 18 February 2015, translated by the author)

[10](Quote from a student-group interview (V) 3 March 2015, translated by the author)

are thinking about other things that are often related to the social life of the university. However, the students agree that the right time for them to participate is during their studies. That's when they are economically stable, living a simple and low-cost life, not having to worry about paying rent or the cost of living. The students have their loans and grants; "now we have 6 years of financiering, now we are ready to do something."[11]

6.2 The Entrepreneurs' views

All the interviews with the entrepreneurs stated similarly: "I was born as an entrepreneur"[12] or, "I think I have actually been an entrepreneur all my life, I really started when I was a teenager"[13] and then continued with their stories. All of the entrepreneurs have experienced a great deal of adventures in their careers. The main theme discussed in the interviews was solving problems, as well as challenges and experiences they have faced during their journeys. They described themselves both as innovators and entrepreneurs and discussed that combining those two roles is very important for young entrepreneurs. They also discussed young entrepreneurs' need to feel the motivation and stimulation of the entrepreneurial environment, which they called the ecosystem.

6.2.1 Challenges

Throughout the interviews, while listening to the stories of the entrepreneurs, the significance of the ability to solve problems, especially the unexpected ones, became clear. "I see a problem I want to solve, and then I solve it."[14] If there is a demand for something, the entrepreneurs start thinking about how to meet this demand. According to the entrepreneurs, the journey of 'getting there' is what young entrepreneurs need to experience in order to become entrepreneurs. For young individuals, solving problems and learning lessons from good and bad surprises during the journey is very important. The entrepreneurs' view is that without handling the problems and the mistakes themselves, the young entrepreneurs will never learn from them – which they really need to. One gets the sensation throughout the interviews that in the world of entrepreneurship, mistakes are more acceptable. The interviewed entrepreneurs all

[11] (Quote from a student-group interview (Z) 19 February 2015, translated by the author)

[12] (Quote from an interview with entrepreneur (C) 27 of March 2015, translated by the author)

[13] (Quote from an interview with entrepreneur (A) 23 of March 2015, translated by the author)

[14] (Quote from an interview with entrepreneur (C) 27 of March 2015, translated by the author)

talked a great deal about their failings and how they started again – something that had often happened several times.

Solving problems and learning from mistakes is one challenge, another one is that the young entrepreneurs need to feel challenged. To make young individuals want to meet the challenges when working with something, they have to feel the challenge to get inspired, or even just to get started. According to the entrepreneurs, the challenges in creating and starting good businesses are very important lessons concerning what young entrepreneurs need to become entrepreneurs.

6.2.2 Innovator vs. entrepreneur - Push and Pull

Another recurring aspect in the discussions is closely related to the challenges: "Anyone studying technology can be an innovator, but you cannot simply read a book and become an entrepreneur"[15] Having an idea is innovative; however, just having an idea is not enough to become an entrepreneur. In the interviews, it became clear that pushing young individuals into becoming entrepreneurs was not perceived as the right way to create or find young entrepreneurs. According to one entrepreneur, this is not what they require; instead, "the young entrepreneurs need to be 'pulled' into becoming entrepreneurs"[16].

In the discussions regarding what kind of person can become an entrepreneur, an interesting point of view was that it has to be innate in young entrepreneurs, in their individual personalities. This was said to be one of the main driving forces when becoming an entrepreneur. One entrepreneur said that "most individuals can become entrepreneurs but it is based on the situations and/or the circumstances each individual is in at the moment"[17]. Analysing individuals' personalities was not something the entrepreneurs wanted to take any further; the discussions orientated themselves towards the environment and what is tempting and what is not. According to one of the entrepreneurs, becoming an entrepreneur "requires more than basic knowledge, challenges or using the brain"[18]. There has to be something that pulls the young entrepreneurs towards wanting to become entrepreneurs. This is related to the

[15] (Quote from an interview with entrepreneur (E) 6 of May 2015, translated by the author)

[16] (Quote from an interview with entrepreneur (E) 6 of May 2015, translated by the author)

[17] (Quote from an interview with entrepreneur (B) 27 of March 2015, translated by the author)

[18] (Quote from an interview with entrepreneur (E) 6 of May 2015, translated by the author)

challenges mentioned in the section above, but is also closely related to the discussions in the interviews about pushing someone to become an entrepreneur. Compelling students to become entrepreneurs is a way of pushing them into doing so. One of the interviewed entrepreneurs said that "Attraction, different kinds of knowledge, putting together multi-disciplined individuals and lastly 'the ecosystem' will pull out the young entrepreneurs"[19]. This pull method, as the entrepreneurs denotes it, is what works best with young individuals. Furthermore, it is their belief that through using the pull method, the young entrepreneurs that are out there will be found.

6.2.3 Entrepreneurial environment – the ecosystem

What young entrepreneurs need is to be a part of the social and entrepreneurial environment. The entrepreneurs called this the entrepreneurial ecosystem. The interviewed entrepreneurs all discussed the fact that meeting other entrepreneurs and being in the entrepreneurial environment is a very important need for young entrepreneurs.

In the entrepreneurial environment, the young individuals will get the chance to meet others and get contacts. But above all, they will be inspired and meet people that can perhaps make their ideas grow. Based on the interviews, the author divided the concept of the entrepreneurial ecosystem into two parts. Firstly, we have what can be called the social part of entrepreneurship. One of the entrepreneurs expressed a theory that can be identified in all the interviews with the entrepreneurs: "I have a theory: if you get good people together and they have fun and they relax, things starts to happen."[20] This particular entrepreneur claimed that all the investors he had found was through social events; that's where he had met the investors and the "right" people – people who were to become extremely important for his businesses. Secondly, there is the importance of the environment; as the word 'ecosystem' implies, is has to in 'function' for the entrepreneurship to grow. The entrepreneurs discussed the difficulties in creating the conditions for new businesses to grow or in turning a new idea to become into a business. Ultimately, this is related to investments and financing. Meeting with investors and finding finance is an obvious challenge, strongly related to the social environment. None of the entrepreneurs in this study had gotten support from the incubators in this study. The entrepreneurs did not share their opinions concerning

[19] (Quote from an interview with entrepreneur (E) 6 of May 2015, translated by the author)

[20] (Quote from an interview with entrepreneur (D) 31 of March 2015, translated by the author)

interaction with the university world. One of the entrepreneurs stated that in Uppsala, entrepreneurship comes from two worlds: the university and the industry. "In Uppsala, entrepreneurial capacity is not coming from the university; it is coming from the other world."[21] Another entrepreneur argued that the university and the industry can easily work together in the field of entrepreneurship and that this, in fact, is very important for young entrepreneurs. He started his first businesses during his studies, and the contacts he got at the university were and are very important for him. The third entrepreneur argued that during his university years (during which he obtained two master's degrees), all his creativity died. Another is working closely with the university with different assignments. He claims that there are many obstacles in the interaction between the university and the industry. The obstacles are mostly related to the ecosystem, i.e. the conditions for new ideas or businesses and the start-ups of ventures. The fifth entrepreneur has also worked with students and his opinion was that the interaction was meaningful for both him and the students.

As an interesting final view drawn from the interviews is this: "With situations you create a small fire, those situations then have to be available for the young entrepreneurs"[22] This, in combination with finding customers who are interested in participating in a business development or a technological progress is the most important. Moreover, finding stakeholders who are willing to create an ecosystem for the fire to live is the most essential, according to the entrepreneurs. It is a combination of the environmental stimulus, the cooperation of various sciences and the conditions that enables the growth of new ventures as well as situations where everyone works in the same direction.

6.3 The Incubators' views

The incubators are three organisations that are participating in the early phases of new ventures and are connected to Uppsala University, as described in chapter five. Within those organisations, there are experts and highly experienced individuals such as business advisors, collaboration leaders and specialists in intellectual property law with experience in both research and different sectors of industry and society. In the

[21] (Quote from an interview with entrepreneur (B) 27 of March 2015, translated by the author)

[22] (Quote from an interview with entrepreneur (E) 6 of May 2015, translated by the author)

interviews, it becomes clear that the incubators see a lot of value in the students. The three organisations have different assignments in assisting young individuals becoming entrepreneurs. Two of the organisations are mainly focusing on the researchers, still with students as their market group, and on assisting the commercializing of high-innovative research. The third organisation is only focusing on young individuals whereas high-innovative researches are not essential. Through the interviews with the three incubators, the importance of students knowing about their existence became clear. The incubators are there to help the students turn their business ideas into values. A common interest of the incubators is "building awareness, or raising awareness of it all, inspiring and to increase the understanding of the important building blocks of entrepreneurship" [23]. The incubators are using different models in supporting the new ventures and their main purpose is creating values.

6.3.1 Support systems and team-building

In order to create value, the incubators agree that they can interact even more with the university in entrepreneurial education of young entrepreneurs: "we can work together with the university."[24] Furthermore, the organisations agree that it is the university's task to educate in the field of entrepreneurship and that the university should take care of it. However, as mentioned above, the incubators agree that they could participate in this task. An important statement is that it has to be a part of the organisation's assignment – there has to be a clear strategy determining how they are supposed to work with these tasks. One of the incubators claimed that "we see benefits in the students' free and honest perspective"[25] meaning that the students can participate in many different assignments within the incubators.

It is the incubators' foremost view that their organisations are important when it comes to assisting the young entrepreneurs in the form of support and guidance. Their support systems include different educating tools or educating programs for the students. They do not have on going programs available for others than the students they are assisting. The organisations are focusing on each individual/idea and their needs and requirements. "Our goal is to find a truly viable model for building a profitable

[23] (Quote from an interview with incubator (2) 16 of March translated by the author)

[24] (Quote from an interview with incubator (1) 25 of March translated by the author)

[25] (Quote from an interview with incubator (2) 16 of March translated by the author)

business."[26] In the discussions about how the incubators are focusing on the individuals or the ideas and what a young entrepreneur need, an interesting aspect came up about teams. "We know that the business ideas change we do not evaluate the ideas, we evaluate the team – if the team can go from the idea to building a company, the idea that the teams start with in the beginning most of the time changes"[27] The organisations relate this to the start-up businesses, stating that for them there are different rules. The discussions about incorporating students into those teams were interesting, and lead to reflections on dedication; it was said that the students had to be involved from the beginning – to be a part of the base team. For one of the incubators, whose assistance is the most frequently asked for amongst the incubators, it is the same – they don't focus on the idea, they focus on the persons. This raised a lot of questions about whether entrepreneurs work alone or in teams, and what the main differences are, as well as questions about how this is related to different disciplines.

6.3.2 Time and dedication

The students need "to try out their ideas" [28], to see if they work and if there is a demand in the market. This can take time and the support systems are very important in that phase of the venture. As aforementioned, the students claim that they have time and money to act as entrepreneurs during their studies; nonetheless, the process of turning an idea into a business has to be fast. This means that after their studies the students need a steady income. Therefore, time and dedication is essential for the young entrepreneurs. Based on the interviews, one can draw the conclusion that their dedication reflects the time they have and on their self-reliance. It is the incubators' view that making the processes as short as possible is an important need for the young entrepreneurs. "The students are often running or starting their businesses during their studies and then they are often working on them as a half-time occupation."[29] What happens after their graduation is then depending on how long-gone the process of the new venture is.

[26] (Quote from an interview with incubator (1) 25 of March translated by the author)

[27] (Quote from an interview with incubator (1) 25 of March translated by the author)

[28] (Quote from an interview with incubator (2) 16 of March translated by the author)

[29] (Quote from an interview with incubator (3) 4 of May translated by the author)

6.3.3 Clustering

What young entrepreneurs need can be analysed into the differences in the young entrepreneurs' personalities. What young individuals require and what they are looking for when they visit the three organisations depends on them. If the students visit the three organisations for instructions, each instruction has to be designed for the specific individual. From the instruction meeting, the young individuals get answers and guidance on how to proceed with their new ventures. However, many students just need contacts and not too much guidance, they need places where they can meet. They have 'the entrepreneur' inside of themselves. On the other hand, some students have the network of contacts but they need the formal assistance – one can say that they are not acting entrepreneurially. According to one of the incubators it is sometimes about them individually, "we need to help them to lead themselves"[30] and also about connecting them with the social environment. But the organisations cannot do the job for them - the students have to do that themselves. This, it is indicated, is not common. "The typical entrepreneur looks after him/herself, but sometimes he/she just needs someone that is in the corner"[31]. When young entrepreneurs are taking their first steps in entrepreneurship any extra help they can get is extremely important. Another interesting aspect from the interviews is the following: "Innovations are often born in meetings between people. When you interview a student, they often say that they want to start their own business. If you throw a student into a certain situation, his/her schooling will undoubtedly affect their capacity for innovation – it is about the mindset".[32] One can say that it is about the clustering of individuals as a whole and the incubators can offer a lot because of the big size of their networks. This is not only because the young entrepreneurs sometimes lack their own network, but it also gets students into the situations that are described in the citation above. This is important for young entrepreneurs, but it is also important for the senior entrepreneurs; together they can create an environment of growing entrepreneurship.

[30] (Quote from an interview with incubator (3) 4 of May translated by the author)

[31] (Quote from an interview with incubator (3) 4 of May translated by the author)

[32] (Quote from an interview with incubator (2) 16 of Marsh translated by the author)

Chapter 7. Analysis

From the empirical results and the categorized sub-themes, three main themes have been analyzed to be the most important needs for young individuals becoming entrepreneurs, as shown in table 2. Firstly, the main categorized theme analyzed from the interviews with the students is putting the theories they are learning in to action. Secondly the main analyzed theme from the interviews with the entrepreneurs is that learning by doing makes them entrepreneurial and is therefore very important for the young individuals. Thirdly, the main theme analyzed from the interviews with the incubators is that the young entrepreneurs have to create values in their new ventures and do that as fast as possible.

These three main themes indicate each interview-group´s opinion on the most important requires young individuals need to become entrepreneurs. The following sections describe the empirical results (in themes) analyzed in relation to this study's theories and literature.

Table 2 show the main analyzed themes from the main categorized sub-themes from the empire.

The three actors	The main categorized sub-themes in this study's empirical material	The main categorized themes in this study's empirical material
The students	• 'Real life experiences – to get contacts' • 'It all start with an ideas' • 'The right timing and economy'	Put the theories in to action
The entrepreneurs	• 'Challenges' • 'Innovator vs. Entrepreneur - push and pull' • 'Entrepreneurial environment – the eco system'	Learning-by-doing makes us entrepreneurs
The incubators	• 'Support systems and team-building' • 'Time and dedication' • 'Clustering'	Creating values

7.1 Putting the theories into action

The theories indicate that entrepreneurial behaviour is learned by the students through, discovering and experiencing for themselves, as stated in (Vincett & Farlow's 2008; Kirby 2004; Rasmussen & Sørheim 2006). This is recognized in elementary and high schools in the Swedish school system as the educational organization UF is focusing on combining theories and practice in the form of action-based learning. In higher-level education like in Vincett and Farlow study (2008) the students get into real connection with the stakeholders, and have to start running their businesses within the university course structure. This is as mentioned in chapter four, an example of learning through entrepreneurship. Furthermore, it has been concluded that the students' main view is that action-based learning is essential to becoming more entrepreneurial. Through more action-based learning, the students would be focusing on the connection with the business world – and on creating contacts. This indicates that many of the interviewed students are already acting entrepreneurial as they are focusing on the actual means in the effectuation theory: who they are, what they know and whom they know (Sarasvathy, 2001a; 2001b). By focusing on the actual means the students are thinking of 'creating' their own network before they become entrepreneurs.

In the interviews, a real life experience was described as working with real projects, were the students get the opportunity to put the theories they are learning into action. This is mainly addressed in the discussion; the students said that it would be interesting to show the businesses the 'plans' that they were working on. Through that, the students would see how the theories they encounter in their studies work in practice. In the original theory about learning-by-doing, the focus was on enabling the students to learn while engaged in solving problems (Anzai & Simon 1979). By making a real business plans or solving real cases for or with companies, the students will increase their entrepreneurial capacities. The processes of learning-by-doing are based on task-solving, which is very close to the aim of UF. The aim of UF is to make young people believe in their own enterprise, through combining theory and practice in an inspiring and fun way, all done by the school. That gives young people a contact with the industry and with enterprises.

The students were also very focused on ideas and that to be an entrepreneur you have to have a good idea. According to Read et al. (2011), one of the main issues that hold individuals back from starting a new venture is the notion that they don't have an idea.

Read and his colleagues argue in their book about effectual entrepreneurship that the fact is that good ideas are cheap and plentiful and that it is what you do with them that matters. From the Start-a-Business course, another statement is also relevant in this context: "Good ideas cannot be invented to order" (Vincett & Farlow 2008). Vincent and Farlow argue that if the ideas are ordered the students don't build the commitment to them, giving the ideas little or no time and incentive.

According to Read et al. (2011), another of the main issues that hold individuals back from starting a new venture is the question of money. Giving the students a chance at being entrepreneurial during their studies seems, for the students at least, to be very important. The students can also be seen as reacting according to the Affordable Loss Principle; the traditional way to react to the market is to choose target segments with the highest potential return. However according to the Effectual theory, the entrepreneurs are reacting with the minimum expenditure of resources such as money (Sarasvathy 2001b). During their studies the students can therefore act as the entrepreneurs by reacting with the minimum expenditure of money or capital. When the students are talking about capital, the subject can be divided into two categories. Firstly, there is the starting capital, or how to finance the idea, and secondly the question of a steady income, i.e. salaries. In this context the Affordable Loss Principle can by relevant for both categories.

An important aspect is that cooperation between students and incubators in Uppsala is limited when it comes to action-based activities; the interviewed students have very little experience of that kind of interaction. As far as the students groups know, venture creation programs are not known or used in Uppsala University. However, it is stated in Lackéus and Middelton (2015) study that venture creation is a pedagogic foundation and is very important in entrepreneurial education. In the end of a venture creation program an incubator is extremely important to assist in the 'too early and too vague initial ideas' that the students get during the programs. As mentioned in chapter 3 the incubators are important in entrepreneurial education and are essential in the development of entrepreneurship (Kirby 2004; Ollila & Middleton 2011).

The answers from the students regarding their opinions about participating in the incubators activities in the future (Drivhuset's new project) are from a hypothetical point of view. However, the students were very open to the idea of getting a chance to cooperative with the incubators to increase their entrepreneurial capacities. They had a

positive approach to participating in the incubators activities during their studies and more precisely, when they are economically stable, as they are when receiving student grants.

7.2 Learning-by-doing makes us entrepreneurial

When analysing the interviews with the entrepreneurs, one can clearly see that there was an emphasis on what they themselves had experienced on their journeys to success. They all shared the view that what young individuals require to become entrepreneurs is learning for themselves, i.e. learning-by-doing. "To do" and "to reach out", including dealing with the surprises of a new venture, are very important actions in the Effectuation Theory. According to Harper (2008), entrepreneurship is argued to be best conceived as a dynamic problem-solving process where the entrepreneurs learn in the light of the experiences and feedbacks they get from the market. Entrepreneurship is about acting and reaching out to the potential customers and to the market, therefore learning-by-doing is an important need for the young individuals. Another interesting issue is that of the unexpected problems that are referred to in Sarasvathy´s theory as the surprises. The third principle in Sarasvathy's studies, The Leveraging Contingencies, "is the heart of the entrepreneurial expertise – the ability to turn the unexpected into the profitable" (Sarasvathy, 2001b. p. 6). The interviewed entrepreneurs have in their careers used the effectual reasoning and the third principle, through learning from the unexpected 'mistakes' and using them as input for their new ventures. For the young individuals to be more capable of handling the surprises in their future carrier, learning-by-doing and dealing with the surprises is an important need. In courses like the Start-a-business and/or the venture creation programs the students get the opportunity to learn how to turn the surprises into profit.

The challenges that the entrepreneurs described in the interviews can be analysed as their effectual reasoning. This means that they, according to the Effectuation Theory, have the ability to think more effectual which is perhaps encouraging for them when faced with challenges, to the point where challenges become important to them. This is also related to how they reach out to their customers, and to the fact that they are not predicting the future. However, "…they have believe in a yet-to-made future that can substantially be shaped by human action…" (Sarasvathy 2001b, p. 3). The entrepreneurs all discussed the importance of feeling or being challenged, which is interesting to discuss further and perhaps the young individuals also need to feel and be challenged

when becoming entrepreneurs. The entrepreneurs' statements about push and pull are also very interesting when analysing the interviews. The theories about entrepreneurs suggest that they avoid predicting and pretending and that they are committed to their business ideas – that they are being pulled. This, the author analyses in the way that when you push an individual to do something, it is harder to get the commitment in giving the business idea time and incentive as Vincett and Farlow (2008) describe in their study. According to this it is very important that the business ideas are perceived as real.

As the researchers have analysed how entrepreneurs think and act, it is hard to focus on their means in an isolated environment. There is a need to be in constant contact with others and not isolated as the second principle in the Effectuation theory, The Strategic Partnership, indicates. According to Sarasvathy (2001b), the entrepreneurs build partnerships instead of doing a systematic competitive analysis. This is analysed in Dew & Sarasvathy (2007) which states that the interviewed entrepreneurs build the partnerships through interacting and negotiating with the stakeholders that they already know or happen to meet. According to this, one can say that the entrepreneurial 'social' events are important in order to build those partnerships. If these social events and places for the entrepreneurs to meet are so important they need to be recognised, organized and be available. This also indicates the importance of the entrepreneurs needs to build their own network and contacts (stakeholders) as they affect the entrepreneurs ideas and new ventures. The more stakeholders the entrepreneurs have access to is an important 'recourse' as the stakeholders will affect the ideas, make them stronger and better or reduce uncertainty in the early stages of the new ventures. How young entrepreneurs will meet up with their future stakeholders and other interested parties is strongly related to the entrepreneurial environment. In this study, the analyses regarding the contacts, the entrepreneurial environment and the ecosystem are comparable to the process of entrepreneurs reaching out to their potential customers in the Effectual theory (Sarasvathy 2001a; 2001b).

The entrepreneurial environment, or 'the ecosystem' is a very interesting topic that all the interviewed entrepreneurs expressed as being extremely important for the young entrepreneurs and also for entrepreneurship to grow. The entrepreneurial environment was not found to be an important topic in the literature research for this study regarding entrepreneurship and entrepreneurial education, although it does exists in other literature. However, it is brought up in the interviews as an extremely important need

for young entrepreneurs. Moreover, the need for the entrepreneurial ecosystem to be in function is also essential for the growth of young entrepreneurship. As mentioned in chapter 6.2.3 the second part of the ecosystem concept is that the ecosystem is in function for new ventures to grow. The young individual has to have access to investment and financing. The incubators role is to be the building bridge in helping the young individuals finding the right investments and financing for their new ventures. None of the interviewed entrepreneurs had help from incubators as mentioned in 6.2.3, however, they have found their stakeholders themselves and most of them in social contexts. The venture creation programs and action based learning (Vincett & Farlow 2008; Lackéus & Middleton 2015) can help young entrepreneurs in creating contacts that are important for them when acting in the entrepreneurial ecosystem. Furthermore, it is important that the facts about the ecosystem is recognised not only by the incubators as the organisations that have grown out from the university, but in entrepreneurial education programs as well and therefore in the universities themselves, the government and in the industry.

7.3 Creating values

The incubators are an important support system that the three organisations all agree is an important requirement for young entrepreneurship. Furthermore, this can also be interpreted according to the theory of venture creation (Vincett & Farlow 2008; Lackéus and Middleton 2011; Lackéus and Middleton 2015) the incubators are used as a support system when the business idea comes to its incubation phase. The acceptance of ambiguity and uncertainty is seen to be a common factor for the young entrepreneurs (Vincett & Farlow 2008). The incubators' main common goal is to help, and to foster values in the businesses they are interacting in. The incubators are all very successful in their respective areas and are fulfilling their assignments. Furthermore, the incubators are not participating in any type of venture creation program. Related to these three organisations, there are no direct activities connected to entrepreneurial education programs that resemble the venture creation programs.

Based on the results of the interviews, one can divide the notion of teams into two sub-groups. The first group consists of the teams mentioned in Drew and Sarasvathy's study (2009), which are about building partnerships through interacting and negotiating with the stakeholders that the entrepreneurs already know or happen to meet. The second group comprises the teams formed through building partnerships with the individuals

the entrepreneurs plan to start a venture with, as co-operating partners. This is found to be very important, as the incubators focus on the individuals or the team and not on their ideas. How important teams are, when it comes to what young entrepreneurs need is an interesting question for further investigation. As indicated in Etzowitz's study (2013), entrepreneurs are most often working in some sort of team, and if an individual is willing to become an entrepreneur individually, he/she is also able to do that collectively.

According to Vincett & Farlow (2008), planning and time pressure are both essential in the learning process of creating a new venture. It can therefore be discussed if the support system, which the incubators are providing, is an important resource for young entrepreneurs. However, to establish a business or a business idea in a faster way is, according to the incubators, very important for the young individuals becoming entrepreneurs.

The incubators indicate that the students are underestimating the time it takes to realize an idea. The importance of time and dedication for the young entrepreneurs can be analysed with Sarasvathy's effectual reasoning (2001a; 2001b). The entrepreneurs believe in the yet-to-be-made future, i.e. the young individuals that are acting entrepreneurial will also, with effectual reasoning, believe in the future and therefore be more dedicated. Then the young entrepreneurs will believe that their ideas will provide them with income in the future. The others, who are not using the effectual reasoning, will perhaps be less dedicated. Related to time the question becomes: when is the best time to focus on students? Is it during their studies, as the students suggested was important, or is it after their graduation?

Bringing together individuals, or clustering, is addressed by all of the incubators as a very important issue when it comes to what young entrepreneurs require. This means analysed that the students need to, as Vincett & Farlow's (2008) study indicates, reach out to outsiders during the process of venture creation. Through this clustering, they can meet potential customers, co-founders, competitors, suppliers, existing entrepreneurs that are running related businesses, investors or bankers etc. Clustering is also well described in the Effectuation Theory – it is when the entrepreneurs reach out for partnership. The incubators will, through clustering, hasten the processes of the young entrepreneurs becoming entrepreneurs, so this is very valuable with regards to their needs. This indicates that the incubators are well aware of the importance of the

function of the social and the financing part of the ecosystem. The incubators state that their assignments administrate on what and whom they focus on. To work more in improving the ecosystem, the incubators have to have new orders or changes in their assignments.

Chapter 8. The main findings

The three actors' views have in the previous chapter been analysed and interpreted in relation to the theories. From the analysis of the main themes in the three actors' view on what young individuals require many important topics have been discovered and are essential to discuss further.

Young entrepreneurs need to feel challenged to become entrepreneurs – the challenges are the motivation. The author has chosen to analyse this, and to refer to it in the same way as the entrepreneurs do: to "push and pull" the young entrepreneurs. A statement from this study's empirical material (chapter 6) is: if you place together attraction, different kinds of knowledge, multi-disciplined individuals in a well-functioning ecosystem, entrepreneurship will grow. In other words, finding the young entrepreneurial individuals by, 'pulling them' into becoming entrepreneurs. The ecosystem or the entrepreneurial environment has to pull the young individuals rather than push them. Is the entrepreneurial system of today pushing young individuals to become entrepreneurs rather than pulling them? The described 'attraction' in the venture creation theory can be related to 'pulling' – the attraction is the real life experience the students get as well as getting or feeling committed to their ventures. The 'pulling', according to the senior entrepreneurs, is not only the right way to find the young entrepreneurs but also the biggest requirements for young individuals in becoming entrepreneurs. This study agrees with the importance of the 'push and pull' method as well as the venture creation method in the processes of learning entrepreneurship. The fact that the students are not experiencing venture creation as an entrepreneurial educational form, as it is limited in the university, is a question that has to be discuss further.

The entrepreneurial environment – the ecosystem can be concluded that when the entrepreneurial universities were shaped and the incubators grew out of that creation, the purpose was not only to support the development of innovative businesses, as Mian (1997) has stated, but also lead to the creation of an entrepreneurial environment. Furthermore, these findings can be interpreted in relation to Etzkowitz's studies, which state that incubators are supposed to, as they are today, interact with the surrounding society and economic life in accordance with the formal obligation of the 'third mission' rather than for entrepreneurial education purposes. This study however, has found research that indicates the importance of the incubators interacting with

entrepreneurial education (Kirby 2004; Rasmussen & Sørheim 2006; Vincett & Farlow 2008; Scillitoe and Chakrabarti, 2010; Ollila and Middleton, 2011; Lackéus and Middleton 2015). Why are the incubators related to Uppsala University not acting more in the entrepreneurial education? This is also an interesting question to discuss further. The social interactions are analysed to be very important both for building partnership such as finding investors and/or cofounders as well as to interact with future customers. These social interactions can be e.g. served by 'clustering' together the stakeholders as well as young entrepreneurs, senior entrepreneurs and professionals. This is closely related to the entrepreneurial environment but can also be treated as a separate topic. Clustering was considered very important in all of the three actors' views. Clustering is, in a simple sense, bringing individuals together. In order to do that, the incubators are important, as a resource and as an organizer. This also relates to the social part of the entrepreneurial environment or the ecosystem – the importance of mingling while having fun. By doing so, the senior entrepreneurs state that they have met many of their most important stakeholders. What does this mean, and how can the incubators in Uppsala be more active in that area? The clustering and the social interactions are very important to discuss further.

Chapter 9. Discussion and suggestions for further research

In this study's main findings (chapter 8) many interesting questions and subjects are important to take in to consideration for this study's conclusions, suggestions for Drivhusets new project and for further research. This study's main findings have summed up the most important requirements of young individuals becoming entrepreneurs and will be described in the conclusions, chapter 10. This chapter will however, discuss the main findings interesting questions and subjects found in this study as well as making suggestions for further studies.

Is the entrepreneurial environment in Uppsala and today's education programs in Uppsala University pushing young individuals to become entrepreneurs rather than pulling them? This question would be very interesting for further research as; Is the fact that entrepreneurial educational forms, such as venture creation programs, are not experienced by the students as available at Uppsala University, as well as the incubators not participating in entrepreneurial education, important? As this investigation has shown other studies indicate the importance of the incubators and perhaps it should be researched further how the incubators in Uppsala can contribute to entrepreneurial education. The incubators in this study have indicated that they are all willing to work with the university and closer to the students. For the incubators to be more active in both entrepreneurial education and to focus more and differently on students their assignments has to change, meaning the orders have to come from the higher administration.

The ecosystem, which the entrepreneurs indicated to be extremely important in order to make entrepreneurship grow, is also an interesting finding for this study. Furthermore, an interesting speculation is that the existence of the incubators as support systems indicates that the entrepreneurial ecosystem is not functioning correctly. The incubators state the importance of assisting young individuals in becoming entrepreneurs by faster the processes in establishing a business. The process from an idea to a new venture is both vulnerable and valuable. The process is vulnerable in the sense that 'mistakes' and/or wrong decisions can have big consequences. However, as the entrepreneurs indicate, learning from the mistakes is extremely valuable. This is also very important for future research, to investigate the importance of the incubators as well as investigating the young entrepreneurs they have already assisted. Uppsala region and

Uppsala University (the triple helix model) has to work together for the entrepreneurial ecosystem to be in its right function.

While mingling and having fun, the senior entrepreneurs state that they have met many of their most important stakeholders. Clustering is stated by the incubators to be very important for the young entrepreneurs and the students state the need to increase their network as well as having fun is important for them. This indicates that clustering and mingling are extremely important factors that cannot be underestimated in the context off more growth in entrepreneurship as well as for the young entrepreneurs. The clustering of individuals can be both in the form of unorganized mingling and in more professional organized meetings. What does this mean, and can the incubators be more active in these areas? This is extremely important to investigate further and to be recognized, if not in academic research then in the administration of the incubators and the university in the relation to entrepreneurial education.

One can argue that this studies selection of participants is too limited to fully answer the questions or properly discuss the subjects above. However, this study has with the most accuracy interpreted the actors' view and can therefore give a wide overview of the needs and requirements of young individuals becoming entrepreneurs. As a suggestion for further research, each and every one off the subjects above are very important topics for future investigation. The ecosystem, i.e. the environmental environment seems to be extremely complicated and therefore it will be very interesting to follow future studies and further investigations on this topic and the creation of theories and methods as well as the incubators' participation in entrepreneurial education in the future.

Chapter 10. Conclusions and suggestions to Drivhuset's new project

According to the main themes found when analysing and interpreting the empirical result (the view's from the three actors) with the selected theories as well as this study's findings and discussions, it is this study's conclusions that what young individuals need/require in order to become entrepreners is: putting the theories into action, learning through entrepreneurship and feeling the support from the environment. These conclusions have been categorized into: to put, to learn and to feel and are described below.

- **To put** the theories into action. The young individuals need more action-based activities and real life experiences. The young individuals (the future entrepreneurs) need to create their own contacts and to know that entrepreneurship is about action and not about finding the 'right idea '. It is important to put all the time and effort the young individuals have into the new ventures, time is money. Capital is also identified as a big obstacle but analysed in this study to be a need for young entrepreneurs when it comes to the dedication to their ideas.
- **To learn** entrepreneurship through entrepreneurship in the form of learning-by-doing. To experience challenges and to be challenged – will bring out the young individuals willingness to becoming entrepreneurs. To do that, the young individuals need to feel that they are being pulled and not pushed into becoming entrepreneurs. This is considered, in this study, to be related to the importance of motivating the young entrepreneurs or their need to feeling motivated.
- **To feel** that the entrepreneurial environment is supporting the students in creating values. This means that in the entrepreneurial environment or the ecosystem is essential for young individuals in becoming entrepreneurs. The right situation for their business ideas to grow has to be available in combination with customers that are interested in participating in the development of a business or a technological project. Moreover, finding stakeholders that are willing to create the situations or the ecosystem is also very important. As stated in this study in chapter 6.2.3; "It is a combination of environmental stimulus, cooperation of various sciences and the conditions that enables the growth of new ventures as well as situations where everyone works in the same direction."

From an entrepreneurial educational point of view it is this study's conclusions, that what the young individuals need in order to be educated in becoming entrepreneurs, is an access to a venture creation programs. Furthermore and as an end conclusion, in order to contribute practically, the main findings and conclusions will form a suggestion on how to improve this study's empirical case as seen in next section.

10.1 Drivhuset's new project - A Venture Creation Project

In the literature, it is stated that the requirements of the universities toward incubators are to provide entrepreneurs (students and researchers) with active and appropriate management support; as well as financial, technical and commercial networks; an a creative growth environment with associated office services to enable them to commercialize their researches (Swedish Incubators & Science Parks n.d.). In this study, it becomes clear that the incubators are important for more than the above requirements. The incubators are important for entrepreneurial education as the following studies indicates: (Kirby 2004; Rasmussen & Sørheim 2006; Vincett & Farlow 2008; Scillitoe and Chakrabarti, 2010; Ollila and Middleton, 2011; Lackéus and Middleton 2015). However, the incubators have different assignments and for them to participate in entrepreneurial education it has to be a part of their assignments. Also, the entrepreneurial education programs at Uppsala University have to be designed to include incubators. Drivhuset is mainly focused on young entrepreneurs. As stated in the main findings and in the conclusions, a venture creation project would fulfil the students' needs from an educational point of view. Therefore, the main suggestion to improve Drivhuset's new project is to focus on the design of venture creation programs. By doing that, it is the author's main conclusion that Drivhuset will fulfil the requirements of young individuals in becoming entrepreneurs.

As an end suggestions it seems from the interviews that the students are experiencing the entrepreneurial courses differently. As an example one student group indicates that realizing someone else's ideas will not increase their entrepreneurial capacities and another student group suggests that making plans for companies or/and work in real cases would give them the opportunities to learn-by-doing. The statement in Vincett and Farlow's study that students don't build the commitment to ideas that are ordered is very important in the context of the senior entrepreneurs giving the students ideas to realize. The students are requesting more action-based activities available in their studies and with its new project Drivhuset can fulfil the students' requirements.

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