**Mentorship in entrepreneurship education: Examining conditions for entrepreneurial learning among students**

Gustav Hägg

Sten K Johnson Centre for Entrepreneurship, Lund University, Sweden

Email: gustav.hagg@fek.lu.se

Diamanto Politis

Sten K Johnson Centre for Entrepreneurship, Lund University, Sweden

Email: diamanto.politis@fek.lu.se

Paper presented at the 29th RENT Conference, Zagreb, Croatia, 19-20 November 2015

**Abstract**

In this study we examine how formal mentorship as a pedagogical intervention facilitates learning for students engaged in experiential entrepreneurship education. Based on diary method and follow-up interviews we build a process model of how mentorship relations are initiated and developed over time to gain an understanding on what initial conditions are important for generating a prosperous learning environment, and discuss why certain relations develop different forms of learning outcomes based on how these relations mature over time. The findings suggest that psychosocial support is important in the early stage, where motivation and commitment from the mentor creates trustfulness. Although students have varied experience of the mentorship relation, mentorship program is conceived as a valuable pedagogical aid in experiential entrepreneurship education.

**Introduction**

Entrepreneurship education is in vogue, and has since its inception in academia seen an enormous growth (Katz, 1991, 2003, 2008; Mwasalwiba, 2010). This growth has increased the interest among scholars to understand how different pedagogical and instructional methods could aid lecturers in how to organize and carry out teaching activities as to enhance the learning outcomes for students (Fayolle, 2013; Fayolle & Gailly, 2008; Solomon, Weaver, & Fernald, 1994). Much of this research has relied on findings from studies of entrepreneurial learning. This stream of research suggest that engaging in entrepreneurship can be conceptualized as an experiential learning process (Cope, 2005; Dhliwayo, 2008; Gibb, 1993; Johannisson, 1991; Mitchell & Chesteen, 1995; Politis & Gabrielsson, 2009), where learners develop their knowledge base by iterating between processes of active experimentation and reflective observation (Cope & Watts, 2000; Deakins & Freel, 1998).

In relation to the experiential learning process it has been argued among scholars of experiential education that learning from and through experience demands a holistic view (Itin, 1999), where individuals act and gain knowledge through multiple sources (Roberts, 2012). This implies that experiential learning is generated through a broad variety of learning activities, such as individual achievements, peer-learning, learning from experienced facilitators and experts, and the surrounding educational and social environment (Itin, 1999). In experiential entrepreneurship education these different sources of learning have received increased attention as a mean to develop an environment that tries to mirror the entrepreneurial process and its stakeholders (Lackéus & Williams Middleton, 2015; Politis, 2005). In line with this specific view on learning, mentorship has gained increased attention as a potential pedagogical aid for facilitating entrepreneurial learning among students engaged in experiential entrepreneurship education (Gimmon, 2014; Lefebvre & Redien-Collot, 2013), where the primary focus is on learning-by-doing activities in a group setting and a network context (e.g. Rasmussen & Sørheim, 2006).

In organizational contexts, mentorship is largely recognized as a positive support structure for learning and personal career development (e.g. Bozeman & Feeney, 2007; Godshalk & Sosik, 2003; Kram, 1983) where mentorship is described as an intervention where a more experienced person takes on the role of guiding an inexperineced person.

In an entrepreneurship education setting, mentorship could be described as a support mechanism, where a student is paired with an experienced entrepreneur or businessperson taking on the role as mentor, from which the student receives a personal support during his/her entrepreneurship education. The mentorship relationship creates opportunities to discuss personal or business-related issues during the education, with a primary focus to support the student’s development as an entrepreneur.

Although mentorship has been highly recognized as positive in enhancing learning and career advancement in organizational contexts (e.g. Kram, 1983; Ragins & Kram, 2007; Ragins & Cotton, 1999), there is surprisingly little research into mentoring support for entrepreneurs in general (St-Jean & Audet, 2012) and in educational settings in particular (Mills, Barakat, & Vyakarnam, 2013). The few studies that do exist seem to support that mentorship can be beneficial in entrepreneurial contexts (e.g. Gimmon, 2014). By including a mentor in the learning process, novice entrepreneurs have for example been found to develop cognitive and affective skills, which in turn lead them to be better at identifying opportunities and getting a more coherent understanding of the start-up process (St-Jean, 2012; St-Jean & Audet, 2012). Adding to this, in a study by Deakins, Graham, Sullivan, and Whittam (1998, p. 159) “*the role of the mentor was seen as highly important in the early stage learning period when novice entrepreneurs have to learn how to handle change, crisis and make strategic decisions*”. However, despite the valuable contributions made there is so far little theory or insights informing about what aspects and conditions that are of importance for developing a mentor relationship that in the end generate significant learning. This issue could be postulated as extremely important when designing pedagogical methods in experiential entrepreneurship education.

Against this background, the aim of the study is to examine how formal mentorship as a pedagogical intervention facilitates learning for students engaged in experiential entrepreneurship education. The context of the study is a one-year master program in Entrepreneurship at Lund University. The master program is embedded in an experiential learning pedagogy (e.g. Politis, 2005) where students are starting new ventures based on business ideas that they develop during their education. Each student is matched with a mentor who is asked to challenge and support the student during his or her studies. In relation to this specific context the study examine how the mentorship relation develops over time, from its initial stage of familiarization to the final phase of actual learning outcomes that has been developed through the mentor relation. We follow the process through the diary-interview method (Zimmerman & Wieder, 1976) that focuses on capturing actual processes and limiting hindsight biases through weekly diary reporting, which is then followed up through focused interviews based on the diary insights. We build a process understanding of how formal mentorship relations are initiated and develop over time to gain an understanding on what initial conditions that are important for generating a prosperous learning environment and discuss why certain relations develop different forms of learning outcomes based on how these relations mature over time.

The rest of the paper is structured as follows. The next section provides a theoretical background including a discussion about experiential entrepreneurship education, mentorship, entrepreneurial mentoring, and a framework for understanding entrepreneurial mentoring in education. This is followed by a method discussion. Thereafter follows an empirical discussion, which leads into the empirical analysis and discussion. The paper is ending with some concluding implications.

**Experiential entrepreneurship education**

Contemporary research discussions in entrepreneurship education has intensified the use of experiential learning theories to inform scholars how to design and develop courses and programs adapted to how entrepreneurs learn (Lackéus & Williams Middleton, 2015; Mwasalwiba, 2010; Pittaway & Cope, 2007; Rae, 2009; Rasmussen & Sørheim, 2006). This type of experiential entrepreneurship education has shown to provide students with a range of highly valued qualifications, including problem solving and networking skills (Johannisson, Landstrom, & Rosenberg, 1998), ability to assume risks and make decisions in uncertain environments (Kyrö & Tapani, 2007), endurance and self-efficacy (Zhao, Seibert, & Hills, 2005). These entrepreneurial qualifications have in several empirical studies furthermore been recognized as critical assets for the survival and success of new ventures (Shane, 2003).

Through the entrance of a more experiential pedagogy in entrepreneurship, different instructional methods have received attention, where informal learning methods have increased due to its experiential nature (Itin, 1999; Roberts, 2012). Informal learning differs from the traditional formal learning seen in classroom-based lectures through its loose structure and shift of control from the teacher to the learner (Marsick & Watkins, 2001). Marsick and Watkins (2001) describe informal learning as being at the heart of adult education, with its focus on life experiences. The focus on life experience is also the main vehicle in experiential learning (Kolb, 1984; Roberts, 2012), where attention on the learning process shifts from teacher-oriented education towards a more student-oriented approach. This shift in the learning process changes the approach of how to carry out learning activities from the one-sided classroom-based lecture towards informal activities that acknowledge different learners need. Examples of informal learning methods include mentoring, coaching, self-directed learning, and networking activities (Marsick & Watkins, 2001). In relation to these examples different forms of learning is considered to be developed. Mentoring is for example a kind of expert-novice learning activity, whilst self-directed learning has its attention on developing the individual’s own self-understanding seen for example in the use of reflective diaries, and networking could be viewed as a type of peer learning where individuals make use of each other when grasping new tasks and subjects. Together these different learning activities create a more collaborative and supportive environment where individual learners could find their preferred style of learning (Kolb, 1984). The process of informal learning with it focus on life experience has started to become more considered among scholars interested in entrepreneurial learning in educational settings (Gibb, 1993; Holman, Pavlica, & Thorpe, 1997; Pittaway & Cope, 2007; Taylor & Thorpe, 2004).

An experiential education approach includes the social context into the learning, creating a more authentic learning situation. It has been proposed that students in entrepreneurship learn best by sharing theories and experiences with each other through experiential learning (Pittaway & Cope, 2007), implying that learning is not only an individual undertaking, but is developed through transactions with peers, facilitators and mentors, and other related stakeholders within the environment (Roberts, 2012).

By making the entrepreneurial learning process more authentic through the use of experiential pedagogy it could be postulated that students will develop several different competences as suggested important by Johannisson (1991). Johannisson (1991) identified five core competences related to learning entrepreneurship; know-what, know-how, know-who, know-when and, know-why. In the majority of entrepreneurship educations the main focus has often rested on know-what (e.g. Hägg & Gabrielsson, 2014) and thereby leaving out other competencies that not only are necessary but often critical when engaging in new venture creation. Know-how competence is to a highly extent connected to experience, while know-who is related to networking abilities (Johannisson, 1988). The competence of knowing when and why has in the learning literature been addressed reflective thought (Rodgers, 2002), metacognition (Flavell, 1979; Vermunt & Verloop, 1999), conditional knowledge (Schunk, 2012), and self-regulated learning (Schunk, 2012; Zimmerman, 1990). Embedded in this scholarly literature the current study builds on these five competences as a means to identify various types of knowing that mentorship might support and contribute with.

***Mentorship***

Mentorship is generally defined as a developmentally orientated relationship where a more experienced person helps to guide a less experienced person (Miettinen, 2006), implying that there is a knowledge transfer within the relation. The mentor relationship may be informal or formal, it may be planned or spontaneous, and the duration of the relation is highly context dependent (Crisp & Cruz, 2009). Informal mentoring have been shown to develop more organically where the mentor and mentee finds each other through mutual interests, where the mentorship is often focused upon long term goals (e.g. Crisp & Cruz, 2009; Ragins & Cotton, 1999). On the other side, formal mentoring is often organized through a third actor (e.g. educational institutions, business support institutions, governmental interventions), which makes it more structured and where the matching process between mentor and mentee is often carried out by a third part (Crisp & Cruz, 2009; Ragins, Cotton & Miller, 2000). The matching in formal mentoring programs is often based on the mentor’s competence and prior work experience over relational compatibility (Ragins et al., 2000). Informal mentoring is also more spontaneous than formal mentoring and often the informal mentoring relations endure over longer period of times than formal mentoring relations (Bisk, 2002; Ragins & Cotton, 1999), due to difference in initial character, structure and purpose (Allen, Eby & Lentz, 2006; Crisp & Cruz, 2009). Formal mentoring is on the other hand often carried out in a context where it runs over a specific period of time, and therefore a more planned approach of matching mentor and mentee is needed (Allen et al., 2006; Wanberg, Kammeyer-Mueller & Marchese, 2006). In this study the focus is on formal mentoring and how this could serve as a pedagogical method for stimulating learning in entrepreneurship students.

In regards to organizational settings, mentoring has a long history, described as when an older more experienced organizational member takes on the role of mentoring a younger inexperienced organizational member, the mentee. The mentorship is here conceived as an element to foster the mentee’s personal and professional development (Higgins & Kram, 2001), where a main agenda is to provide additional support and experience for the mentee to climb the organizational ladder (Kram, 1985).

In higher education mentorship is often used to provide a link between theory and practice (Kram, 1985; Kram & Isabella, 1985). While the research evidence across disciplines remains mixed on its effectiveness in the educational environment (Ehrich, Hansford, & Tennent, 2004; Long, 1997), mentorship is generally associated with positive outcomes for mentees in the form of career advancements, improved skills and psychosocial support (e.g. Ragins & Kram, 2007). This is further acknowledged by Ragins et al. (2000) who concluded that formal mentoring has equal potential as informal mentoring for generating positive learning outcomes if the relationships are seen as satisfying. Career support and improved skills are generally related to organizational advancement where the mentor acts as a sponsor by making the mentee visible among organizational members, coaching, testing and challenging the mentee through assignments, and acting as a protector of the mentee (Allen et al., 2004; Kram, 1985). Psychosocial support refers to “those aspects of a relationship that enhance an individual’s sense of competence, identity, and effectiveness in a professional role” (Kram, 1985, p. 32). Examples of psychosocial support are, role modelling, acceptance and confirmation of the relationship, counselling from the mentor, and development of friendship (Allen et al., 2004; Kram & Isabella, 1985; Ragins & Kram, 2007). On the other hand there has also been research conducted on proximal mentee learning outcomes, and how they materializes in both informal and formal mentoring relationships (e.g. St-Jean & Audet, 2012; Wanberg, Welsh & Hazlett, 2003). From this research it could be concluded that mentorship might result in mentee’s acquiring different types of learning, such as cognitive, skill-based, affective, and enhanced social networks (Wanberg et al., 2003). These types of learning are highly related to the five competences described by Johannisson (1991), seen as important for learning entrepreneurship.

***Entrepreneurial mentoring***

Mentoring in organizational contexts has been argued as important for supporting a younger and more inexperienced employee to climb the organizational ladder and to add a supportive structure for novices in the work experience (e.g. Kram, 1985; Allen et al., 2004). It has also been found that mentoring in organizational contexts develop psychosocial support and career-related support for the mentee’s. However, when turning the attention to an entrepreneurial context, and especially the start-up phase, the outcomes of mentoring might be perceived differently, since the mentors role is not tied to a organizational community where both parts of the relation strives towards a common goal, implying that the career-related support might differ in regards to both means and ends. Instead, the mentor in an entrepreneurial context takes on the role of guiding a novice entrepreneur on the bases of the novice’s needs to go through the initial start-up stages, where the mentor is not part of the organization-in-creation, and has not the same emotional bond to the organization and neither any actual responsibilities in the case of failures. In this respect, it could be argued that mentorship might differ in an entrepreneurial context compared to an organizational context. Both in terms of the mentor’s responsibilities to the mentee in question, but also in terms of the mentee’s needs and wants, as the primary goal for a novice entrepreneur is neither to localize itself in an organizational context nor to climb a hierarchical ladder, but to develop one self and one’s venture.

Bisk (2002, p. 268) concluded that once the novice entrepreneurs got over the anxieties of discussing their businesses with their mentors they were keener on continuing the relation even after the formal program had ended. Bisk’s (2002) findings implies that there is a certain threshold that the relation needs to overcome in the initial stage, but what lies behind this threshold was not further discussed in his findings. Based on the above discussion, it can be argued that the underlying conditions for how mentorship relations develop and generate a fruitful learning environment is crucial in order to assess the potential benefits from mentorship programs in entrepreneurial settings.

According to St-Jean (2012) a common formula for a mentor-mentee relation, is to pair a novice entrepreneur with an experienced entrepreneur, where the mentor acts as an advisor giving room for reflection to help the mentee avoid costly and even fatal mistakes during the start-up process. The mentor-mentee relation is also built on a voluntary relation striving to increase for example the mentee’s learning in decision-making, opportunity recognition, and networking skills (Audet & Couteret, 2012; Bisk, 2002; St-Jean & Audet, 2012), which in turn makes the relation more affective than cognitive (St-Jean & Audet, 2012). In an entrepreneurial context, Sullivan (2000, p. 163) described that the mentor’s role is “*to enable the entrepreneur to reflect on actions and, perhaps, to modify future actions as a result; it is about enabling behavioral and attitudinal change. In all, it is about facilitation that enables the entrepreneur to dissect, reflect and learn from what could be termed critical incidents*”.

One important aspect that could be drawn from Sullivan’s (2000) study is the findings about reflection and critical incidents, which is something that a mentor support could assist in by constantly questioning the entrepreneur’s decisions made and hence fostering a reflective learning approach of the novice entrepreneur. This is also further noticed in Deakins and Freel (1998)who argue that that there is a role to play for mentors that could aid the novice entrepreneurs to reflect on experience and to absorb knowledge from learning events.

In relation to the above discussion about potential benefits of entrepreneurial mentoring, it seems fair to argue that mentoring is both a viable and a highly potent pedagogical aid that can be used by educators and instructors to enhance the learning experience of students undertaking entrepreneurship education. Since mentorship is seen as an informal type of learning, it is a pedagogical aid that goes well in line with experiential entrepreneurship education where students engage in learning-by-doing activities while at the same time needing professional guidance, advice and assistance throughout the new venture creation process (e.g. Mills et al., 2013; Rasmussen & Sørheim, 2006). Lefebvre and Redien-Collot (2013) argue for four communicational strategies in entrepreneurial mentoring within experiential entrepreneurship education; persuasion, engagement, criticism, and provocation. These four communicational strategies are used by mentors to impact the novice entrepreneurs’ abilities and learning in the new venture creation process. Lefebvre and Redien-Collot (2013, p. 386) concluded that mentors choose communicational strategy based on two factors: the goal of the mentor in the business support situation (market conformity or differentiation), and the targets or referential objectives they use when discussing with the mentee. In relation to experiential learning and mentorship, persuasion and engagement are considered to trigger causal behaviors, whilst the use of provocation and criticism seem to trigger effectual behaviors among the mentees’ (Lefebvre & Redien-Collot, 2013). In regards to the previous discussion on the benefits of mentoring it could be concluded that mentorship is highly dependent on behavioral as well as communicative compliance between the mentor and mentee for generating a fruitful environment that generates and develops learning. In this sense, the initial conditions and the relational aspects that are developed early on plays an important role for how mentoring relationships develop over time. This implies that the outcomes of the initial contacts between a mentor and mentee impacts the duration and intensity of the relationship, which is particularly important for formal mentorship programs as this type of mentorship is not developed in an organic manner where the two parts seek each other out without involvement from a third part.

**A framework for entrepreneurial mentoring in education**

In the previous sections experiential entrepreneurship education, mentoring and entrepreneurial mentoring has been discussed and their connections for understanding how mentorship could act as a pedagogical method. Through this discussion a number of important aspects have been brought forward for understanding how to initiate and carry out a mentorship program from previous research. Although there is evidence of cognitive and skill-based learning outcomes in entrepreneurial mentoring (St-Jean & Audet, 2012) there is less evidence of how these outcomes develops and materializes, and what role enhancement of networks play for entrepreneurial mentees. In line with this we use mentoring literature to study the initial conditions of how entrepreneurial mentorship relations in educational settings is initiated and develop over time. It has been argued that mentorship yields psychosocial and career-related support, and that this is developed through an open and communicative relation, but in relation to an entrepreneurial context and more specifically in an educational setting these aspects have been less discussed. Especially in relation to mentorship programs that has a formal structure, where the initial contact and selection process is carried out by a third part and not unfolding in an organic manner as in the case of informal mentoring. This could be postulated as highly important aspects to find out when developing and structuring formal mentorship programs that are sought to act as a pedagogical aid for generating learning among students.

We analyze our empirics with the following questions in mind:

* What are the key aspects in the initial relationship between a mentor and a mentee for creating a communicative environment that stimulates learning, and why are these aspects of importance in relation to experiential entrepreneurship education?
* How does the mentor and mentee overcome barriers of getting to know each other in formal mentoring programs to develop a sharing relationship?
* Previous literature has argued that psychosocial support is of importance, but what conditions are needed for creating this psychosocial support, and how does career-related support transcend into an entrepreneurial context when incentives from the organizational context is taken away from the equation?
* Are there differences in relation to development of different types of competences transferring from the mentor to the mentee, and how do these differences depend on how the relations unfold?

In the rest of this study we will continue to explore how mentorship programs can be used as a pedagogical intervention that facilitate learning for students engaged in experiential entrepreneurship education. Given the current state of the field we will employ a process approach through the use of the diary-interview method where we follow the learning experience and outcomes of a group of students who have been assigned mentors to aid them in their personal and professional development as entrepreneurs. Our process approach allow us to collect and analyze qualitative empirical data aimed at enriching our understanding of conditions in the mentor relationship that facilitate learning for students engaged in experiential entrepreneurship education.

**Method**

The context of the study is a one-year master programme on entrepreneurship organized and offered by one of the oldest and largest universities in Sweden. The entrepreneurship programme consists of a set of compulsory courses dealing with key issues related to the process of new venture creation. In parallel to these courses, the students are initiating and carrying out an entrepreneurial project, which provides them with unique opportunities to be fully involved as entrepreneurs in a start-up process thereby enabling them to get real-life experience from starting up a new independent venture.

All students enrolled in the program are assigned a personal mentor in the beginning of their studies as a part of the experiential learning pedagogy that forms the basis of the program. In the mentorship program students are matched with experienced and engaged entrepreneurs and professional business developers. The matching process made by the instructor is based on an initial meeting between the students and the mentors where the students and mentors get to rank the top-three persons that they would like to work with. The mentoring relationship is intended to support the personal and professional development of the students by providing a valuable source of experience related to the entrepreneurial process, thereby making the students better prepared for a future career as entrepreneurs.

In line with our interest in understanding how mentorship relations develop and unfold over time we employ a process perspective based on weekly logbooks and follow-up interviews with students enrolled in the program. Hence, the study follows the diary-interview method (Zimmerman & Wieder, 1976), which focuses on grasping important nuances reported in personal diaries and which serve as a foundation for the follow-up interviews. In this sense the diary-interview method tries to decrease observer influence, by having the diaries as an observational log, which is then used as a base for the following interviews (Zimmerman & Wieder, 1976).

The logbooks used in the study were written between December 2011 and May 2012. In their weekly logbooks the students describe the progress they make in the new venture creation process as well as critical incidents that have occurred during the past week (Cope & Watts, 2000; Flanagan, 1954). In this respect, the logbooks is a documentation of the students’ behaviour and their development over time.

All selected students in the study had handed in at least 15 out of 20 weekly written logbooks, representing 75 percent of completed logbooks. The richness criterion of 75 percent was set to gain extensive insights in how the students in words pictured their entrepreneurial process and their mentorship relation over the logbook-writing period.

The logbooks followed a pre-structured format, which Zimmerman and Wieder (1976) describe as a structured diary method. The logbooks were also solicited with a pre-designed structure following the form of interval-contingent design. The interval-contingent design is the oldest method of daily event recording, and requires participants to report on their experiences at regular, predetermined intervals (Bolger, Davis, & Rafaeli, 2003), which ensured a rich overview of their processes.

The follow-up interviews where conducted during the autumn and winter of 2012/2013, allowing the students to reflect back on their educational journey towards becoming entrepreneurs. The personal interviews were focused on issues that captured the mentorship relation along with key aspects found in the students’ logbooks. In this respect, the interview questions served as a mean to gain a deeper understanding of the accounts made in the logbooks and to further elaborate on the different phases that had taken place during their year in developing the mentorship relation.

***Description of the sample students***

What follows is a description of each student and their mentor’s background, pictured in the table. Additionally, the students business idea, progress and mentor relation are addressed in the table to give an insight in the different students and their mentor experience included in the study. To make sure of confidentiality, pseudonyms are used throughout the text. After the table follows a short description of each student and mentorship relation.

< Insert Table one about here >

***Adam*** is a male student from Argentina, gaining his bachelor degree from Argentina, majoring in marketing. His working experience is within marketing and sales, and he has been working in countries like Argentina, Italy and Sweden. His business idea that he developed during the program was to import a dairy product considered as a specialty in his home country to the Scandinavian market. Overall, he describes the development of the mentorship relation as highly successful. He realized at the initial mentor-matching meeting that Alice would be a suitable mentor, as she had her background working as a consultant in the Swedish food-industry. Adam told that the collaboration and support from Alice was important for the progress of his start-up. He especially pinpoints fruitful discussions regarding the core business idea, business plan, business model and that his mentor helped him in understanding how the industry worked.

***Ben*** is a male student from Germany, gaining his bachelor degree from the Netherlands where he also acquired working experience in marketing. His business idea, established before entering the program, was to buy LEGO bricks through the second hand market and resell them to collectors. He describes the relation with Bridget as close to perfect. He explained that Bridget’s background as a start-up consultant; working as a business coach making start-ups more efficient and guidance regarding project management, was what he needed. He described that he needed support with issues around project management and making the business more efficient, issues not especially related to industry experience. One important aspect for the mentorship relation was that his mentor really took time of for their meetings, despite her busy schedule. Ben had established his venture before entering the education, and thought that this changed his needs from the mentor relation compared to his fellow students.

***Carl*** is a male student from Sweden, with an educational background from studying finance and entrepreneurship in the U.S. and Sweden. He has developed working experience through starting his own companies. His business idea is to sell male accessories online, which is a start-up that he initiated before entering the program. He described his relationship with his mentor Clark as very open and trustful. Carl got to set the agenda for what type of relation the mentorship should lead to. He described his mentor Clark as a very open entrepreneur with a marketing background, and Clark has since the first meeting focused on Carl’s needs. During the mentorship relation Clark was active in his role as mentor by questioning decisions and aspects concerning the business. Carl believed that Clark was doing this as a way of making sure that the decisions that he made was done on good and solid grounds, so that all aspects concerning the decision was well thought.

***Donna*** is a female student from Sweden who gained her bachelor degree in business and entrepreneurship. She has her working experience from the banking industry. Her business idea that she developed during the program is to make arbitrage profits on pet insurance solutions, by sending pets to Denmark for care due to different price structures. She describes her mentorship experience as somewhat of a jackpot, as her mentor works within the exact same industry that she and her business partner was targeting. Her mentor Denise has her working experience within the animal insurance industry, working as a CEO. In the early stage of the relation, Denise was supportive to Donna’s business idea and helped with any information that she could. Donna got the opportunity to learn from a person with the industry experience she needed. The relationship was not a typical mentor relation, but developed more towards a professional coach relationship, as they early on decided to form a partnership.

***Erin*** is a female student from the U.K. who has her educational background in social studies, majoring in international politics and military history. She has gained working experience through social charity work and developed during the program a social business idea that aimed to set up permaculture farms in Africa. Erin’s mentor Eric has his background as a serial entrepreneur. Erin describes her mentorship relation as somewhat double-edged. On the one hand the relation was good and she gained support when needed, but on the other hand it never reached the target that she hoped, as Eric was not able to help her when it came to more detailed questions and thoughts around her start-up. Even though the relationship was good, the advices Erin received from Eric was rather general, as he had no experience when it came to social entrepreneurship.

**Empirical analysis**

Through the different accounts several conditions of the mentorship relations have been noticed as important for generating an entrepreneurial learning milieu, which could lead to the development of entrepreneurial knowledge. In the following analysis the conditions of motivation, trust, commitment, experience of the mentor, and questioning ability will be addressed. These conditions have been recognized and exemplified throughout the empirical readings, and viewed as important for learning through the aid of a mentor in this specific type of entrepreneurship education.

***Breaking down the barriers – creating psychosocial connections***

From the empirical accounts the focus on psychosocial support has been seen as highly important for fostering a mentoring relationship that could stimulate personal development and learning. Especially the aspects of motivation, trust and commitment have been found significant for creating a relationship based on openness and sharing of information. From the mentee perspective openness and sharing of information might be considered as rather sensitive aspects when entering a start-up process with a novel idea. Therefore to openly discuss one’s new venture idea with a rather unknown individual might be considered as a leap-of-faith from a mentee perspective as ideas are free for all to pursue and sharing these ideas requires trustfulness in the receiving part that he/she will not take advantage of the situation. Although seldom a case, but in the perspective of the mentee it might be a barrier or threshold that needs to be overcome for establishing a fruitful relationship with the mentor.

From the mentee’s perspective motivation was seen as important for developing openness that stimulated information sharing in the relationship. Motivation was largely depicted through the interest that the mentors’ showed in the mentee, both on a personal level and in their business ideas. This recognition of motivation is vivid in several of the cases. For example, Adam explained that his mentor Alice already from the start of their mentoring relationship found his business idea as highly interesting, and that she provided him with specific industry information based on her personal experience. This motivational aspect is also vivid in the mentoring relationship experienced by Donna, but in a different way. Donna’s mentor saw potential in the business idea and initiated a partnership, which increased Donna’s motivational drive and belief in her idea. This development of a partnership changed the scenery of their relation, making it more formalized and professional, where both parts conceived to have something to gain in economic terms. Motivation was consequently seen as important in the initial stage, but also commitment and trust where evident from the empirical accounts. From the interview with Adam, an example of a typical mentor meeting was displayed as follows:

*“The meetings start with something personal moving into my business, becoming more professional… and then we end by discussing personal things, which feels very natural now… but in the beginning of our relationship it felt really artificial.”* (Interview, 2012)

Adam highlights that it has taken some time to establish a good mentoring relation, but through a mutual openness from the start, by being personal, they have established commitment and trust to each other. Their discussions do not only concern his business but rather the entire life situation is intertwined when they meet. This personalization of the mentoring meetings could be seen as breaking down barriers and establishing a mentorship relation that is open and collaborative where commitment and trust lies as a foundation.

The establishment of trust and commitment between the mentor and mentee seems to be essential to generate a prosperous learning environment. If the mentee does not trust and feel the commitment from the mentor, the mentee might feel reluctant to take advices from the mentor into consideration. For example, Donna argued that her mentor Denise seemed to spot potential in her business idea early on, but more importantly, they created a mutual trust between each other, which also rendered in Donna gaining access to important statistics for furthering her business idea. The importance of trust and commitment is further exemplified in Carl’s discussion of his mentor relationship consisting of how he and his mentor developed their relation in the early stage.

*“My mentor made it clear that I was in charge of how I wanted this relation to develop… if I wanted a mentorship related to the education and give feedback, or a mentorship where he acted as a counselor, supporting and guiding me, or a mentorship where he acted as a sounding board for juggling ideas… so he was very open with how I wanted to tailor the relation… everything from how often we would meet and what we would discuss during our meetings, which was very comfortable for me in this early stage.”* (Interview, 2013)

Carl’s initial experience gives insights on the openness in their mentorship relation, where Clark was clear from the start that it was Carl who got to set the frames for what the mentorship should include. This situation created comfort and trust early on, as Clark wanted to make sure that Carl, his mentor, could address any type of issue, not only related to his start-up, but anything that might be bothering Carl in his life. Although being part of a formal structure, the initial frames of the mentorship were informal, which also shows that Carl’s mentor Clark was committed to Carl as a person and not only as an aid in his start-up process.

***Expectations on the mentor’s experience – creating a collaborative relation***

An important condition for creating learning opportunities through the mentorship was related to the experience of the mentor. If the mentee felt that the mentor possessed industry or business experience that was relevant and something that the mentee needed, it seems like the mentee tried to make the most out of this mentorship experience to learn as much as possible. This acknowledgment of the mentor’s experience is however also dependent on how the mentoring relationship has developed during the first couple of meetings. If there was a mutual connection, the mentee seemed to be more open to grasp the knowledge that the mentor was able to provide.

Two important aspects that seem to influence how well the mentee receive and use the mentors’ feedback and advices are: the mentor’s specific industry experience and the trust relationship that is built early on in the mentorship relation. These two aspects influence how the mentee considers advices on their start-up activities, such as development of the business idea and business plan, but also in more general issues concerning the mentees’ personal learning process. For example, Carl argued that he wanted his mentor Clark to provide him with knowledge and experience, since Carl knew that Clark had developed deep experience through years of work within marketing, and by that was able to give him valuable advices that he desired and wanted throughout the mentorship relation. A similar expectation to make use of the mentors’ genuine experience was also emphasized in one of Ben’s logbook entries, where he argued that, “*Bridget’s suggestions and external view generated some great thoughts that I will incorporate in my project, especially our brainstorming for the Dragons at the University event generated great ideas for my pitch.*” Although experience is a very versatile aspect, the mentees that seemed to have generated a mutual trust and committed relationship early on with their mentors were also most likely to have taken active advantage of their mentors’ experience during their mentorship relation. In addition, the findings demonstrated that the type of experience that the mentee’s appreciated was not exclusively related to the area of the mentee’s business but could also be in terms of general business experience. This is recognized in the account provided by Ben, where he gained assistance from his mentor Bridget through her project management skills, which was not particularly related to his core business. Instead, it was rather the mutual relationship established between the mentor and the mentee early on that decided whether the experiences of the mentors were positively received and valued.

Contrasting the expectations of Adam and Ben on their mentors, Erin had her focus on gaining support on her business idea from her mentor Eric, implying that her expectations on the relationship was to provide direct input to her business project. Despite that Erin’s mentor was supportive when they met, Erin did not see the added value of his broad experience as a serial entrepreneur, since he was unable to provide detailed input on Erin’s specific business project. This initial and explicit expectation to gain specific insight and industry knowledge from the mentorship relation was also evident in the account provided by Donna. A difference in Donna’s situation in comparison to Erin was that Erin gained the input that she sought for while Donna’s mentorship relation never became personal and informal. Instead Donna’s relation with Denise became rather formal and developed more towards a professional relationship as they early on formed a partnership, which had economic interest from both sides. Through this economic aspect and the partnership, Donna gained sensitive information about the industry, but at the same time it decreased the informal and personal role that mentorship normally has in developing the mentee’s personal abilities.

***The questioning ability of the mentor and the context of focus for the relation***

The ability of the mentor to question the mentees’ thoughts, decisions and other aspects related to the start-up process is something that has been evident throughout the empirical accounts, but also in the way mentors have provided guidance to the student entrepreneurs’ learning situation. Although students’ have mainly seen mentorship as important for supporting their start-up process, additional support has been acknowledged through the empirics. This broader and more open view on what to gain from the mentorship was especially seen in those relations where the expectations from the mentee were not only focused on the start-up, but rather an extended view in gaining both personal and business advices in general, such as project and time management, alternative views on decision-making, juggling different aspects in life, and strategizing. The broader view on entrepreneurial mentorship could be seen as promising for developing a good mentorship relation early in the process. The mentors might not have specific input to the start-up initially, but through the meetings they develop more specific knowledge about their mentees businesses, and can become more specific in their advices and abilities to question as the mentorship relation develops.

The questioning ability of the mentor was seen as important for several reasons, and is generally a pre-requisite for creating a reflective learning environment where afterthought and multiple perspectives are woven into the experiential learning process. Carl saw this questioning dimension as a sort of security in his entrepreneurial process, arguing: *“it feels safe to have someone that has some experience to juggle ideas with and get a second perspective on things”.* Every time the mentor comes in with his or her view on issues put forward by the mentee, could be, a seed for reflecting on the start-up and learning process. The appreciation of the mentor’s ability to come in with different perspectives based on accumulated business experience is also noticed through Adam’s reasoning. *“We have a plan and a vision that we follow, but sometimes Alice comes with her experience and say no… you are just thinking in theoretical terms… if I where you I would do it this way… it is really good to have different viewpoints in the company”.*

These alternative perspectives make the mentees stop and think things through, which could be considered as a sort of development of knowing why and when to act. In addition, the experienced mentor could act as a counterbalance to the relatively more inexperienced mentees in their decision-making. The mentor’s ability to question and provoke alternative thoughts is also something that Carl stressed as important, which he was inclined to do when presenting a new business idea to his mentor, *“he made me think about what kind of business model that would be the best for attracting customers in the beginning… I have to think about this for a while before approaching customers.”*

It is not only about evoking a sense of know-why and when, but also knowing what and how, which the mentor could contribute with, by questioning and making the mentees think about different perspectives. In this case Carl’s mentor tries to make him think about the importance of developing a workable business model in order to attract customers. By doing so the mentee does not just rush into a new business with a half finished idea, but devotes time to plan for how and whom he or she wants to approach with the new business idea. Although customers are an important part of developing a business, there might also be a good idea to actually plan and strategize around what customer to approach. In these situations the mentors acted as a sounding board that implicitly and explicitly triggered the thought process of the mentees. This triggering initiates what could be termed as reflective thought processes consisting of different perspectives, models and prior knowledge (mostly stemming from the experience of the mentor), which together create alternative possible solutions and paths for making decisions on how to move forward.

**Discussion**

Previous research has indicated that mentorship is a useful intervention for stimulating a reflective learning environment among entrepreneurs, as it has been seen as a generator of thinking through decisions the mentees are facing and aspects concerning the entrepreneurial endeavor (Deakins and Freel, 1998; Sullivan, 2000). However, in order to develop learning from a mentorship relation, this study argues that there are certain conditions that need to be present in the mentorship relation. From the empirical accounts it has become evident that trust is a main component for the establishment of a mentoring relation where learning can be developed. Through trustfulness the mentee is more apt to open up and share thoughts, feelings and problems with the mentor, creating a collaborative learning environment (Taylor and Thorpe, 2004; Hynes et al., 2011).

Although trust might seem like a basic feature in any mentorship relation, it might be so that in a formal entrepreneurial mentoring context it becomes heightened, as openly sharing sensitive and personal ideas are displayed to a relatively unknown person. In comparison to informal mentorship, formal mentorship is developed through external intervention where the matching between mentor and mentee is made by a third part, and not as in informal mentorship where a more experienced peer takes on the role to guide and mentor a more inexperienced peer and where the relationship is often developed organically from collegial friendships.

This focus on building a trustful relation is related to the aspect of psychosocial support (Kram, 1985), where the mentor acts as a role model, counselor and friend. Through the empirical accounts it was evident that psychosocial support play an important role, making the mentorship more informal and personalized, seen in the accounts provided by Adam, Ben and Carl, where the mentorship relation did not only focus on the start-up. To contrast this, the mentorship relation in the account provided by Donna and Erin was much more formalized and focused mainly on business related issues. Donna’s relation developed into a professional relationship through the partnership agreement. Erin on the other hand struggled in her relation, as Eric did not possess the knowledge and experience in the area, which resulted in only occasional meetings. Despite Erin’s argument that Eric was very supportive, their relation never really excelled, as Erin seemed to have rather clear objectives with what she wanted to gain from the relation; specific help with the business idea, which Eric could not assist with.

In previous mentorship studies it has been argued that interpersonal comfort has an impact on the development of mentorship relations, where same-gender relations built closer bonds (Allen, Day, & Lentz, 2005), especially the issue of female mentee and male mentor was seen as complicated in career mentoring. Career mentoring has its emphasis on personal development and skill acquisition, making the mentee climb the corporate ladder (Ragins & Kram, 2007). Furthermore, in the study by Allen et al. (2005) interpersonal comfort in career mentoring was positively related to same-gender relations, but they did not find any differences in building interpersonal comfort between formal and informal mentoring. This study goes somewhat in another direction when it comes to interpersonal comfort and gender, which might be due to the difference in context between career mentoring and entrepreneurial mentoring. It might be so that entrepreneurial and business experience together with trust is conceived as more important in a mentorship relation than gender issues for developing a workable and fruitful relation in the context of entrepreneurial mentorship. It was explicitly recognized in the accounts of Adam and Ben, who had female mentors that difference in gender was not even noticed when building interpersonal comfort and trust. These two relations became rather successful and progressed even after the program had ended, contrasting the findings of Ragins and Cotton (1999), who in their research found that the least good combination was female mentor and male mentee.

Besides the psychosocial and interpersonal comfort issues, also motivation was identified as a key trigger for the development of a functional relation between the mentor and mentee. This was especially noticed in the analysis where the motivational support increased the student entrepreneur’s willingness to work harder with their idea, leading to a more interactive relation where the mentor was able to give feedback (questioning ability) and encouragement to the mentee. The questioning from the mentor opened up new avenues that the student entrepreneur had to take into consideration regarding his or her business and initiated the thought process that is considered as necessary for reflection to occur.

To relate these previous discussions to the five different types of knowing for building entrepreneurial competence (Johannisson, 1991), it could be argued that the different accounts taken together highlights conditions for all five competencies, but no single account exemplifies all of them.

For example, knowing why and when is especially noticed in those mentorship relations that had a more informal character, where issues that not only concerned the start-up were discussed during the mentor meetings. By personalizing the relationships Adam, Ben and Carl opened up for sharing their thoughts, feelings and emotions, which is considered as important for creating a reflective learning environment. By creating a reflective learning environment where the mentor challenged and questioned the mentee, competences of know-why and know-when were stimulated. These competencies are typically regarded as important for regulating one’s learning (Vermunt, 1996), especially in regards to developing knowledge from experience (Roberts, 2012).

In regards to know-who, the account of Donna is most explicitly seen as developing networking abilities through her mentor (Johannisson, 1988, 1998). From the mentorship relation Donna gained access to sensitive and important statistics, but also gained credibility when reaching out to veterinary clinics through the partnership with her mentor. The aspect and importance of know-who was not as evident in the rest of the accounts, but seen as important during the interviews, and something they thought the mentor could contribute with in the initial stage. The reason for this might be a too narrow view from the mentees’ of gaining specific industry experience and network contacts directly related to their business ideas from their mentors. In the account of Adam he initially expected to gain networking benefits through his mentor, but early on realized that his mentor’s network was not in accordance with his needs and instead made use of her general industry experience.

All empirical accounts show traces of gaining know-how, related to the process of starting a new venture. Although the mentees gained different advices from their mentors, all of them got support from their mentors in regards to their business plans, business models etc. This input also generated learning in regards to know-what, as the mentors came in with prior business and entrepreneurial experience that they shared with their mentees’. However, not all gained equally much from their mentors, due to their initial expectations and how the mentorship relation developed over time. In the account of Donnas’ transformation from a mentoring relation towards a professional partnership it became evident that she gained specific skills within the pet insurance industry. This situation is what Audet and Couteret (2012) argue as differentiating coaching where both sides have economic incentives from the more broad view of aid through mentorship. In contrast, Adam and Ben gained more general business advices, such as overview of the industry in the account of Adam, whilst Ben got support in project and time management.

Due to the limited amounts of empirical accounts in the study and its qualitative nature it is not possible to highlight exactly how much or exactly what specific type of knowledge they gained from the mentorship relation. Overall it can be concluded that mentorship can be seen as a useful pedagogical aid in knowledge development through the entrepreneurial learning process. However, depending on the nature and aims from the mentee it is a very versatile pedagogical aid that will develop different types of competences depending on the need and openness of the mentee when entering the mentorship relation. Also the differences between the empirical accounts in regards to previous entrepreneurial experience and establishment of the venture played a part in their approach towards the mentorship relation. Looking beyond the program the three accounts that developed more informal relations where also the one’s that continued their relations with the mentors. This implies that to build a more long-term relation in formal entrepreneurial mentoring contexts there is a need to personalize the relation in an early stage.

**Conclusion**

Through the empirical analysis and discussion certain important conditions have been recognized for creating mentorship relations that generate a learning process beneficial for student entrepreneurs. These conditions are pictured in *model one*, and further discussed in this concluding section.

< Insert model one about here >

*Matching phase*: The model departs from the formal structure of the mentorship program, where the first phase has its focus on the matching process. During this initial phase the students gain knowledge about the mentors areas of expertise, whilst the mentors gain knowledge and insights into the initial business ideas from the students. This is followed by a mingling process that forms the base for ranking the top-three mentors/students that each mentor/student could consider to work with during the duration of the program.

*Familiarization phase*: The second phase is taking place during the first two or three meetings between the mentor and mentee, where the foundation for the continuing relationship is established. During this initial socialization process it has been found that breaking down the initial barriers of openly sharing information (from the mentee) around the business idea and taking in advices from the mentor has been deemed essential for creating a communicative environment. Through openly sharing information it has been argued previously that the mutual commitment to the relation is strengthened, which at the same time builds up trustfulness in the relationship.

*The expert-novice learning process*: Through the familiarization phase of building up trust, commitment and openly sharing sensitive information the abilities to develop a learning process is established. During the third phase the mentee and mentor further strengthen the relation through jointly efforts of developing and discussing the personal learning process undertaken during the year of study and the start-up process that the mentee is going through. In this process the mentor acts both as a support when the mentee needs encouragement, but also as a questioning voice to give alternative perspectives on the mentee’s start-up process. By having built up a trustful initial relation the mentee seems to trust in the experience of their mentors and take into account their advices and alternative perspectives on the matters concerning the start-up process, but also more general advices in life. In this sense the mentors becomes a kind of role model in some cases, but there is also evidences of close friendships that are formed and matured during the program.

*Harvesting phase*: During the expert-novice learning process, psychosocial factors has been developed, but also alternative perspectives on the start-up process and new experiences have been gained through these relationships. In relation to this the final stage of this model is the harvesting phase where different types of knowledge has been gained by the mentees’ from their mentorship relations. Although the mentoring dyads reported in this study varied quite much, it seems that all mentees’ gained new insights and process knowledge from their mentors. Specifically, the three mentorship relations that took a more informal character seemed to generate closer relationships, opening up for a more reflective and questioning milieu, and generated a support for the mentee that has continued after the formal program ended. In more specific terms, it was evident that the mentors contributed with insights in the business plan writing process, the business modeling process, and through sharing their previous and present entrepreneurial experiences, which increased the mentees’ competences in knowing what to do and how to do, but more importantly knowing why and when to use the knowledge gained in upcoming situations.

**Implications for future research and practice**

Based on the analysis and discussion it has been argued that conditions for entrepreneurial mentorship is highly dependent on psychosocial factors (Allen et al., 2005; Allen, Eby, Poteet, Lentz, & Lima, 2004; Kram, 1985). Through the empirical accounts, the psychosocial factors such as motivational support, commitment and trust has been noticed as highly important in the early development of the mentorship relation. The findings from the accounts in conjunction with the above discussion have generated some specific implications for how and what to expect when using mentorship as a pedagogical aid in entrepreneurship education.

Firstly, psychosocial support and interpersonal comfort does indeed matter when developing a workable mentorship relation. The findings from this study imply that trust, openness, and entrepreneurial or business experience of the mentor has a more important place than same-gender constellations, for creating a relation, and breaking down potential interpersonal barriers. These initial conditions are therefore important to have in mind when informing both students and potential mentors if deciding to use mentorship in entrepreneurship education.

Secondly, motivation and commitment from the mentor side was seen as important for the mentee to open up and share thoughts, feelings and ideas, both in relation to the start-up process and to the personal situation that the mentee faced in juggling education, start-up and personal life. This implies that becoming a mentor should be based on a willingness to aid the mentee, where making time for meetings and being present in the eyes of the mentee are important conditions put on potential mentors.

Thirdly, the study does provide support that mentors contribute in developing entrepreneurial competences in accordance with the different types of knowing (Johannisson, 1991). However, due to versatility in expectations from the mentee, previous experience and differences in stages of the start-up process, it was not possible in the study to pin down a specific type of knowing that the mentorship aids in. The empirical accounts provided different insights on how the mentor aided in the students’ entrepreneurial learning processes. The type of competences developed is instead highly individual depending on the mentee’s needs from the mentor, and much related on whether the relation goes from formal to becoming more informal in character.

**References**

Allen, T. D., Day, R., & Lentz, E. (2005). The role of interpersonal comfort in mentoring relationships. *Journal of Career Development, 31*(3), 155-169.

Allen, T. D., Eby, L. T., & Lentz, E. (2006). The relationship between formal mentoring program characteristics and perceived program effectiveness. *Journal of Personnel Psychology, 59*, 125-153.

Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E., & Lima, L. (2004). Career Benefits Associated With Mentoring for Proteges: A Meta-Analysis. *Journal of applied psychology, 89*(1), 127.

Audet, J., & Couteret, P. (2012). Coaching the entrepreneur: features and success factors. *Journal of small business and enterprise development, 19*(3), 515-531.

Bisk, L. (2002). Formal entrepreneurial mentoring: the efficacy of third party managed programs. *Career development international, 7*(5), 262-270.

Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual review of psychology, 54*(1), 579-616.

Bozeman, B., & Feeney, M. K. (2007). Toward a useful theory of mentoring a conceptual analysis and critique. *Administration & Society, 39*(6), 719-739.

Cope, J. (2005). Toward a dynamic learning perspective of entrepreneurship. *Entrepreneurship Theory and Practice, 29*(4), 373-397.

Cope, J., & Watts, G. (2000). Learning by doing–an exploration of experience, critical incidents and reflection in entrepreneurial learning. *International Journal of Entrepreneurial Behaviour & Research, 6*(3), 104-124.

Deakins, D., & Freel, M. (1998). Entrepreneurial learning and the growth process in SMEs. *The Learning Organization, 5*(3), 144-155.

Deakins, D., Graham, L., Sullivan, R., & Whittam, G. (1998). New venture support: an analysis of mentoring support for new and early stage entrepreneurs. *Journal of small business and enterprise development, 5*(2), 151-161.

Dhliwayo, S. (2008). Experiential learning in entrepreneurship education: A prospective model for South African tertiary institutions. *Education + Training, 50*(4), 329-340.

Ehrich, L. C., Hansford, B., & Tennent, L. (2004). Formal mentoring programs in education and other professions: A review of the literature. *Educational administration quarterly, 40*(4), 518-540.

Fayolle, A. (2013). Personal views on the future of entrepreneurship education. *Entrepreneurship & Regional Development, 25*(7-8), 692-701.

Fayolle, A., & Gailly, B. (2008). From craft to science: Teaching models and learning processes in entrepreneurship education. *Journal of European Industrial Training, 32*(7), 569-593.

Flanagan, J. C. (1954). The critical incident technique. *Psychological bulletin, 51*(4), 327.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry. *American psychologist, 34*(10), 906.

Gibb, A. A. (1987). Enterprise culture—its meaning and implications for education and training. *Journal of European Industrial Training, 11*(2), 2-38.

Gibb, A. A. (1993). Enterprise Culture and Education Understanding Enterprise Education and Its Links with Small Business, Entrepreneurship and Wider Educational Goals. *International Small Business Journal, 11*(3), 11-34.

Gimmon, E. (2014). Mentoring as a practical training in higher education of entrepreneurship. *Education + Training, 56(8/9)*, 814-825.

Godshalk, V. M., & Sosik, J. J. (2003). Aiming for career success: The role of learning goal orientation in mentoring relationships. *Journal of vocational behavior, 63*(3), 417-437.

Higgins, M. C., & Kram, K. E. (2001). Reconceptualizing mentoring at work: A developmental network perspective. *Academy of Management Review, 26*(2), 264-288.

Holman, D., Pavlica, K., & Thorpe, R. (1997). Rethinking Kolb's Theory of Experiential Learning in Management Education The Contribution of Social Constructionism and Activity Theory. *Management learning, 28*(2), 135-148.

Hägg, G., & Gabrielsson, J. (2014). *From action to ACTION: A systematic review of research on pedagogy in entrepreneurship education.* Paper presented at the 3E Conference-ECSB Entrepreneurship Education Conference. Turku, Finland.

Itin, C. M. (1999). Reasserting the philosophy of experiential education as a vehicle for change in the 21st century. *Journal of Experiential Education, 22(2)*, 91-98

Johannisson, B. (1988). Business formation- a network approach. *Scandinavian Journal of Management, 4*, 83-99.

Johannisson, B. (1991). University training for entrepreneurship: Swedish approaches. *Entrepreneurship & Regional Development, 3*(1), 67-82.

Johannisson, B. (1998). Personal networks in emerging knowledge-based firms: spatial and functional patterns. *Entrepreneurship & Regional Development, 10*, 297-312.

Johannisson, B., Landstrom, H., & Rosenberg, J. (1998). University training for entrepreneurship—an action frame of reference. *European Journal of Engineering Education, 23*(4), 477-496.

Katz, J. A. (1991). Endowed positions: entrepreneurship and related fields. *Entrepreneurship Theory and Practice, 15*(3), 53-67.

Katz, J. A. (2003). The chronology and intellectual trajectory of American entrepreneurship education: 1876-1999. *Journal of Business Venturing, 18*(2), 283-300.

Katz, J. A. (2008). Fully Mature but Not Fully Legitimate: A Different Perspective on the State of Entrepreneurship Education\*. *Journal of Small Business Management, 46*(4), 550-566.

Kickul, J., & Fayolle, A. (2007). Cornerstones of change: revisiting and challenging new perspectives on research in entrepreneurship education. *Handbook of research in entrepreneurship education, 1*, 1-17.

Kolb DA (1984) *Experiential learning: Experience as the source of learning and development*. United States: Prentice-Hall Englewood Cliffs.

Kram, K. E. (1983). Phases of the mentor relationship. *Academy of management journal, 26*(4), 608-625.

Kram, K. E. (1985). Mentoring at work: Developmental relationships in organizational life. *Administrative Science Quarterly*.

Kram, K. E., & Isabella, L. A. (1985). Mentoring alternatives: The role of peer relationships in career development. *Academy of management journal, 28*(1), 110-132.

Kyrö, P., & Tapani, A. (2007). Learning risk-taking competences. In A. Fayolle (Ed.), *Handbook of research in entrepreneurship education*. Cheltenham: Edward Elgar.

Lackéus, M., & Williams Middleton, K. (2015). Venture Creation Programs: bridging entrepreneurship education and technology transfer. *Education+ training, 57*(1).

Lefebvre, M. R., & Redien-Collot, R. (2013). How to do things with words: The discursive dimension of experiential learning in entrepreneurial mentoring dyads. *Journal of Small Business Management, 51(3)*, 370-393.

Long, J. (1997). The dark side of mentoring. *The Australian Educational Researcher, 24*(2), 115-133.

Marsick, V. J., & Watkins, K. E. (2001). Informal and incidental learning. *New directions for adult and continuing education, 2001*(89), 25-34.

Miettinen, A. (2006). Mentoring for entrepreneurs as an education intervention. In A. Fayolle & H. Klandt (Eds.), *International Entrepreneurship Education: Issues and Newness* (pp. 112). Cheltenham: Edward Elgar.

Mills, J., Barakat, S., & Vyakarnam, S. (2013). Impact of mentoring and peer-learning within a global entrepreneurship programme. *PAPER ID TITLE AUTHORS PAGE NUMBER*, 289.

Mitchell, R. K., & Chesteen, S. A. (1995). Enhancing entrepreneurial expertise: Experiential pedagogy and the new venture expert script. *Simulation & Gaming, 26*(3), 288-306.

Mwasalwiba, E. S. (2010). Entrepreneurship education: a review of its objectives, teaching methods, and impact indicators. *Education + Training, 52*(1), 20-47.

Neck, H. M., & Greene, P. G. (2011). Entrepreneurship education: known worlds and new frontiers. *Journal of Small Business Management, 49*(1), 55-70.

Patton, M. Q. (1999). Enhancing the quality and credibility of qualitative analysis. *Health services research, 34*(5 Pt 2), 1189.

Pittaway, L., & Cope, J. (2007). Simulating entrepreneurial learning integrating experiential and collaborative approaches to learning. *Management learning, 38*(2), 211-233.

Politis, D. (2005). The Process of Entrepreneurial Learning: A Conceptual Framework. *Entrepreneurship Theory and Practice, 29*(4), 399-424.

Politis, D., & Gabrielsson, J. (2009). Entrepreneurs' attitudes towards failure: An experiential learning approach. *International Journal of Entrepreneurial Behaviour & Research, 15*(4), 364-383.

Rae, D. (2009). Connecting entrepreneurial and action learning in student-initiated new business ventures: the case of SPEED. *Action Learning: Research and Practice, 6*(3), 289-303.

Ragins, B. R., & Cotton, J. L. (1999). Mentor functions and outcomes: a comparison of men and women in formal and informal mentoring relationships. *Journal of applied psychology, 84*(4), 529.

Ragins, B. R., Cotton, J. L., & Miller, J. S. (2000). Marginal mentoring: The effects of type of mentor, quality of relationship, and program design on work and career attitudes. *Academy of Management Journal, 43(6)*, 1177-1194.

Ragins, B. R., & Kram, K. E. (2007). *The handbook of mentoring at work: Theory, research, and practice*: Sage Publications.

Rasmussen, E. A., & Sørheim, R. (2006). Action-based entrepreneurship education. *Technovation, 26*(2), 185-194.

Roberts, J. W. (2012). *Beyond Learning By Doing: Theoretical Currents in Experiential Education*. New York: Routledge.

Rodgers, C. (2002). Defining reflection: Another look at John Dewey and reflective thinking. *The Teachers College Record, 104*(4), 842-866.

Ronstadt, R. (1985). The educated entrepreneurs: A new era of entrepreneurial education is beginning. *American Journal of Small Business, 6*, 7-23.

Schunk, D. H. (2012). *Learning theories: An Educational Perspective* (6 ed.). New Jersey: Printice Hall Inc.

Sexton, D. L., & Bowman, N. B. (1984). Entrepreneurship education: suggestions for increasing effectiveness. *Journal of Small Business Management, 22*(2), 18-25.

Shane, S. (2003). *A General Theory of Entrepreneurship. The Individual-Opportunity Nexus*. Northampton, MA: Edward Elgar.

Solomon, G. T., Weaver, K. M., & Fernald, L. W. (1994). A historical examination of small business management and entrepreneurship pedagogy. *Simulation & Gaming, 25*(3), 338-352.

St-Jean, E. (2012). Mentoring as professional development for novice entrepreneurs: maximizing the learning1. *International Journal of Training and Development, 16*(3), 200-216.

St-Jean, E., & Audet, J. (2012). The role of mentoring in the learning development of the novice entrepreneur. *International Entrepreneurship and Management Journal, 8*(1), 119-140.

Sullivan, R. (2000). Entrepreneurial learning and mentoring. *International Journal of Entrepreneurial Behaviour & Research, 6*(3), 160-175.

Taylor, D. W., & Thorpe, R. (2004). Entrepreneurial learning: a process of co-participation. *Journal of small business and enterprise development, 11*(2), 203-211.

Vermunt, J. D. (1996). Metacognitive, cognitive and affective aspects of learning styles and strategies: A phenomenographic analysis. *Higher education, 31*(1), 25-50.

Vermunt, J. D., & Verloop, N. (1999). Congruence and friction between learning and teaching. *Learning and instruction, 9*(3), 257-280.

Von Graevenitz, G., Harhoff, D., & Weber, R. (2010). The effects of entrepreneurship education. *Journal of Economic Behavior & Organization, 76*(1), 90-112.

Wanberg, C. R., Welsh, E. T., & Hezlett, S. A. (2003). Mentoring research: A review and dynamic process model. *Research in Personnel and Human Research Management, 22*, 39-124.

Wanberg, C. R., Kammeyer-Mueller, J., & Marchese, M. (2006). Mentor and protégé predictors and outcomes of mentoring in a formal mentoring program. *Journal of Vocational Behavior, 69*, 410-423.

Weinrauch, J. D. (1984). Educating the entrepreneur: understanding adult learning behavior. *Journal of Small Business Management, 22*(2), 32-37.

Zhao, H., Seibert, S. E., & Hills, G. E. (2005). The mediating role of self-efficacy in the development of entrepreneurial intentions. *Journal of applied psychology, 90*(6), 1265.

Zimmerman, B. J. (1990). Self-regulated learning and academic achievement: An overview. *Educational psychologist, 25*(1), 3-17.

Zimmerman, D. H., & Wieder, D. L. (1976). The diary. *American Sociologist*.

*Table one: Description of the cases and the mentors*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name (age) Continent** | **Adam (30)**  **South America** | **Ben (24)**  **Europe** | **Carl (24)**  **Europe** | **Donna (25)**  **Europe** | **Erin (28)**  **Europe** |
| **Educational Background** | Business | Marketing | Finance & entrepreneurship | Business & entrepreneurship | International politics |
| **Working Experience** | Sales and Marketing | Marketing in SMEs | Own start-ups | Banking | Social charity work |
| **Previous entrepreneurial experience** | No | Yes | Yes | No | No |
| **Business Idea** | Import condensed milk | Buy & resell second hand Toys | Online store for male accessories | Insurance solution for pets | Permaculture farms in Africa |
| **Business Process** | Established company and customers during program | Developed the business and increased customer stock | Developed the business and expanded assortment | Developed an insurance solution during the program | Developed the business idea and business plan |
| **Mentor / Background** | Alice  Food industry | Bridget  Start-up consultant | Clark  Marketing | Denise  Insurance industry | Eric  Serial entrepreneur |
| **Frequency of meetings** | Monthly meetings in person | Monthly meetings in person | Monthly meetings through Skype | Monthly meetings in person | Occasional meetings |
| **Mentor Process** | Aided in industry understanding | Helped in project and time management | Aided in decisions regarding the business | Developed into a business partner | Aided in the general business issues |
| **Expectations on mentor** | Gain advices around industry and networking | Aid in project management and time management | Use as a sounding board in discussion around business | Gain knowledge of insurance industry | Gain specific help around the business idea |
| **Relation still existing** | Yes (Chairman of the board) | Yes (Occasional discussions) | Yes (Monthly video calls) | No existing relation | No existing relation |

*Model one: Entrepreneurial mentoring dyads in experiential entrepreneurship education – initial conditions for enhancing learning among entrepreneurial mentee’s*