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Entrepreneurial Learning in a University Incubator

A single case study with VentureLab

by

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Abstract

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Research Question: How can incubators contribute to entrepreneurial learning in an academic context?

Methodology: This research has been conducted through a single case study by applying a qualitative research approach on how a university context shapes the way entrepreneurs learn in an incubator. The data was collected through semi-structured interviews and analyzed according to Gioia, Corley and Hamilton (2012).

Theoretical Perspective: This study reviewed literature regarding Entrepreneurial Learning through an Experiential and Social Learning Theory lens. Moreover, Incubator theory was included in order to understand the relationship between the factors facilitating Entrepreneurial Learning.

Conclusion: Research must take the academic context into account when investigating the phenomenon of entrepreneurial learning inside university incubators. Therefore, this study extends incubator research by investigating its support service effect on entrepreneurial learning in the academic context. Internal network and coaching have been identified to contribute most to entrepreneurial learning of incubatees and can be effectively enhanced by contextual factors: *Accessibility, Flexibility, Inclusiveness* and *Sense of Community*. Considering the contextual factors allows incubator managers to better understand entrepreneurs' learning needs and to design support services accordingly.

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1 Introduction

1.1 Background

Entrepreneurial new entrants have become an important economic phenomenon due to their ability to pioneer radical innovation (Hill & Rothaermel, 2003; Acemoglu & Cao, 2010), their capacity to employ new personnel (Peters, Rice & Sundararajan, 2004) and hence drive economic growth. Therefore, higher education institutions are expected to increasingly teach entrepreneurship (Stevenson & Lundström, 2002) and turn out an increasing number of students with entrepreneurial competencies and the ambition to become an entrepreneur (OECD, 2009). Thus, entrepreneurial learning (EL) gained importance and educational institutions play a significant role in that. Within the past 30 years the emergence of entrepreneurship within universities has increased tremendously (Greene & Rice, 2008; Hills, 1988; Kuratko, 2005). Nevertheless, there is a lack of consensus in the higher education environment about what constitutes a good practice model for EL (Holmgren & From 2005).

In addition to that, the entrepreneurial process is not an easy one (Baron, 2006). Contrarily, entrepreneurs are often confronted with numerous difficulties ranging from higher risk of failure (Brüderl & Schüssler, 1990; Aldrich & Fiol, 1994), lack of legitimacy (Zimmerman & Zeitz, 2002), and limited entrepreneurial competencies (Carter, Gartner, Shaver & Gatewood, 2003). In search for alleviating factors, researchers outline that experience, knowledge and perceived self-efficacy affect the skills, preferences and attitudes of entrepreneurs for opportunity recognition (Baron, 2006; Politis, 2005; Shane, 2000; Gabrielsson & Politis, 2012) as well as for the likely effectiveness of the process (Gatewood, Shaver & Gartner, 1995). Perceived likeliness of success and feasibility for business creation can be influenced by education, feedback and training of knowledge, skills and behaviors that improve effectiveness in the required tasks for starting up a venture (Krüger, Reilly & Carsrud, 2000; Carter et al. 2003). Hence, entrepreneurial competencies can be learned. EL refers to the capability of how to recognize and act upon opportunities as well as the ability to cope with liabilities of newness are developed (Politis, 2005; Rae & Carswell, 2001). Minniti and Bygrave (2001) argue that “entrepreneurship is a process of learning, and a theory of entrepreneurship requires a theory of learning” (p. 7). However, the convincing argument exists that the entrepreneurship discipline

does not currently possess sufficient conceptual frameworks to explain how entrepreneurs learn (Cope & Watts, 2000). Consequently, many aspects of EL remain poorly understood (Deakins, 1996; Rae & Carswell, 2001).

Literature acknowledges that different support systems for facilitating EL do exist; amongst them, the incubator (Ferguson & Olofsson, 2004; Hansen, Chesbrough, Nohria & Sull, 2000; Hite & Hesterley, 2001; Hughes, Hughes & Morgan, 2007; Lee & Osteryoung, 2004; McAdam & Marlow, 2007; Rice, 2002). Incubators have progressed from supplying primarily physical resources (Pauwels, Clarysse, Wright & van Hove, 2014) to value-adding services such as leadership and targeted use of social capital in the form of networks and relationships (Wiggins & Gibson, 2003). Hence, incubators can be understood as a knowledge-based platform focusing on social capital through access to competency and capital networks (Branstad & Saetre, 2016) helping entrepreneurs to establish and develop their idea from inception to commercialization and the start-up of a new enterprise (CSES, 2002).

1.2 Problem Discussion

Current literature explains the practices of incubators by outlining the applied strategies that support the new venture creation process (Bøllingtoft & Ulhøi, 2005; Bergek & Norrman, 2008). Support elements such as access to network, coaching, and workshops had been studied and compared across incubators in terms of their effectiveness in helping early ventures to survive (Allen & McClusky, 1990; Hackett & Dilts, 2004; Bergek & Norrman, 2008; Grandi & Grimaldi, 2005). An incubator's effectiveness in facilitating EL through these support elements had been studied in a commercial context: on the one hand, in general business incubators (Famiola & Hartati, 2018; Fang, Tsai & Lin, 2011; Hughes, Hughes & Morgan, 2007; Scillitoe & Chakrabarti, 2010; Sudana, Apriyan, Suprptoно & Kamis, 2019; Zheng, Chen & Dong, 2017), on the other hand, in university-technology incubators, meaning university incubators (UI) aiming to develop technology-based firms for commercialization means of science (Patton & Marlow, 2011; Mian, 1996; Stal, Andreassi & Fujino, 2016). Hence, EL in an incubator had solely been studied in a commercial context.

Incubators, however, differ depending on the institutional and social context they are situated in (Kuratko & LaFollette, 1986; Smilor, 1987; Pauwels et al. 2014). On the one hand,

commercially-oriented incubators mainly focus on the provision of access to financial resources or necessary technological knowledge (Grimaldi & Grandi, 2005). They stimulate innovation while satisfying market demands (Smilor & Gill, 1986; Mian 1997). On the other hand, UIs are found to comprise synergies of industry and academia for entrepreneurial development (Hisrich & Smilor, 1988) and educate entrepreneurs along their journey of starting a venture (Gielen, Cleyn & Coppens, 2013; Stal, Andreassi & Fujino, 2016; O'Connor, Burnett & Hancock, 2009). Additionally, academia as a creator of favorable conditions for learning gained further importance in enhancing entrepreneurship within universities (Greene & Rice, 2008; Hills, 1988; Kuratko, 2005). The academic context plays a crucial role in research on entrepreneurship education describing universities as simulators of EL environments (Pittaway & Cope, 2007a) and means to train entrepreneurship (Johannisson, Landström & Rosenberg, 1998). Thus, an incubator inside this context is assumed to provide a favourable environment for entrepreneurs and their learning.

The context of the incubator influences the way it provides support to its incubatees (Phan, Siegel, & Wright, 2005) while the incubator support determines the environment in which the entrepreneurs act (Allen & Kahman, 1985; Peters, Rice, & Sundararajan, 2004). The way entrepreneurs learn is influenced by the environment they operate in (Pittaway & Cope, 2007a), hence EL inside an incubator is subject to influences from the incubator context and the incubator offering. As “learning takes place in context” (Hines & Thorpe, 1995, p.680) these conditions are relevant to consider when studying EL. Especially the social context was found to determine an individual's learning process (Hamilton, 2004), thus contextual factors are crucial to be considered in the research on EL.

Concluding, existing studies put the main focus on commercially-oriented incubators when studying EL. However, academia provides a context of increasing interest for studying the phenomenon, and therefore presents an opportunity for contributing to current literature as presented in Figure 1. Thus, the contribution of incubators' support services to EL in a university context is subject to this study.

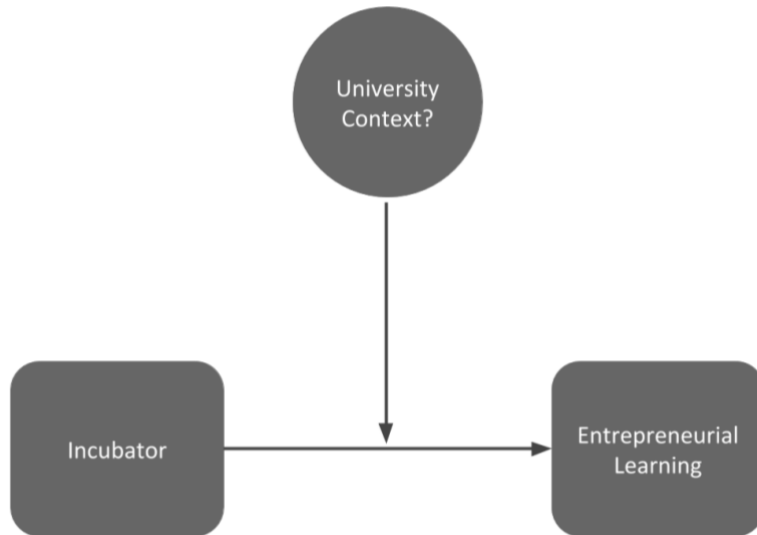


Figure 1: Conceptualized Opportunity for Contribution

1.2.1 Research Question

In order to explore, understand, and explain the above presented gap in current incubator literature, the following research question will guide this study:

How can incubators contribute to entrepreneurial learning in an academic context?

Since EL is an experiential process (Cope, 2005; Deakins & Freel; Minniti & Bygrave, 2001; Politis, 2005; Sarasvathy, 2001) it is an individual phenomenon to every person. Therefore, the authors adopted the rationale of studying EL from the individual's perspective gaining authentic insights into the learning experience.

1.3 Research Purpose

In pursuance of answering the research question above, this study will contribute to incubator literature. Research has investigated the effectiveness of incubators helping early ventures to survive; however, only little is known about how EL is facilitated within these programs and particularly how the academic context shapes this process. Our research will be the first one examining UIs' support systems through the EL lens. This study aims to collect and analyse the perspective of incubatees on their EL in an incubator operating in an academic context. By

giving particular relevance to the incubator's environment, this study complements extant literature with a more nuanced model of contextual influencing factors.

The purpose of this study is to explore how entrepreneurs learn by participating in a UI. In particular, this research will focus on network, coaching, and workshops to discover what role these elements play in facilitating EL. Moreover, by answering the research question, we will contribute to the understanding of the process of establishing new firms and determine the crucial elements from the entrepreneur's perspective. Understanding how UIs help entrepreneurs learn is critical as literature claims that incubators are efficient and beneficial for new venture's success, which is important due to their capacity to drive economic growth and pioneer radical innovation (Acemoglu & Cao, 2010; Cohen, Bingham, Hallen, 2017; Bergek & Norrman, 2008; Hackett & Dilts, 2004; Hill & Rothaermel, 2003; Peters, Rice & Sundararajan, 2004).

Lastly, our findings will have practical implications for UI managers by providing a better understanding of the influence of contextual factors on EL of incubatees. This is of particular value to incubators in order to better understand entrepreneurs' learning needs and to design the support service offering accordingly. Thus, this study improves incubators' ability to identify and cater to these needs. By deepening incubators' understanding on how EL takes place throughout the new venture creation process, incubators can better prepare the incubatees for entrepreneurial challenges and hence, contribute to their EL.

1.4 Case Company

The research design describes a single case study on the EL of incubatees at Venture Lab, a UI. Venture Lab was chosen due to its aim to empower entrepreneurs on their venture creation process, hence, to enhance EL. Thus, the choice of the case company allows us to address the identified gaps in the new venture incubator field.

Venture Lab is a "supportive and creative office with a community for nurturing committed students to give their ideas and projects a chance" (Venture Lab, 2018, n.p.). There are two options currently offered:

For those students that have an idea or project in an early phase, VentureLab offers the three-month Ignite Start-up Program. During Ignite, individuals set their personal goals together with business developers and are provided with training in e.g. sales and pitching. Moreover, incubatees have access to the VentureLab office space, various IT services, and expertise and facilities of Danish universities through the Nordic Entrepreneurship Hubs. When applying for the Ignite Program, following criteria are considered: at least one applicant of Lund University, duration of project, determination, and team dynamic. Application opens twice a year (January and September). After the applications are closed, applicants will be potentially invited to an interview where the applicant has the opportunity to introduce him/her and his/her project better.

For those students with a company (or developed project), there is the possibility to only make use of the office space and join the entrepreneurial community where students come together to develop their companies or projects. For this option applications open three times a year. It is required that applicants are either Lund University students or up to one year graduates. Students must attend the first three meetings with an assigned business developer and be interested in engaging with the VentureLab start-up community. Upon acceptance, incubatees have the possibility for an initial contract of three months, with extension up to one year.

To date, around 30 ventures or projects are incubated at VentureLab each of which is at a different stage in the venture creation process.

1.5 Outline of the Thesis

This thesis is structured into six chapters, covering the following parts. First, the research topic and the case company have been presented whereupon the second chapter provides a detailed overview of relevant theories and concepts from existing literature. Chapter 3 outlines the methodology that has been applied for data collection and analysis in this research. It then goes on and presents the main research findings which are analyzed and discussed subsequently. Finally, Chapter 6 concludes the research based on the analysis and outlines managerial implications, research limitations and suggestions for future research.

2 Literature Review

The following chapter will present relevant literature within the fields of this study. Subsequently to the introduction of EL and its outcome, it will explain multiple learning perspectives through which EL can be investigated, namely experiential learning, learning through critical events, and learning through social experiences. Moreover, an introduction to the concept and different types of incubators will be outlined, explaining how they can facilitate EL. Finally, it will describe the role of the context of an incubator and how it can influence EL.

2.1 Entrepreneurial Learning and Outcomes

EL can be described as the “continuous process that facilitates the development of necessary knowledge for being effective in starting up and managing new ventures” (Politis, 2005, p.401). However, the conceptual ambiguity of learning is confronted with the difficulty to describe or define what exactly the concept involves. One attempt to accomplish this is to elaborate the outcomes related to EL (Politis, 2005). When literature applies learning to the field of entrepreneurship, it is concerned with learning how to recognize and act on entrepreneurial opportunities (Baron, 2000; Corbett, 2002; Rae & Carswell, 2001; Shane & Venkataraman, 2000) and learning how to circumvent common obstacles when managing new ventures; also referred to coping with liabilities of newness (Aldrich, 1999; Starr & Bygrave, 1992; Stinchcombe, 1965). While it can be argued that entrepreneurs engage in both activities simultaneously (Shane, 2003), liabilities of newness cannot take place without prior opportunity recognition (Politis, 2005). Thus, it can be distinguished between the two learning outcomes related to EL. Experience plays an important role in the development process of entrepreneurial knowledge (Cope, 2005; Politis, 2005) and therefore, it can be differentiated between the experience of an entrepreneur and the knowledge acquired as a result of that experience (Harrison & Leitch, 2005; Politis, 2005; Reuber, Dyke & Fischer, 1993). Hence, learning can be distinguished as a process and knowledge as the outcome of the process. Consequently, we will outline what the outcome of EL is.

Opportunity Recognition

The increased effectiveness in opportunity recognition implies the entrepreneur's ability to pick up more relevant information necessary to identify entrepreneurial opportunities and having developed cognitive capabilities needed to value it (Shane & Venkataraman, 2000). Hence, it is the ability to identify value of new information, learn, and apply it to commercial ends (Cohen & Levinthal, 1990). Research identifies important factors that play a role when identifying opportunities for new venture creation: actively engaging in the search for opportunities; alertness to opportunities; and prior knowledge of market, industry, and customers (Baron, 2006). With respect to an active search for opportunities, it is highlighted that access to appropriate information plays a key role in order to recognize entrepreneurial opportunities (Shane, 2003). Moreover, entrepreneurs are less likely to identify opportunities from public information; rather, they seek such information in unique sources, via e.g. personal contacts (Hills & Shrader, 1998). Contrary, alertness indicates that opportunities can be identified by individuals that are not actively seeking for them but who are generally alert and thus, are more receptive to opportunities (Ardichvili, Cardozo & Ray, 2003). Alertness rests on personal characteristics such as optimism as the belief that events will result in favourable outcomes positively correlates to opportunity recognition (Krueger & Brazeal, 1994). Moreover, it rests on the perception of risk, as individuals perceiving high levels of risk may be reluctant to view ideas as potentially fruitful opportunities (Stewart & Roth, 2001). Finally, prior knowledge can be an advantage for entrepreneurs regarding recognizing opportunities. Particularly, prior knowledge of customer needs enhances entrepreneurs' ability to provide solutions to those needs (Shane, 2000).

Coping with Liabilities of Newness

The increased effectiveness to cope with liabilities of newness is assumed to be important for an entrepreneur to be successful (Aldrich, 1999; Stinchcombe, 1965). The high failure rate of new ventures may be due to lack of legitimacy, shortfall in cash flow, and inefficient marketing (Politis, 2005; Storey, 1994; Sullivan, Warren & Westbrook, 1999). Potential customers miss the basis for trusting the newcomers due to insufficient track record and short operating histories, hence they are rather hesitant in placing orders (Politis, 2005). The shortfall in cash flow impacts the new firm's ability to respond to external problems. Thus, newly founded firms must first earn recognition for being a

legitimate player in the market. An increased effectiveness in coping with traditional obstacles and uncertainties related to enterprising is manifested through various ways such as finding financial start-up capital, access and power to exploit social and business networks, adaptation to changes, and legitimacy through reputation, which in turn can help them to secure financial resources and develop a market (Politis, 2005; Starr & Bygrave, 1992). Moreover, to meet contextual constraints faced by new ventures, diverse backgrounds may stimulate creativity by associating more linkages which provide a basis for learning in uncertain situations (Cohen & Levinthal, 1990). Thus, it can be assumed that e.g. a diverse environment can stimulate the entrepreneur to learn new knowledge from other ventures, which can be applied in their own context (MacMillan, 1986; McGrath, 1999). However, new venture creation is an action that requires repeated attempts to exercise the process of starting up and thus, the corresponding effort and time involved in this process suggest that entrepreneurial activities are guided by intention and motivation (Carter et al. 2003). The perception of the feasibility of business creation has a significant impact on entrepreneurs' choice to engage in enterprising activities, which in turn impacts their intention and motivation to start up (Farmer, Yao & Kung-Mcintyre, 2011; Krueger, Reilly & Carsrud, 2000; Rae & Carswell, 2001). However, the perception of feasibility can be modified through education, training, and feedback (Gatewood, 1993). That means, individuals can be taught knowledge, skills, and behaviours to improve effectiveness of the tasks necessary for business creation (Carter et al. 2003). These competencies entail e.g. motivation, perseverance, self-awareness, mobilizing resources, and financial as well as economic literacy (Jones & Penaluna, 2013; Morris, Kuratko & Cornwall, 2013) which besides perceived feasibility can also affect the ability to cope with liabilities of newness.

Having defined the concept of EL and its outcomes, the question remains: how do entrepreneurs learn? A large body of EL literature exists providing insights into how entrepreneurs learn from their own experience and the experience of others (Minnity & Bygrave, 2001). However, EL can be regarded from various learning perspectives. Cope (2003) proposes three interconnected elements of a learning perspective of entrepreneurship. Firstly, he identifies entrepreneurial preparedness as a learning process and recognizes that EL is an individually situated learning task due to the complexity of each individual's learning history. Secondly, he proposes that critical and discontinuous events can trigger EL. Thirdly, he introduces affective and social characteristics of EL. Politis (2005) reviews and synthesizes available research into a

conceptual framework that explains EL as an experiential learning process. This reasoning is in line with Kolb (1984) who emphasizes two dimensions of experiential learning: *acquisition* and *transformation*. He describes it as a process “whereby knowledge is created through the transformation of experience” (Kolb, 1984, p. 41). Therewith, learning requires a grasp of experience and subsequently transformation of that experience. On that account, learning is a continuously created and recreated transformation process of experiences and not an independently acquired entity (Holmqvist, 2000). A large body of literature integrates experiential learning theory into the field of entrepreneurship (Cope & Watts, 2000; Deakins & Freel, 1998; Johannisson, Landström & Rosenberg, 1998; Minniti & Bygrave, 2000) which incorporates social learning and learning from critical experiences. Hence, to advance the conceptualization of EL, the following will articulate the learning mechanisms underpinning EL - experiential learning through critical events and social experience.

2.2 Entrepreneurial Learning as Experiential Learning

Research outlines that learning in an entrepreneurial context takes place in an experiential nature (Cope, 2005; Deakins & Freel; Minniti & Bygrave, 2001; Politis, 2005; Sarasvathy, 2001). In the experiential process personal and new experience of an entrepreneur are transformed into knowledge which then can be used to guide the choice of new experience (Politis, 2005). Hence, entrepreneurial knowledge is experientially acquired. According to Kolb’s (1984) four-stage learning cycle (experiencing, reflecting, thinking and acting), concrete experience produce observations and reflections which are assimilated and refined into abstract concepts from which action implications can be drawn. These guide the creation of new experiences. Thus, experiential learning in entrepreneurship attempts to focus on an activity-driven approach (Kolb, 1984). Entrepreneurship students need to be put in a situation where they interact with elements of the entrepreneurial context (Morris & Liguori, 2016). Therefore, experiential techniques are critical because they involve individuals creating reality as they pursue an uncontrollable path with ambiguity and uncertainty as well as the need for creative action and performance in various roles.

In line with Kolb’s (1984) *acquisition* and *transformation* dimension - corresponding to *entrepreneurial experience*, and *entrepreneurial knowledge*, Reuber and Fischer (1994)

distinguish the two concepts by considering entrepreneurs' experiences as an observation or participation of enterprising activities, while the *practical wisdom* resulting from that encountering can be regarded as the knowledge derived from that experience. The transformation process of experience can take two distinctive courses: exploitation and exploration (Politis, 2005). Exploitation relates to choosing actions that replicate the ones already taken, thus exploiting preexisting knowledge; exploration refers to choosing new actions that are distinct from the ones already taken (March, 1991). In the latter, entrepreneurs learn from experiences by exploring new possibilities including variation, experimentation, discovery, and innovation (Cohen & Levinthal, 1990). Both approaches to transform experience into knowledge are essential to sustain learning and should be kept at balance (March, 1991).

One key proposition of experiential learning is that the most effective form of learning is *learning by doing* (Cope & Watts, 2000; Kolb, 1984; Smilor, 1997), including trial and error and discovery (Deakins & Freel, 1998; Young & Sexton, 1997). Multiple authors recognize that entrepreneurs are action-oriented and much of their learning is experientially-based (Rae & Carswell, 2001). Minniti and Bygrave (2001) state entrepreneurial knowledge can next to *learning by doing* be acquired through direct observation. Dalley and Hamilton (2000) support this by arguing "It seems accepted that there are no shortcuts in the learning process, that surviving various 'trials by fire' is almost a rite of passage, and that there can never be any substitute for experience" (Dalley & Hamilton, 2000, p.55). This so-called *affective learning* mode refers to "learning by encounter, by direct experience. It finds expression through 'being there', through immersion in an experience" (Postle, 1993, p.33). Gibb (1997) emphasizes in that context that the principal contextual learning mode in an entrepreneurial setting is that of "learning from peers, learning by doing, learning from feedback, from customers and suppliers, learning by copying, learning by experiment, learning by problem solving and opportunity taking, and learning from making mistakes." (p.19). Necessary information about exploiting entrepreneurial opportunities and in coping with liabilities of newness can, hence, only be learned by doing (Cope & Watts, 2000; Shane, 2003). Ronstadt (1988) states that the mere act of starting a venture enables entrepreneurs to e.g. see other venture opportunities they could neither see nor take advantage of until they had started their initial venture. Thus, gathering

right information and making effective decisions about potentially profitable opportunities can only be understood by undertaking those activities.

Learning from experience and adjusting behavior accordingly is key to EL. Entrepreneurs learn how to react to incidents, to changes and learn from problems encountered (Deakins & Freel, 1998). Therewith, entrepreneurs take on an adaptive role as they adjust to their environment, to their learning experience and, consequently, change behavior (Levinthal, 1996). Moreover, as learning can be regarded as path dependent, entrepreneurs must continuously find ways to improve existing routines due to fast changing external environments (Deakins & Freel, 1998). For this adaptation process the entrepreneur can apply two strategies: imitative and trial and error behavior (Johannisson, Landstrom & Rosenberg, 1998). The former involves observation of successful firms and the adoption of those practices which are assumed to be key of the observed success. The latter entails conscious trial followed by success or failure based on which appropriate action can be selected. Therefore, entrepreneurs need to continuously adapt to their environment which they can accomplish through observation, participation and exploration of entrepreneurial activities.

2.2.1 Social Experiences

EL involves a social dynamic. Social learning is an important mechanism for individuals to prepare themselves for entrepreneurial endeavors and can be seen as a contextual phenomenon that occurs in tandem with experiential learning influenced by individuals' social interactions (Cope, 2005; Gibb, 1997; Pittaway & Cope, 2007b; Rae & Carswell, 2001). Literature highlights that learning can be seen as a social construct and cannot be separated from practice (Harkema & Schout, 2008; Müller, 2011; Sanchez-Escobedo, Díaz-Casero, Hernández-Mogollón & Postigo-Jiménez, 2011). Entrepreneurs have ideas to test as well as some knowledge and competence to run the business, however, they do need complementary resources to produce and deliver their goods and services (Teece, 1987). Social learning theory posits that learning occurs through close contact with other people, observation, and imitation of role model behaviors (Bandura, 1977). Subsequently, social learning theories have become a lens through which to interpret EL through social capital and co-participation. Research argues

that entrepreneurs learn from other entrepreneurs, seeking advice from those whom they perceive to have superior entrepreneurial capabilities (Rae & Carswell, 2001). Hence, building and maintaining networks in EL activities becomes essential. As entrepreneurs' networks are assumed to be rather small in early venture stages, they will often seek to expand their networks to gather useful connections which may enhance EL through development of social capital (Greve & Salaff, 2003). The authors further state that networks can be understood as means towards sources of knowledge, support, sense of community, and potential finances associated with the start-up of a new venture. Social capital is the result of dynamic interactions; it becomes capital once used by actors in specific situations like e.g. mobilizing social relations when needed (Bøllingtoft & Ulhøi, 2005; Coleman, 1990). Social capital research argues that individuals working together are more effective and efficient when they know, trust, and identify with one another to enable voluntary exchange (Bolino, Turnley & Bloodgood, 2002; Bøllingtoft & Ulhøi, 2005; Sullivan, 2000). Hence, trust plays a critical role in social learning.

Entrepreneurial actors need to get in contact with other actors to receive complementary knowledge and resources as social ties are proven to result in improved performance (Johannisson, 1988). They partner up, formally or informally, to co-participate a shared learning experience (Pittaway & Cope, 2007b). These relationships result in contributing to learning, as social interaction and discussion after e.g. a failure positively correlate to helping an entrepreneur reflect upon and recover from it (Cope, 2011). Multiple researchers have emphasized the importance of networking and how it affects the quality of experiential learning of the entrepreneur (Johannisson, 1986). Creating a communal work context plays a central role in simulating the social dimension of EL (Pittaway & Cope, 2007a). Entrepreneurs learn in a context of personal and business relationships (Hines & Thorpe, 1995). This network can consist of suppliers, customers, staff as well as family and peers (Gibb, 1997). The author goes on and highlights that *learning partnerships* are critical for entrepreneurs to learn from and with key network agents (Gibb, 1997). Consequently, the dynamic learning perspective of entrepreneurship places individuals involved in the EL process at the heart of the phenomenon (Cope, 2005).

2.2.2 Critical Experiences

Research moreover proposes that learning occurs from moments in which an entrepreneur is situated (Cope, 2005). Learning is a lived experience involving a series of independent events and is triggered through critical events during the entrepreneurial process (Deakins & Freel, 1998; Cope, 2001, 2003; Rae & Carswell, 2001). Hence, *critical learning events* have become an emerging theme in EL literature (Cope & Watts, 2000; Deakins & Freel, 1998; Sullivan, 2000; Taylor & Thorp, 2004). Both positive as well as negative experiences are argued to impact the EL process (Minniti & Bygrave, 2001) and particularly, confronting and overcoming challenges and problems can enhance learning (Daudelin, 1996). Unusual circumstances force entrepreneurs to question their existing assumptions and require increased attention and experimentation (Schön, 1983). The exploration of these issues enhances EL (Cope, 2005) as opposed to the gradual accumulation of habitual learning (Mezirow, 1991). Hence, significant opportunities and problems encountered during the entrepreneurial process are assumed to create *higher-level learning* outcomes (Cope, 2005). Fiol and Lyles (1985) reinforce that a crisis is a prerequisite for *higher-level learning*. Although crises may have a negative impact in business and personal terms, they often result in positive learnings outcomes (Cope, 2005). Moreover, *critical learning events* also have a social characteristic in the context with EL as those incidents often occur from the experience dealing with customers or suppliers and other stakeholders (Boussouara & Deakins, 1999).

2.3 Incubator

In many parts of the world incubators have become an omnipresent phenomenon and are seen as a tool for stimulating economic development, innovativeness, and the development of technology-based firms (Bergek & Norrman, 2008). However, the development of incubation activities led also to a definitional and conceptual ambiguity (Lindelof & Lofsten, 2002; Hackett & Dilts, 2004; Phan et al. 2005). In a broader sense, the term is often used to describe organizations which support entrepreneurs to develop their ideas into new ventures by commercialization (CSES, 2002).

For the purpose of this research this paper will reserve the incubator concept as an organization that provides joint location, services, business support, and networks to early stage ventures

(Bergek & Norrman, 2008) facilitating both the transformation of a business proposal into a viable business (Hackett & Dilts, 2004; Lyons, 1990; Smilor, 1987; Campbell, 1989) as well as the acquisition, exploration, and exploitation of the corresponding knowledge (Ferguson & Olofsson, 2004; Hansen, Chesbrough, Nohria & Sull, 2000; Hite & Hesterly, 2001; Hughes, Hughes & Morgan, 2007; Lee & Osteryoung, 2004; McAdam & Marlow, 2007; Rice, 2002).

Hackett and Dilts (2004) argue that the incubator should be seen as a network of individuals and organizations (e.g. incubator manager and staff, incubatee companies, local universities and its community members, industry contacts, lawyers, accountants, consultants, marketing specialists). In line with this, Bøllingtoft and Ulhøi (2005) refer to the incubator as an *Entrepreneurial Agency* including the possibility of more than one individual being involved in the development of a new venture as well as the potential of synergies and complementary skills between individual entrepreneurs of an entrepreneurial team. Further the authors state that the overall aim is to expand entrepreneurial potential by providing entrepreneurial actors with services and support that complement their existing skill-set and resources; amongst these resources it can be distinguished between tangible and intangible resources. Tangible resources count the physical environment, office and communication and business services, facilities, and financing, while intangible resources include the peer environment, legitimacy, social inputs, and psychological support (Bøllingtoft & Ulhøi, 2005). The support provided by the incubator can be based on strong intervention or a laissez-faire approach depending on the degree of intervention into the incubation process by the incubator (Bergek & Norman, 2008). Following, previous research on incubators as EL facilitators is presented.

2.3.1 Entrepreneurial Learning in Incubators

Prior studies recognized the important role of an incubator as the creator of a suitable environment for expanding the entrepreneur's knowledge and skills into areas which are relevant for the venture creation (Ferguson & Olofsson, 2004; Hansen et al. 2000; Hite & Hesterley, 2001; Hughes, Hughes & Morgan, 2007; Lee & Osteryoung, 2004; McAdam & Marlow, 2007; Rice, 2002). Among some of these, the acquisition of knowledge through exploitation of for example networks is broadly presented (Hansen et al. 2000; Hite & Hesterley, 2001; Lee & Osteryoung, 2004). However, Hughes, Hughes and Morgan (2007) cast doubt on incubators mainly enhancing an exploitative learning mode which for the most part

roots in networks and their efficiency in transferring knowledge. Besides potential benefits from these exploitative activities, Hughes, Hughes and Morgan (2007) highlight the importance of the incubator management ensuring a more balanced learning approach by encouraging entrepreneurs to adopt explorative activities such as testing and experimenting. The incubator can transmit this encouragement through direct interaction with the incubatees (e.g. individual coaching sessions); giving an example, Patton and Marlow (2011) studied how a university technology business incubator facilitates EL through both exploitative and explorative activities and highlighted the important role of the incubator manager in the learning process. Agreeing with Levinthal and March (1993), the authors conclude their study by suggesting a mixed learning approach to hold most potential for generating beneficial outcomes through synergy effects.

Following the co-production theory, support activities in an incubator are referred to as counseling, networking, and training interactions (Rice, 2002) and have been found to be important enablers for EL (Scillitoe & Chakrabarti, 2010). The incubator support services facilitating these interactions are (1) coaching, (2) network, and (3) workshops and thus, subject to this study.

2.3.1.1. Coaching

Incubators provide intangible support to incubatees through mentoring and coaching (Bergek & Norman, 2008; Mian, 1996). These aim at developing as well as extending the skill-set of entrepreneurs concerning their abilities in running a venture (Smilor, 1987), hence, how to do business in real life. An incubator manager who takes the role of a mentor aims at both enhancing the incubatees' engagement in exploratory learning experiences and stimulating the entrepreneurs' reflections about these experiences (Patton & Marlow, 2011). In addition to business related support, mentoring through the incubator can be source of psychological support for the individuals (Bøllingtoft & Ulhøi, 2005). Along the process of starting up a business, mentoring has been identified to be highly relevant for incubatees (Peters, Rice & Sundararajan, 2004). Rice (2002) applies the theory of co-production as a basis to describe the interactions between the incubator and its incubatees. There are three distinct types of interactions, two of which are *episodic*, meaning that the aim is to solve an issue within a certain period of time (exploitative approach), and either *reactive* (entrepreneur-driven) or *proactive* (incubator-driven). The third interaction form, *continual and proactive*, concerns the continuous developmental needs of both, the incubatees as well as the incubator. Being this type of

interaction *continual*, it comprises exploitative learning through problem resolution; however, it simultaneously includes an explorative approach by for example setting milestones for future accomplishments. Rice (2002) further states that the incubator management's impact relates positively to (1) the amount of time spent on, (2) the intensity of, (3) the breadth of modalities used and, (4) the willingness of incubatees to take part in co-production activities (*reactive*, *proactive*, and *continual*). Taking a social capital point of view, a higher frequency of mentoring regarding interactions relate to better knowledge transfer and learning (Rice, 2002). Further, a mentoring or coaching program tailored to the recipient is highlighted to lead to improved learning outcomes (Blackman, 2010). The advice provided through coaching is considered using an action learning approach (Blackman, Moscardo & Gray, 2016) which is in line with experiential learning theory (*learning by doing*) (Cope & Watts, 2000; Gibb, 1993; Gibb, 1997). The incubator can thus facilitate EL by mentoring incubatees through direct interactions.

2.3.1.2. Network

Network is associated with how the incubatees are connected to each other and with the outside world (Bergek & Norman, 2008). Literature highlights network as a central element of an incubator (Bergek & Norman, 2008; Campbell, Kendrick & Kendrick, 1985; Carayannis & Zedtwick, 2005; Etzkowitz, 2002; Pauwels et al. 2014; Peters, Kendrick & Sundararajan, 2004) through which access to relevant knowledge and valuable contacts is provided (Hansen et al. 2000). As the *bridge* between incubatees and their environment (Bergek & Norman, 2008) the incubator facilitates two types of networks: (1) Internal and (2) external networks (Bøllingtoft & Ulhøi, 2005). Both contribute to broadening the incubatees' access to business contacts (Lyons, 2000) where formal sources are hardly used as entrepreneurs seem to rely on networks of informal nature to help build their ventures (Bøllingtoft & Ulhøi, 2005).

- (1) Internal networks are highlighted as being the most important incubator support system and especially valuable to social capital building (Bøllingtoft & Ulhøi, 2005). This is in line with incubatees making use of incubators as facilitators for relationship building to peers (Sherman & Chappell, 1998). Collaboration and networking among incubatees is enhanced by physically sharing an office space (Lyons, 2000). The access to collective social capital via incubators appears to increase entrepreneurial actors' social and economic opportunities (Bøllingtoft & Ulhøi, 2005). Particularly during early phases of the venture creation process entrepreneurs refer to their social networks as a safe environment to test ideas as well as to receive feedback and relevant input (Johannisson,

1988). Baggen, Lans and Biemans (2016) emphasize the importance of *significant peers* in enhancing the learning of the entrepreneur. The term describes people in the entrepreneur's network who can and want to share their experience from and knowledge in business practice (Baggen, Lans & Biemans, 2016). Inside the incubator, knowledge can be transferred and collectively generated by interacting (Dew, Velamuri & Venkataraman, 2004; Gemser, Leenders & Wijnberg, 1996; Rothschild & Darr, 2005). The incubator provides the social environment in which the incubated firms can learn through participation (McEvily & Zaheer, 1999; Mowery, Oxley & Silverman, 1996; Nonaka, Toyama & Konno, 2000) and knowledge sharing routines (Lynskey, 1999; Nonaka, Toyama & Konno, 2000; Szulanski, 1996). In this case, the incubator takes the role of an intermediary who allows the incubatee to co-produce learning with others (Rice, 2002). Fang, Tsai and Lin (2010) conducted a study on the effect of social capital for organizational learning in an incubator and concluded that learning is enhanced by actively leveraging the incubatees' social capital. The incubator management team hereby functions as a catalyser of social capital among incubatees (Hansen et al. 2000). Additionally, through a selection strategy the incubator determines who enters the incubation process (Bergek & Norman, 2008), hence the internal network, where symbiosis and mutual complementarity should be the guiding principle (Bøllingtoft & Ulhøi, 2005). The selection focuses on either the idea or the entrepreneur and can be based on either thorough (*picking-the-winners*) or less rigid (*survival-of-the-fittest*) screening criteria (Bergek & Norman, 2008).

- (2) External networks relate to the access to knowledge and relevant contacts outside the incubator such as for example potential customers and partners, local businesses and municipalities (Bøllingtoft & Ulhøi, 2005; McAdam & Marlow, 2008). Campbell, Kendrick and Samuelson (1985) describe access to expert networks being of essential value to incubatees. Through external networks, incubatees can connect to external parties serving as access to further opportunities to gain practical experience (e.g. interaction with customers, external workshops) and knowledge relevant to their venture creation which is not possessed by the incubator (Rice, 2002). Hence, the incubator functions as an intermediary between the incubatees and the relevant knowledge outside the incubator.

Overall, the incubator's network facilitates opportunities for the incubatees to generate learnings from experiences gained due to internal interactions as well as accessing external contacts and knowledge.

2.3.1.3. Workshops

An incubator supports through providing workshops and educational trainings to the incubatees in areas they currently lack knowledge and experience in (Peters, Kendrick & Sundararajan, 2004). The workshops are held by either employees of the incubator or by external experts (e.g. consultants) from the incubator network (Lee & Osteryoung, 2004; Rothschild & Darr, 2005). In these workshops the entrepreneurs enhance generating new knowledge by acting on various topics such as for example business planning, marketing skills, or accounting (Smilor, 1987), hence facilitate a simulation of a task which the entrepreneur faces in reality. The knowledge is acquired by actively participating in the workshop which is in line with, on one hand, Gibb (1997) and Rae and Carswell (2001) arguing that an action-based approach stimulates EL and, on the other hand, Reuber and Fischer (1994) stating that the individual acquires knowledge experientially through participation. Workshops can be referred to as simulation environments for EL taking a practitioner-based approach (Gibb, 1993), providing the frame for *experiential learning* regarding venture-related topics.

2.3.2 Different Types of Incubators

Incubators can differ in a number of ways, among these the context they are situated in, their primary goal as well as the degree of intervention. The following section will outline different incubator types for comparison and thereupon highlight how the UI differs in providing EL.

Generally, it can be differentiated between two different types of incubators: public (university and community) and private (corporate) which are found to pursue distinct goals; reasons to initiate an incubator therefore differ and hence, development expectations and outcomes vary (Kuratko & LaFollette, 1986; Smilor, 1987; Pauwels et al. 2014; Grandi & Grimaldi, 2005; Nair & Blomquist, 2018). The distinct types of stakeholders are distinguished into three groups and determine the context of the incubator: (1) Private entities, (2) local governments and (3) universities (Allen & McCluskey, 1990; Bøllingtoft & Ulhøi, 2005; Nair & Blomquist, 2018; Hackett & Dilts, 2004; Peters, Kendrick & Sundararajan, 2004; Campbell & Allen, 1987). The

incubation support services are adapted to the external context of the incubator as well as to the local needs and norms (Phan, Siegel & Wright, 2005).

- (1) The main goal of a private incubator is to incubate ventures with potential for high profitability (Campbell & Allen, 1987). They are operated by private investors or companies in a manner similar to venture capitalists following a for-profit orientation (Hackett & Dilts, 2004). Private incubators are self-funded which can influence the incubator management team's incentive structure and thus lead to increased involvement on an operational level (Grimaldi & Grandi, 2005).
- (2) Government incubators mainly aim for job creation and economic development in the region (Campbell & Allen, 1987). Being funded by public authorities results in them operating in a "politically charged environment" (p.58) and pursuing goals addressing the interest of community (Hackett & Dilts, 2004). The incubator management team takes the role of mediating between the incubatees and external parties which hold resources outside the incubator (Grimaldi & Grandi, 2005).
- (3) The UI generally aims at commercializing university inventions (Campbell & Allen, 1987) and is run indirectly or directly by a university (Hackett & Dilts, 2004; Mian, 1997). One of the initial reasons for placing incubators in a university context was to promote entrepreneurship (Albert & Gaynor, 2003) being the development of an *entrepreneurial spirit* the objective (McAdam & Marlow, 2008). Due to the proximity to university, this type of incubator fosters collaboration between students and industry while promoting research, entrepreneurship and networking (Clarysse, Wright, Lockett, Van der Velde, & Vohora, 2005; Mian, 1997). UI are seen as stimulators of academic entrepreneurship (Gielen, Cleyn & Coppens, 2013; Stal, Andreassi & Fujino, 2016). Their connection to university allows for accessing resources from academia which shape their support offering (Mian, 1996).

Among incubators, promoting entrepreneurship plays a more central role in a UI than in communal or private incubators (Mian, 1997). However, in comparison to other UI focusing on the commercialization of research as discussed earlier, the case incubator of this study pursues "the aim to stimulate entrepreneurship, and to support students and graduates who want to start their own businesses" (VentureLab, 2019, n.p.) as a primary objective. Hence, the case incubator differs by focussing on the individual's development rather than the idea's potential for commercialization. As the individual's learning is influenced by the environment, he/she

operates in (Hines & Thorpe, 1995; Pittaway & Cope, 2007a), the UI context affects how incubatees learn. Following, the academic context and how it is expected to influence the entrepreneur's learning is presented.

2.3.3 Academic Context

The institutional as well as social context of an incubator should be taken into consideration in order to fully understand the incubator's support systems as it shapes the environment for incubation (Bøllingtoft & Ulhøi, 2005; McAdam & Marlow, 2008). The proximity to university enables access to additional resources from academia crucial for the incubated firms (Autio & Klofsten, 1998) as well as the university's network (Mian, 1996), thus it increases the incubator's ability to offer services adapted to the needs of university-related individuals (e.g. students, alumni). In order to understand a university's infrastructure, it is necessary be aware of the conditions of the UI context which is influenced by factors such as the physical location and the university management (Gonzali, Masrom, Haron, Zagloel, & Tjahjadi, 2018). Hence, to understand contextual influences on the incubator's support services the university infrastructure needs to be taken into consideration.

Business incubation in a university context holds synergetic effects for entrepreneurial development (Hisrich & Smilor, 1988). Locating an incubator in the academic context contributes to the promotion of entrepreneurship (Albert & Gaynor, 2003) as universities are expected to enhance entrepreneurship through education (Stevenson & Lundström, 2002). As the development in the past years had shown, the importance of entrepreneurship within the academic context increased significantly (Greene & Rice, 2008; Hills, 1988; Ollila & Williams-Middleton, 2011; Kuratko, 2005). Thus, entrepreneurship education forms part of the context a UI is situated in.

The term entrepreneurial education focuses on knowledge, skills and behaviors required for running and growing a business (Jones & Iredale, 2010). Entrepreneurial education can be classified into education *about*, *for*, and *through* entrepreneurship (Gibb, 2002). Education *about* relates to teaching theory, education *for* refers to developing skills and practical experience, while *through* is associated with the simulation of entrepreneurial activity. O'Connor, Burnett and Hancock (2009) conducted a study on the "convergence of education with incubation" (p.787) aiming to shed light on how entrepreneurial education is facilitated

within a UI which highlights the important role an incubator takes in entrepreneurship education. According to Gibb (1993) the suitable environment for entrepreneurial education is determined by flexibility, freedom and informality providing a safe space for individuals to take responsibility and learn from mistakes. Such an entrepreneurial climate is created by putting the focus on the learning needs of the person receiving the education in order to stimulate relevant competencies (Gibb, 1993; Gibb, 2002). A UI focusing on the entrepreneur and his/her needs rather than an idea's profitability is thus to be expected to create a favourable environment for learning.

The university context can stimulate but also hinder EL (Gibb, 1993): it is stimulated by experience, hence education *through* taking a *learning by doing* approach (Cope & Watts, 2000; Gibb, 1993; Gibb, 1997). The learning experience can be hindered by extensive formal structures (Gibb, 1993) and entrepreneurship training may have little effect (Deakins & Freel, 1998). Acknowledging EL as an experiential process, university training for entrepreneurship requires an action-oriented approach (Johannisson, Landström & Rosenberg, 1998).

By aiming to foster an entrepreneurial mindset instead of generating high-profit ventures (McAdam & Marlow, 2008) the UI has a different focus than a commercially-oriented incubator. Commercial incubators design their selection strategies and incubation program accordingly (Bergek & Norrman, 2008; Bøllingtoft & Ulhøi, 2005), thus the types of entrepreneurs and ideas entering the incubator have to comply with the commercial objective. The entrepreneurs joining a UI such as the case incubator are thus expected to work on ideas which do not primarily need to aim at generating profit as the goal does not have a commercial focus. Hence, it is assumed that ideas of various kind are incubated inside the UI and that the non-commercial context has a favourable effect on EL.

In the context of incubation, university takes the role of linking academia with industry (Mian, 1996; Hacket & Dilts, 2004). The network resulting from such linking activities builds an entrepreneurial ecosystem (Bazerra, Borges, & Andreassi, 2017). Hence, the possibility for interaction between regional actors and academia is created by the means of the university infrastructure (Etzkowitz, 2003). Particularly student entrepreneurs are enabled to leverage these networks to increase their entrepreneurial competencies (Bailetti, 2011; Rasmussen, Mosey, & Wright, 2011). Hence, incubatees who study while pursuing an entrepreneurial career are expected to benefit from the network created through the university context.

Concluding, based on the above, the authors derive that the academic context is more suitable and particularly interesting for studying EL.

3 Methodology

3.1 Research Approach

This research essentially seeks to investigate how incubators situated in an academic context can contribute to EL. The EL process of individuals can be understood as a social construct, since the case participants will be influenced by prior experience, cultures, structures, and objectives (Bryman & Bell, 2011). Hence, the authors adopted the epistemological position of interpretivism which aims to understand the social world by examining how it is interpreted by the actors based on their own words, concepts and terms within that world (Bryman & Bell, 2011).

The social construct influencing the EL process will constantly change the individual's perception of the social reality. Therefore, social phenomena are in constant change when being produced through social interactions (Bryman & Bell, 2011). Henceforth, understanding the UI as a social entity and its incubatees as social actors, the ontological position of constructivism was followed. This approach assumes that social entities are constructed and revised by social actors and hence, social entities are constructions and not existing independently from social actors (Bryman & Bell, 2011).

3.2 Research Strategy and Design

Incubator research has emerged over the last few decades; nevertheless, there is still an opportunity to investigate how incubators in an academic context can contribute to EL of entrepreneurs. The purpose of this research is to gain an understanding how entrepreneurs acquire their entrepreneurial competencies in a UI and particularly, how the academic context shapes this process. Therefore, the objective is to explore the creation of new concepts and theories (Bryman & Bell, 2011). Correspondingly, this study took on a qualitative approach contrasting to quantitative approaches aiming to test existing theories (Gioia, Corley, & Hamilton, 2012).

Therefore, an abductive approach was followed, in order to be able to answer the research question (Bryman & Bell, 2011). An abductive approach combines inductive and deductive elements to generate concepts based on empirical findings and relates these to concepts found in literature (Bryman & Bell, 2011). It is to be noted that while this study applied an abductive theory approach, it was tenderly more inductive than deductive. Inductive reasoning allows the authors to see through the eyes of the people being studied and attribute meanings to events and their environments; this empathic stance is in line with the epistemological school of interpretivism (Bryman & Bell, 2011). Moreover, it enabled the authors to collect rich data and make thick descriptions of social settings, events and individuals for contextual understanding of social behaviour (Bryman & Bell, 2011). Ultimately, it allowed the development of tentative theory through empirical research, which not least is due to its iterative nature of the data collection by going back and forth between the data and theory. This approach encouraged repeated observations and enabled the authors to draw generalizable inferences of the repeated phenomenon into a potential conclusion. The inductive tendency of the research process entailed deductive elements, since theoretical and conceptual terms have been gathered prior to data collection as an inspirational base and afterwards served as an aid to understand empirical findings. This complementation adds to the generalizability of the findings (Bryman & Bell, 2011).

3.2.1 Single Case Study Design

This study applied a single case study, allowing for detailed and intense analysis of one particular case. A single case study emphasizes the unique context of a case in order to gain a deep understanding of its environment (Bryman & Bell, 2011). Therefore, it supports the contribution to EL literature by investigating the phenomenon in the unique context of a UI. The gathered information from the single case can help in developing an understanding of how UI influence the EL of student entrepreneurs.

3.2.2 Research Process

The case study was initiated with a superficial literature review which included topics of incubators and EL. While Gioia, Coley and Hamilton (2012) propose to stay *semi-ignorant* when working according to the grounded theory approach, it was necessary for the researchers

to get an understanding of the relevant concepts. Firstly, this provided the authors with a better understanding of the concepts within the incubator and EL field. Secondly, it gave indications of potential opportunities for contribution by conducting this research.

Based on the preliminary literature review, the researchers conducted several explorative interviews with the incubator manager. This provided insights on how the case incubator structures its incubation process as what it aims to accomplish and how it contributes to EL. Consequently, the researchers adjusted the literature review, identified new relevant concepts and reformulated the research question. After several iterations, a narrower research field and question had been set to guide this research while still remaining open enough to permit room for induction. This allowed new concepts to emerge from the subsequent semi-structured interviews (Bryman & Bell, 2011).

With the aim to explore how EL is facilitated and influenced, the research process continued with semi-structured interviews with the incubatees of VentureLab. Those interviews included categories that have emerged through the explorative interviews with incubator manager and theoretical concepts. As proposed by Bryman and Bell (2011), before the interviews had been undertaken, pilot interviews were conducted to test the interview guide. Subsequently, the interview guide had been adjusted. When data saturation was achieved, the data collection was finalized (Bryman & Bell, 2011).

The empirical data was then analyzed based on Gioia, Coley and Hamilton (2012) resulting in a preliminary model. The grounded theory approach is an iterative process and hence the role of theory has been evident throughout the process of the research and incorporated in the model (Bryman & Bell, 2011; Gioia, Coley & Hamilton, 2012). Literature was critical to establish a theoretical background to somewhat guide the interview process for both the incubator manager and incubatees, and the subsequent connection between concepts and empirical data. Throughout the data collection, theoretical concepts have been adjusted and added as new findings emerged. Ultimately, findings were discussed in relation to literature to draw a conclusion.

3.3 Data Collection Method

Data collection is determined by the research design and purpose (Bryman & Bell, 2011). Based on the chosen case study design of this study, the data collection was based on purposive sampling. This is based on the assumption that the chosen sampling population provides relevant insights and data in regard to the research question (Bryman & Bell, 2011). Relevant information for this research paper was based on an explorative in-depth interview, semi-structured interviews, and relevant websites. This supplied the researchers with valuable information to understand the context in which the EL process takes place (Bryman & Bell, 2011). These insights shaped and narrowed the research question. Ultimately, the semi-structured interviews produced the relevant data for the theory development of this study (Bryman & Bell, 2011; Gioia, Coley & Hamilton, 2012).

3.3.1 Case Company

The case company was chosen of academic interest and proximity to the researchers. Since the UI's aim is to facilitate EL and the latter concept has not been explored in relation to the former, it was of interest to investigate that relationship. Moreover, the gathered information from the case provides the study with meaningful insights and ultimately allowed answering the research question.

3.3.2 Unstructured Interview

An unstructured interview was chosen to generate rich qualitative data through open-ended questions (Bryman & Bell, 2011). The purpose of this interview was to understand the design and structure of VentureLab's incubation process, its purpose, goals, and how their support services contribute to EL. Therefore, an unstructured interview has been conducted with the incubator manager as the representative of VentureLab (see Table 1).

Incubator Employee	Interviewee	Quote Label	Date
Incubator Manager	1	E.1	26.02.2019

Table 1: Anonymized Interviewee - Incubator Perspective

The unstructured interview took around 90 minutes and was recorded and transcribed in order to enhance credibility and transparency (Bryman & Bell, 2011). The findings showed that there is no structured incubation process in place and that support services mainly evolved around *Network, Coaching, and Workshops*. This further on, provided a base for the semi-structured interviews.

3.3.3 Semi-Structured Interviews

Semi-structured interviews with mainly open-ended questions were designed with the aim to allow for a flexible interview process (e.g. flexible order, leaving out questions, adding follow-up questions). This in turn enabled the researchers to build upon the interviewees' answers and thus, collecting relevant and valuable insights which had not been foreseen (Bryman & Bell, 2011). With semi-structured interviews and open questions, interviewees had the freedom to express their interpretations. This in turn allowed the development of theory that is grounded in the interviewees' interpretation which is in tune with Gioia, Coley and Hamilton (2012) proposed grounded theory approach. The incubatee interviews ranged around 45 minutes.

3.3.4 Interviewee Sampling

For the data collection of this study, the incubator manager and incubatees have been chosen. The sampling was guided by the research question, which involves both the UI and its incubatees. Incorporating both sides, strengthens the empirical study and allows for triangulation (Bryman & Bell, 2011). Moreover, the purposive sampling method has been applied as it allows sampling in a more strategic way so that those sampled are relevant to the research question. However, purposive sampling does not allow generalizing to a population, which is acknowledged to be a potential limitation of this study (Bryman & Bell, 2011).

In total, all incubatees available have been interviewed which amounts to 15 interviewees (see table 2).

Incubatee	Joined in	Student	Interviewee	Quote Label	Date
Incubatee 1	2018	x	2	I.1	16.04.2019
Incubatee 2	2018	x	3	I.2	16.04.2019
Incubatee 3	2017		4	I.3	17.04.2019
Incubatee 4	2017		5	I.4	17.04.2019
Incubatee 5	2017		6	I.5	17.04.2019
Incubatee 6	2018	x	7	I.6	18.04.2019
Incubatee 7	2018	x	8	I.7	18.04.2019
Incubatee 8	2017		9	I.8	18.04.2019
Incubatee 9	2017		10	I.9	19.04.2019
Incubatee 10	2018	x	11	I.10	19.04.2019
Incubatee 11	2018	x	12	I.11	23.04.2019
Incubatee 12	2019	x	13	I.12	23.04.2019
Incubatee 13	2018	x	14	I.13	23.04.2019
Incubatee 14	2018	x	15	I.14	24.04.2019
Incubatee 15	2018	x	16	I.15	24.04.2019

Table 2: Anonymized Interviewees - Incubatee Perspective

3.3.5 Semi-Structured Interview Guide

The interview guide for this study was designed according to recommendations by Bryman and Bell (2011) regarding semi-structured interviews. This type of interview method allows for necessary structure while at the same time providing flexibility in the conduct and the use of follow-up questions leading to richer data collection (Bryman & Bell, 2011). The semi-structured interview guides were structured in “interview topics” (Bryman & Bell, p.437) which were based on the research question. For each topic, interview questions were formulated to capture the topics. Those interview questions were formulated rather broadly to avoid closing off alternative avenues of enquiry which may arise during data collection (Bryman & Bell, 2011).

Focusing on incubatees' EL, the structure was designed around four parts: (1) Introduction, (2) General information and background, (3) Incubation at VentureLab, (4) Closure (for a full outline of the interview guide, please refer to Appendix A). It is to be noted at this point, that while the interview guide lists 46 questions, not all questions had to be asked. The questions served rather as a checklist and left room for flexibility depending on what was shared by the interviewee.

Learning is an unconscious and informal process, particularly when it comes to EL, and is characterized as unintentional (Murphy & Young, 1990). Therefore, gaining an understanding of this phenomenon can be of a methodological challenge as entrepreneurs may struggle with the articulation of their learning process as they may be not used to reflect on such issues (Cope & Watts, 2000). Hence, a methodology was required that enabled the subjects to focus on the learning process more effectively. For this reason, the critical incident technique had been applied in the semi-structured interview guide as for example being applied by Cope and Watts (2000) and Deakins and Freel (1998). Critical events in the history (retrospective questioning) of starting up a new venture were particularly highlighted as the perceived criticality makes it easier to recall and connect them with corresponding learning throughout the interview (Cope & Watts, 2000). The critical events were used to encourage incubatees to expand on the process that led to the event, how it was resolved and ultimately, what was learned from the event.

3.3.6 Interview Preparations

Overall, 16 semi-structured interviews were conducted; the incubator manager and 15 with current incubatees. Due to richer data generation, all interviews have been conducted face-to-face (Bryman & Bell, 2011). Moreover, all interviews have been conducted at the UI's office in the south of Sweden. To make the interviewees feel at ease, the office meeting room was chosen to provide a safe, protected and quiet environment. Due to the international background of the researchers, all interviews were conducted in English. All interviewees were fluent in English on a professional level and hence, did not impact the validity of the findings (Bryman & Bell, 2011).

All interviews were held by two interviewers; one taking an active and the other taking a passive role. While one interviewer led the interview asking the majority of questions, the other

interviewer took notes, asked follow-up questions and ensured the relevance of the interviews' direction as suggested by Bryman and Bell (2011). All interviews were recorded and subsequently transcribed which corrects researchers' natural limitation of memory, allows more thorough examination and opens up data to public scrutiny (Bryman & Bell, 2011).

3.3.7 Ethical Considerations

Ethical considerations concerning the interaction between the researchers and the interviewees were taken into consideration to ensure validity. Ethical principles in business research can be categorized into four groups which served as a guideline to ensure integrity:

Avoid harm to participants

To prevent harmful complications associated with the information gathered from interviewees, anonymity and confidentiality were ensured at all times. This has the positive effect of openness towards the researcher (Bryman & Bell, 2011).

Informed consent

To fully ensure informed consent, an explanation about the research topic and the data collection process was shared with the interviewees. Furthermore, the researchers sought for consent about recording the interviews (Bryman & Bell, 2011).

Invasion of privacy

Interviewees were informed about their right to refuse answering questions as well as to receive corresponding transcripts for validation. The interviewees could be assured of their privacy by guaranteeing anonymity and confidentiality (Bryman & Bell, 2011).

Avoid deception

Minimizing deception, the applied research methods and the study objective were openly explained before conducting an interview (Bryman & Bell, 2011). The interviewees were given the opportunity to ask questions concerning the study at all times.

3.4 Data Analysis

Extant studies provide limited knowledge on how EL is facilitated by an incubator in the particular context of academia. Hence, this study was of explorative nature aiming to result in creating novel concepts and thus generate new theories. Given the rich data collection, the methodology developed by Gioia, Corley and Hamilton (2012) to analyze qualitative data in a structured manner was followed.

The chosen research approach by Gioia, Corley and Hamilton (2012) consists of several steps clearly documenting the procedure from direct quotes to conceptual dimensions into an interrelated grounded model. To develop such a model, first, the collected data was analyzed on an individual level, securing authenticity of the gathered information. Then, comparing and aggregating data sets allowed for further analysis on a collective level. Interdependencies were recognized and presented in a grounded theory model contributing to theory (Gioia, Coley & Hamilton, 2012). As each step can be reconstructed from the individual quote to the derived theorem, the framework of Gioia, Corley and Hamilton's (2012) secures transparency throughout the process.

The methodology of Gioia, Corley and Hamilton (2012) represents a systematic framework to approach rather unsystematic qualitative research. Hence, it contributes by increasing both, its validity and transparency. The foundation of a grounded theory model is a data structure (Figure 2) illustrating the process of representative quotes evolving into 1st order concepts which then lead to 2nd order themes and finally emerge into overarching aggregated dimensions.

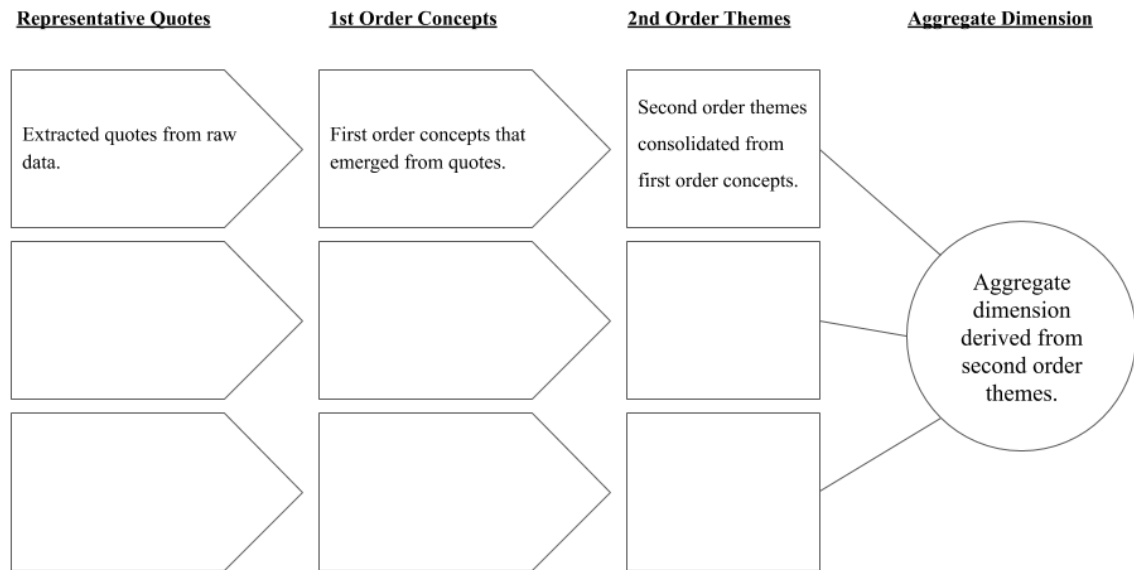


Figure 2: Data Structure for Data Analysis

As proposed by Gioia, Corley and Hamilton (2012) the first step aimed to collect the experiences and corresponding learnings from the data. The interviews were analyzed by first coding direct quotes relating to EL in the UI. Then, all relevant quotes were extracted from the semi-structured interviews. Comparing the representative quotes resulted in identifying both similarities and differences between the collected statements. These could then be narrowed down into 1st order concepts using informant terms which reflected the interviewees' language. In the next step, theory-centric 2nd order themes were established which related the findings concerning EL to existing literature. This step was taken considering Bryman and Bell's (2011) suggestion of applying two distinct perspectives on the data. Each researcher first developed 2nd order concepts by herself which were subsequently finalized together. Lastly, the 2nd order themes combined with corresponding literature were collapsed into overarching aggregated dimensions. These aggregated dimensions represented the concepts central to explain how EL is facilitated in a UI context.

The data structures were the foundation for these aggregated dimensions and strengthen the robustness of this study (Gioia, Corley, & Hamilton, 2012). Following the authors' method, these were constructed under consultation of existing literature, theories and concepts, hence including deductive approach elements. The authors thus achieve transparent data-to-theory connections and the display of dynamic interrelationships in their grounded theory model. Taking a solely inductive approach and thus excluding the iterative literature review would not

have led this research to a comparable in-depth understanding of the contextual influences on EL in a UI.

In Chapter 5 (Discussion and Analysis) the findings were compared and interrelated in a grounded theory model. The presentation of the relationships between the aggregated dimensions answers the central research question of this study: How can incubators contribute to entrepreneurial learning in an academic context?

3.5 Validity and Reliability

This study was of qualitative nature. The social context within the case UI is subject to continuous change. Both aspects make it difficult to replicate the research; therefore, external reliability is challenging to achieve (Bryman & Bell, 2011). However, Bryman and Bell (2011) suggest the adoption of a social perspective comparable to the initial researchers' when trying to replicate a qualitative study and thus enhance external reliability.

Internal reliability was accomplished through the close collaboration between the researchers in every part of the process. The collected data consisting of answers to open-ended questions required subjective judgement could have led to inconsistencies between the researchers in the analysis (Bryman & Bell, 2011); however, proactive and continuous sharing of individual interpretations over the research period of four months led to inter-observer consistency.

To achieve internal validity, it is crucial to identify strong correspondence between the established theoretical concepts and the researchers' observations (Bryman & Bell, 2011). Internal validity was ensured as the researchers took part in the social life of the incubatees and employees at case UI throughout the duration of the research period.

A single case study approach being a qualitative research about a social reality challenges this study's external validity (Bryman & Bell, 2011). However, Gioia, Corley and Hamilton (2012) highlight the *transferable generality* of a case if it has the potential to serve as a general example; hence the authors emphasize generalizability of a case study on condition that it creates principles or concepts relevant to another domain. Analyzing our data by the means of Gioia, Corley and Hamilton's (2012) framework allowed for generalizing the findings to theory and hence increasing generalizability of our research. The results of this study can be of relevance to other UIs which focus on facilitating EL.

3.6 Limitations

Certain limitations of this research can be identified. Firstly, to conduct a single case study involves restricted generalizability of the study results. Therefore, the insights gathered may be limited in applicability to other incubators differing in support services or context. Secondly, EL occurs in an unconscious and informal process (Marsick & Watkins, 1990) which can result in entrepreneurs having difficulties expressing their learning; however, they can only share those learnings which they are aware of. Even though we applied the critical incident technique as suggested by Cope and Watts (2000), there are potentially further learnings which we were unable to collect. Thirdly, EL is an experiential process influenced by prior knowledge and experience (Minniti & Bygrave, 2001; Politis, 2005), intrinsic and extrinsic motivations (Cope & Watts, 2000; Rae & Carswell, 2001; Cardon et al. 2009), cognitive effectuation abilities (Young & Sexton, 1997; Shane & Venkataraman, 2000; Sarasvathy, 2001) and stimulated by the social environment (Deakins & Freel, 1998; Johannisson, 1986; Pittaway & Cope, 2007b). The interviewees have been asked about their entrepreneurial experience before entering VentureLab and the data was analyzed considering the context inside the UI; however, due to the scope of this study, we did not consider the individual's prior experience, motivational or cognitive factors for the data analysis. Further, the case incubator's main goal consists of facilitating EL. Thus, the findings may not be entirely applicable to UI which pursue a distinct primary objective. Accordingly, the investigation of additional UIs would have provided an interesting possibility to compare and validate findings across cases. However, a multiple case study was out of the scope of this research due to time and resource constraints. Lastly, one potential limitation derived from interviewing current incubatees who have not yet finished the incubation. Hence, they may have not had the time to think about and reflect on their learning experience retrospectively or are not far enough in their venture creation process to have applied learnings from the incubator.

4 Findings

The following chapter will present the findings that resulted from our abductive research using Gioia, Corley, and Hamilton's (2012) systematic approach for new concept development and grounded theory articulation. The definition of themes within the aggregate dimensions followed a rather inductive approach, while the definition of aggregate dimensions applied a more deductive approach. Each chapter will begin with representative quotes from interviewees in order to provide evidence for the concepts (for a complete overview refer to Appendix B), themes and dimensions that could be derived from our data. Subsequently, the developed data structures are presented to disclose how 1st order concepts, 2nd order themes and aggregated dimensions were developed from the interviews. Overall, 27 themes emerged from the data which could be consolidated into seven aggregated dimensions, namely: EL Outcome, Action, Interaction, Coaching, Network, Workshops, and Academic Context. Based on these dimensions, the findings are presented and elaborated.

4.1 Entrepreneurial Learning Outcome

The interviewees were found to have improved their ability to cope with liabilities of newness and increased effectiveness in opportunity recognition as their EL outcomes. Specifically, they appear to have developed abilities in coping with stress, perseverance, sales, pivoting their business, talking to investors, general business operations, business modelling, and idea generation.

Representative Quotes from Data Collection	2nd Order Theme
“I developed a lot at VentureLab, but also just creating something and to not lose faith...” (I.11)	Perseverance
“And a little bit how to deal with some of the stress that may be come with that. Things like limited sleep and things like that can result from it. And they gave, I think some good advice on that.” (I.6)	
“...learning to take a lot of responsibility. You learn being creative and finding new solutions because that's what we have to do to stay alive.” (I.15)	

Representative Quotes from Data Collection	2nd Order Theme
<p>“And because of that, we learned a lot about trying to be better. And, yes, go out there and try to sell, be brave about it. [...] That was very helpful for us. Before we went to that program, we didn't talk about selling. And then we did” (I.5)</p> <p>“I did not have it in mind that it needed the [commercialization] part when I applied. But they've come to the realization during my time at VentureLab.” (I.11)</p> <p>“She tried to push us more. But we were product-focused in the beginning. But now we are less product-focused on more sales-focused.” (I.13)</p>	Sales Capability
<p>“...maybe it's better to take a few steps back and go to your team and develop your product a little bit more before you put it out to the market, as like most of the companies doing here.” (I.1)</p> <p>“...we had to pivot a lot, we started with the application for housing associations then we did white labeling for real estate companies.” (I.13)</p> <p>“I focused too much on what was outside me rather than what I actually liked. That's when I decided to pivot my idea and just focus on education.” (I.14)</p>	Pivoting Capability
<p>“... when you actually go to pitch, the way you say things and the way you explain things... But other people are like ‘What are you saying? Like, what?’ And that realization that ‘oh, I have to change the way I'm talking to people when they're not within the field’, that was an aha-moment for me, realizing I have to adapt to the audience.” (I.10)</p> <p>“...the insight [after a pitching workshop] that it's more than just a product, that it's the project, that we have to present it” (I.11)</p> <p>“We were pitching to different people. That was cool. I think that was the day that I most get something out of.” (I.14)</p>	Pitching Skills
<p>“how do you create an AB? What is the actual process? What was that? What do you think? What do you need to think about, you know, for taxes and stuff? It all seems like a scary world. But essentially, it's always the same, you know, and we had Renjer here, so we could ask them. ” (I.2)</p> <p>“I learned, like, some communication things, like some help if I'm listening to people how they're talking in the phone, for example.” (I.4)</p> <p>“Seeing that people have different expertise and they can help you with different things. For example, just last week, the guys from HomePal helped me declaring taxes, all that kind of things where the employees from VentureLab cannot help...” (I.14)</p>	Business Knowledge
<p>“We've gone through different payment models, that was something that we got assistance with actually.” (I.2)</p> <p>“We sat here for a meeting in this room actually. And she, we did this model, the business model canvas, for example. And she helped us by getting our company through the steps.” (I.5)</p> <p>“...she helped us more realize how you built business or how you should approach it” (I.15)</p>	Business Modeling Skills

Representative Quotes from Data Collection	2nd Order Theme
<p>“...there are a lot of nice people here, people that are doing their thing, and you can talk with them and get ideas of how you can change your business model to make it better.” (I.1)</p> <p>“... [Venture Lab] broadened my horizon, I would say first of all, regarding other areas of business...” (I.9)</p> <p>“...I started talking to him and bit, and then we thought ‘this is interesting, oh, this is interesting’. And then we merged everything. And then we were like ‘Oh, we have an idea here!’” (I.10)</p>	Idea Generation

Table 3: Representative Quotes of Entrepreneurial Learning Outcomes

Perseverance

The incubatees shared that within the UI they felt encouraged to not lose faith in their business idea as the process of developing a venture can be quite turbulent. The UI was found to help the entrepreneurs in coping with stress and balancing their work, studies and private life. Besides engaging in entrepreneurial activities, many of the incubatees are at full-time students having to keep up with their studies. The interviewees shared that the business developers advised them on how to deal with stress and how important it is to not undercut certain things like e.g. sleep in order to keep everything work. It was stated that they became more creative about finding new solutions on how to keep the venture going. They felt encouraged to not give up, be strong and learned to stay persistent.

Sales Capability

The sales workshops that are provided by a company outside the UI, seem to have a lasting effect on multiple incubatees. Within this workshop they have been taught how to be persistent about sales and how crucial courage, endurance and proactivity are when it comes to approaching customers. Some of the incubatees highlighted that through the incubator they became aware of selling being an important part of their business. Many of them are in a very early stage and hence, were focused more on solely developing their product or service. This let them engage more in sales and in some cases kept the company alive. Engaging with the market and talking to customers is another key learning of the interviewees. This broadened their minds in terms of how to design and build their offering and ultimately, let them recognize new opportunities they have not thought of before.

Pivoting Capability

The incubatees learned that pivoting and shaping their idea along the process of developing a business is a natural phenomenon. Something partially related with selling is the fact that through the incubator entrepreneurs became aware that to be successful, they had to talk to customers. Engaging with customers showed them whether there was a market for their business idea and whether their offering was adding any value. This resulted in some cases in them having to pivot their business idea and offering accordingly. Some incubatees admitted that they were very product-focused and learned that it was important to let go of certain features if they wanted to be successful. Moreover, just by being surrounded by different companies with different business ideas the incubatees could get inspiration and apply components of other incubatees' business ideas to their own context. Also, by talking to other incubatees they could develop their ideas further and eventually retarget their offering. Finally, the entrepreneurs stated that after pitching their business ideas to potential investors they pivoted consequently.

Pitching Skills

The interviewed incubatees seem to have learned how to effectively talk to investors. They shared that feedback prior and after the pitch provided by both their peers and business developers as well as pitching trainings helped them to improve. They learned that it is important to adapt the pitch to the audience and that they have to pitch more than just their product.

Business Knowledge

Concerning general business operations, the incubatees shared that they have learned for instance how to set up an AB, how to structure a meeting, how to declare taxes or just general skills like social media marketing or web design. The key source for these learnings seems to be the other entrepreneurs. Generally, it appears that the entrepreneurs became more business knowledgeable. The interviewed incubatees explained that since they joined the incubator, they have gotten a better understanding of how companies work and how crucial the commercialization part of any business idea is. It is to be noticed that many of the incubatees do not have a business background and hence, becoming more business knowledgeable enhances their ability to recognize potentially profitable business opportunities.

Business Modelling Skills

Mapping out the business idea together with the founding team had been mentioned to have stimulated the entrepreneurs to come up with new ideas for their business model e.g. payment models. Moreover, seeing other entrepreneurs adjusting their business models, keeps the interviewees in a continuous thought process in regard to their own business model and hence, to stay alert to new opportunities.

Idea Generation

It has been found that within the UI, incubatees get inspired by other entrepreneurs' ideas. This is due to the fact that the projects and ideas in the UI are very diverse which can inspire them to adopt or change their own business models. It can furthermore inspire them to develop new ventures in completely new and different business areas. Moreover, by talking and exchanging with other peers, it happened that incubatees came up with new business ideas and teamed up.

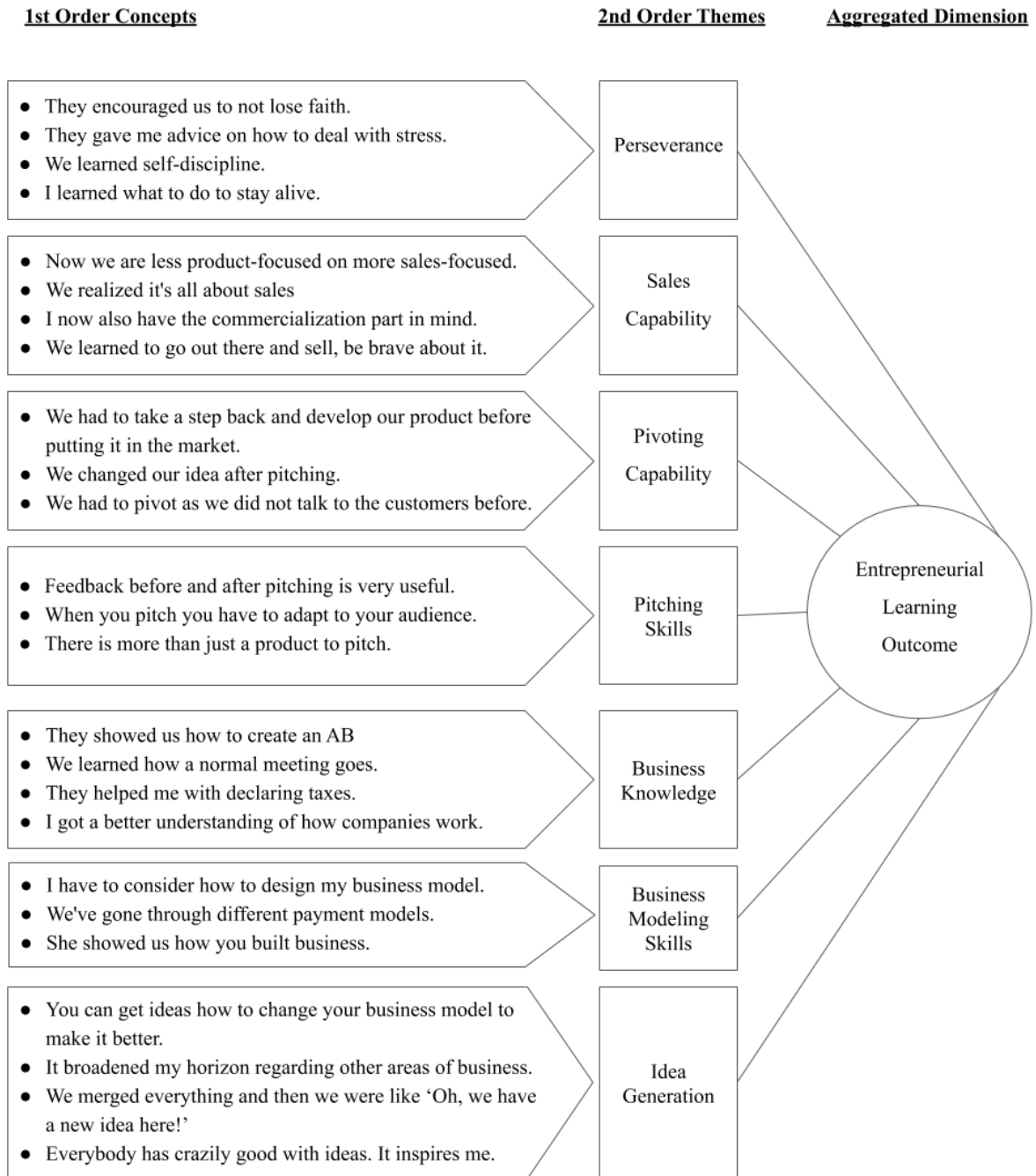


Figure 3: Data Structure of Entrepreneurial Learning Outcome

4.2 Learning Mode

Two manners of acquiring entrepreneurial knowledge through learning have been identified and are referred to as *Learning Modes*. Findings showed that the incubatees learned through *Action*, hence by doing, and through *Interaction*, hence in connection with others. Sometimes learning happened via several iterations of *Action* and *Interaction*. Further it was noted, that by far more learnings were triggered by *Interaction* than by *Action* leading to the assumption of one mode being more effective than the other.

4.2.1 Action

Learning through action was found to be a *Learning Mode* that has enhanced the interviewed incubatees' effectiveness of how they acquire entrepreneurial capabilities; specifically, through experimenting and taking ownership along the venture creation process.

Representative Quotes from Data Collection	2nd Order Theme
<p>“Because you can really come here with any idea, and you can try what it is like to run your own company. Let's see if it's anything for you at all.” (I.1)</p> <p>“Probably just come in, try it out. Try your idea, see if it's something for you or not. Maybe just kind of a test ground and giving you a little bit the tools you know” (I.7)</p> <p>“But when we went to Adsensus, for example, [...] went out and were more practical. That saved our company pretty much.” (I.10)</p>	Experimenting
<p>“I figured they shouldn't have to motivate you that you should just motivate yourself.” (I.11)</p> <p>“We had one meeting with Elisabeth where it was all four of us. We asked Elisabeth to join us to and it ended up with the four of us talking for like 45 minutes. We got through, just by having Elizabeth ask one question. And we were like ‘Oh, nice. Thanks.’ And she went ‘I didn't say anything’.” (I.13)</p> <p>“...my business advisor didn't know how to do it practically and I didn't know who to go to get help to do that. So, I just figured it out myself somehow...” (I.14)</p>	Taking Ownership

Table 4: Representative Quotes of Action

Experimenting

Interviewees highlighted that they learn most effectively by doing, hence by actually implementing and testing entrepreneurial activities such as pitching or selling. Being more practical and taking action is found to be more impactful on learning as opposed to workshops provided by the incubator. It has furthermore been stated that failures contribute more to

learning than successes. The incubatees perceive the UI as a safe space or playground where they do not risk too much. Hence, they can see VentureLab as a possibility to try what it is like to run a company. The protected environment was found to be taking away the pressure from the entrepreneurs to succeed. It has furthermore been mentioned that the fact that ideas are not being judged in the UI is really appreciated.

Taking Ownership

The incubatees figured that they should only motivate themselves rather than being motivated by the incubator. When the business advisor cannot help out with an issue, the incubatee decides independently and acts self-determinedly taking ownership for his/her matter. This had resulted in actual business coaching meetings being held by the entrepreneurs themselves with rare interference from the business advisor. Further, it was stated that starting an own venture comes with a lot of responsibility which one learns to handle.

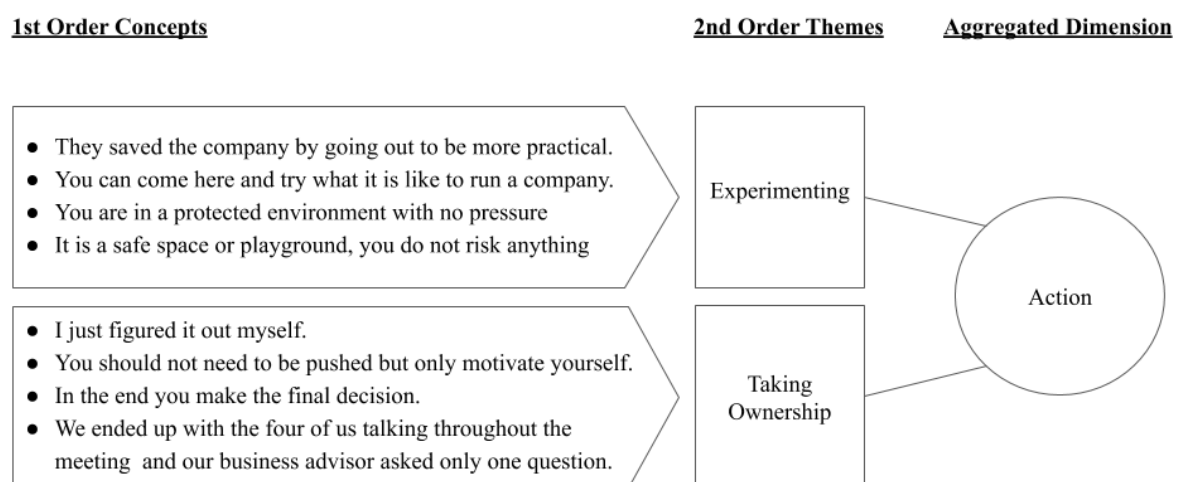


Figure 4: Data Structure of Action

4.2.2 Interaction

Next to learning through *Action*, learning through *Interaction*, hence through interpersonal connections was found to increase incubatees' effectiveness of how they acquire entrepreneurial capabilities. The interactions happen, on the one hand, among peers, and on the other hand, between the incubatees and the incubator. Peers interact particularly by helping each other, exchanging feedback, and sharing challenges. Incubator-incubatee interaction takes place in forms of the incubatees accessing advice as well as the incubator questioning and encouraging the entrepreneurs.

Representative Quotes from Data Collection	2nd Order Theme
<p>“If you have a spot in VentureLab. Just by like, just from the entrepreneurs, who are around you. Yeah, we got a lot of help from many people. Because sometimes there are like quite simple questions, you don't know the answer to yourself. And you can just go around and ask and then they help you.” (I.4)</p> <p>“...it's been quite relieving and also a bit developing to feel that I can give away some of the aspects or parts of the project and I don't have to be a hundred percent controlling.” (I.11)</p> <p>“...you always try to help people if they need it. And try to get help if you need help.” (I.15)</p>	Helping Peers
<p>“you are next to all these people; they are going to tell you something. So, the feedback thing incredible.” (I.2)</p> <p>“If you have something, you talk, they talk with me, and we just give opinions and maybe think differently, pretty much because it's so many different backgrounds here” (I.7)</p> <p>“I could probably go to anyone and ask them ‘okay, what do you think about this?’” (I.10)</p>	Exchanging Feedback
<p>“we recommend ... to network with the other because there is always someone else with the same challenges so to talk to the incubatees” (M.1)</p> <p>“...create this environment where people talk a little bit more about what they are having difficulties with, you know, not like, what are my news but more like, I'm having trouble with this.” (I.2)</p> <p>“Have people everywhere that are in the same stage. You can just push each other” (I.5)</p> <p>“Because then you can you share your experiences, you are with people who are in a very similar situation to you. So that your challenges are relevant to them, and vice versa.” (I.6)</p>	Sharing Challenges
<p>“of course, just ask us if there is anything particular that they need. But not a program in that sense that ‘Ok now we have a plan for everyone to do this’” (M.1)</p> <p>“...if you have any questions, you can always find someone to talk” (I.1)</p> <p>“So, we knew that we could book meetings with them. If we need to solve some problems.” (I.4)</p>	Accessing Advice
<p>“We had Elizabeth, by the way. And so, she was great for assisting of those matters. And she, you know, she questioned every bit and piece.” (I.2)</p> <p>“So having somebody who questions us on basically every step of the process was really good, and sort of shaping, you know, not giving us the answers, but asking the questions that we discuss ourselves, which then led to, you know, realizing the importance of various aspects.” (I.4)</p> <p>“... [at the business coaching] I would be kind of challenged about my own ideas on what I was doing.” (I.14)</p>	Questioning

Representative Quotes from Data Collection	2nd Order Theme
<p>“we want to empower our students to create the future, that is the main goal of the incubator like even if they don’t succeed with the company they are here with, they should feel empowered that they can do this and if not with the idea, maybe with the next idea.” (M.1)</p> <p>“But they're like doing their best to encourage you in any other way. By being nice and organizing, like afterworks, and some events and stuff like that, where you can then bond better with our companies.” (I.4)</p> <p>“...the most helpful personally for me is that [Venture Lab] keeps me motivated to come to work every day...” (I.9)</p> <p>“...when I've talked about networking and contacting people, in business advisory meetings, they said ‘Just do it’.” (I.10)</p>	<p>Encouraging</p>

Table 5: Representative Quotes of Interaction

Helping Peers

The interviews showed that incubatees seem to rely on the help of their peer entrepreneurs around them. It was shared that entrepreneurs asked other entrepreneurs, particularly those of which they thought were more experienced, for help. Mutual help among peers was stated to occur in different areas e.g. when it comes to referrals, bookkeeping, pitching, or negotiations.

Exchanging Feedback

Incubatees have access to immediate and free feedback from their peers from which they can learn. It has been highlighted that particularly the different backgrounds, different business ideas and hence different opinions are very valuable. Peer feedback has been taken into consideration when it comes to short and quick feedback in regard to product or service offering, pitching, or a new business idea.

Sharing Challenges

The incubatees highlighted many times that they felt lifted up by the incubatees around them. This occurs either actively through talking or passively through observing. It was found that just seeing other incubatees being persistent about e.g. selling can motivate other incubatees to keep on going as well. Also, the success of other incubatees and seeing that it is possible to make it, makes incubatees feel happy and drives them to progress. Sharing challenges with each other is found to be an important factor for incubatees; particularly, because other incubatees are facing similar challenges. It has been emphasized that learnings were also taken from past companies’ challenges. Knowing that there might be other companies that have encountered

similar challenges before and could give advice on how to best overcome them, seem to have contributed to the interviewees' learnings.

Accessing Advice

The incubatees expressed their knowing about always having someone knowledgeable from the UI available to ask questions to. Even if an incubatee had not yet made use of such help, he/she is aware of the option to do so and feels comfortable about asking for it. The UI offered room for the incubatees to reflect on their ideas with a business coach. Overall, advice was made accessible to incubatees at all times and only provided when asked for.

Questioning

Several incubatees shared their experience of how the questions asked by the business coach added value to their venture development. The business coaches made the incubatees reflect on their actions in two ways: First, by making the incubatees talk about and explain their business ideas during the coaching meetings and second, by challenging their actions and decisions. The incubatees highlighted that they had to find the corresponding answers to the questions themselves without the business coach steering towards the answer.

Encouraging

The incubatees expressed that the UI staff was very encouraging by both making them take action for their venture and giving moral support. When incubatees felt unsure about for example reaching out to a new business contact, the coaches assured them to take the initiative. The incubatees also valued the incubator's supportive attitude manifested amongst other things through after work events which made them persist in pursuing their project. Thus, VentureLab encouraged its incubatees on a personal as well as professional level.

1st Order Concepts

- We asked other entrepreneurs for help, because they were more experienced.
- You listen to their stories, their problems, maybe you can help them, maybe they can help you.
- It's relieving to have someone who takes over some work.
- I have specific knowledge in bookkeeping, I help people out with that.

- We got a lot of feedback, free feedback.
- We just give opinions and maybe think differently.
- You can walk up to anyone and ask what they think.
- You are next to these people and they all have something to say - the feedback is incredible!

- There are a lot of people here that can lift you up.
- To see other companies making progress makes me happy.
- It shows you that it's possible to make it and to take it to the next level.
- It's a really nice forum for sharing your problems.
- Your challenges are relevant to them, and vice versa.

- We knew we could book meetings with them when needed.
- You can always find someone to answer your questions.
- I will definitely ask for help when needed.

- Our business advisor questioned every bits and piece.
- It's good to have someone who questions us at every step without giving any answers.
- I got challenged on my ideas.

- They do their best to encourage you in any way.
- We would have stopped the project without the incubator.
- They really try to make it happen and are very supportive.
- They said 'Just do it',

2nd Order Themes

Aggregated Dimension

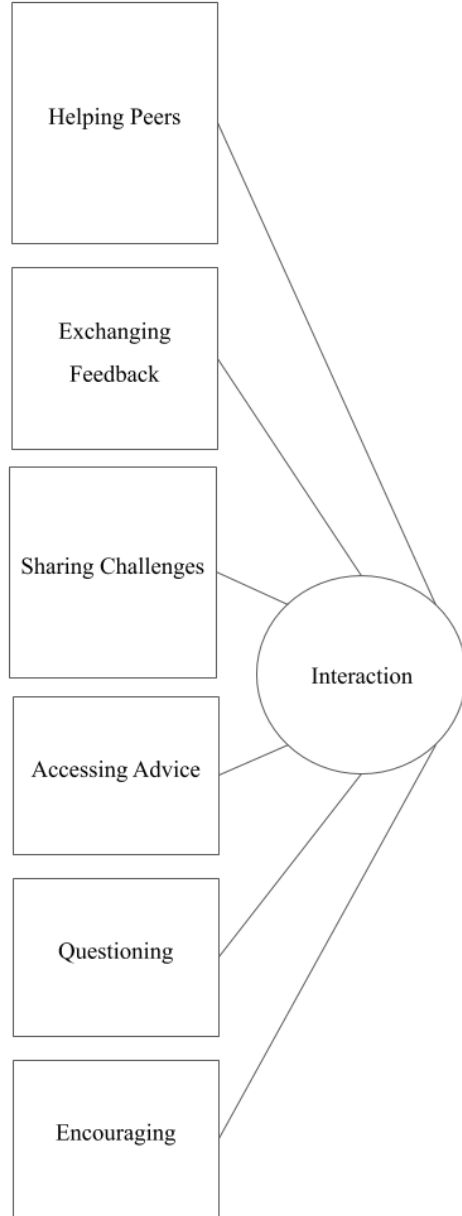


Figure 5: Data Structure of Interaction

4.3 Incubator Support

4.3.1 Coaching

The findings show that coaching is provided on a professional and personal level. On the one hand, the business advisors provided business support for the entrepreneurs and their ventures. On the other hand, the incubator staff takes the role of psychological support when needed.

Representative Quotes from Data Collection	2nd Order Theme
<p>“We sat here for a meeting in this room actually. And she, we did this model, the business model canvas, for example. And she helped us by getting our company through the steps.” (I.5)</p> <p>“...we had an idea, we came to this meeting, and we got either confirmation that we were on the right track or they gave some advice...where to look else for help, or which other direction to take or something like that” (I.9)</p> <p>“...we got our own business advisor that we met every two weeks or something. So that was really good, just catching up and really putting us in the right direction.” (I.15)</p>	Business Support
<p>“And a little bit how to deal with some of the stress that may be come with that. Things like limited sleep and things like that can result from it. And they gave, I think some good advice on that.” (I.6)</p> <p>“...the most helpful personally for me is that [Venture Lab] keeps me motivated to come to work every day...” (I.9)</p> <p>“[VentureLab] has been essential to get to where we are today. I think we would have stopped with this project months ago...” (I.13)</p>	Psychological Support

Table 6: Representative Quotes of Coaching

Business Support

The incubatees mentioned the support provided in forms of business meetings with an internal business coach from VentureLab. The support was mostly provided in form of business modeling with the business model canvas tool. However, also individual support was provided such as for example setting deadlines when needed. The help from the business advisor in topics related to the idea had been greatly valued by the incubatees.

Psychological Support

Some interviewees highlighted how VentureLab is a reason for them to proceed and to come to the office every day. The incubatees value the advice provided by at VentureLab on a personal

level. Psychological support through the incubator staff was highly appreciated recognizing how the incubator helped mentally to e.g. approach new contacts.

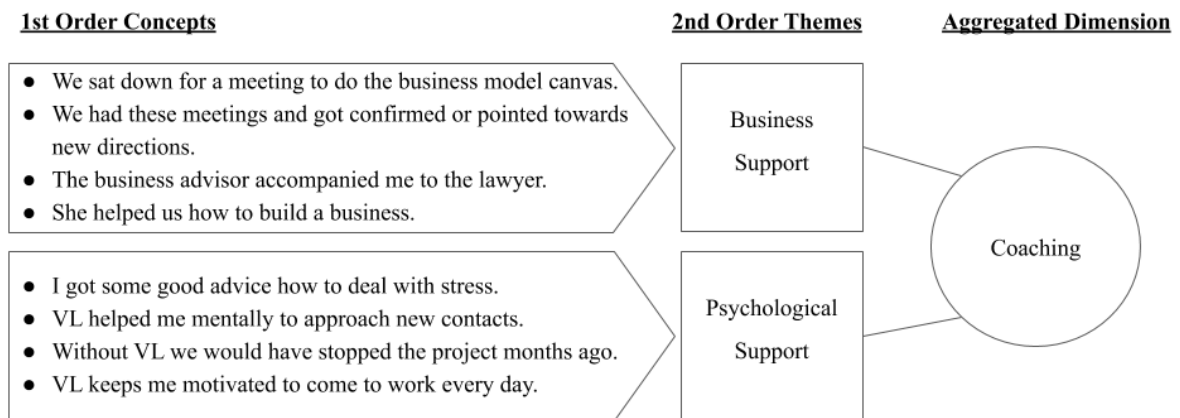


Figure 6: Data Structure of Coaching

4.3.2 Network

The incubator’s network comprises contacts to external parties such as experts, investors, and lawyers as well as internal relationships to peers. Both are highly valued by the incubatees in terms of support along their venture creation process; however, the connection to fellow entrepreneurs was emphasized as an essential part of the incubator for incubatees.

Representative Quotes from Data Collection	2nd Order Theme
<p>“Second of all, they have a lot of good contacts, they have good lawyers, good people with economic skills and everything you need to keep the business running...” (I.1)</p> <p>“...they could guide you to another more experienced person, the people that work usually have a good network and connect you with a specific person.” (I.9)</p> <p>“...especially being situated here at Ideon, there’s just a bunch of different companies around you.” (I.10)</p>	External Network
<p>“I think that is probably one of the most interesting and kind of exciting aspects of venture lab is that they have a lot of people working here who have developed their businesses quite well.” (I.6)</p> <p>“I like to be here. I like, you know, like being around the people. How it helped me? Yeah, maybe networking maybe also not being only with people my age, maybe broaden the, you know, your network, the ages, you know be more with students having some bright minds, fresh minds around you. Yeah, I guess that helps.” (I.7)</p> <p>“...just the whole atmosphere of working with, I guess, a like-minded people, I think that's most important to me...” (I.9)</p>	Internal Network

Table 7: Representative Quotes of Network

External Networks

The incubatees frequently mentioned the great value of VentureLab's connection to industry experts, legal support, funding sources, and external workshops. Especially participating in a professional sales program was highlighted to be crucial for several ventures' development. The location of the UI at a science park contributes to the quality of the incubator's network which has been appreciatively recognized by the incubatees. The interviewees acknowledged the UI offering opportunities to connect them to specific contacts outside their individual reach.

Internal Networks

The incubatees emphasized that they enjoy and value the exchange with like-minded people. Through connecting with other entrepreneurs in the incubator, they broadened both their professional and private network. Several incubatees highlighted the atmosphere created through other entrepreneurially-spirited people as one of the things they value most about being part of VentureLab. By providing a physical space, the incubator creates the possibility for the incubatees to build relationships with their peers.

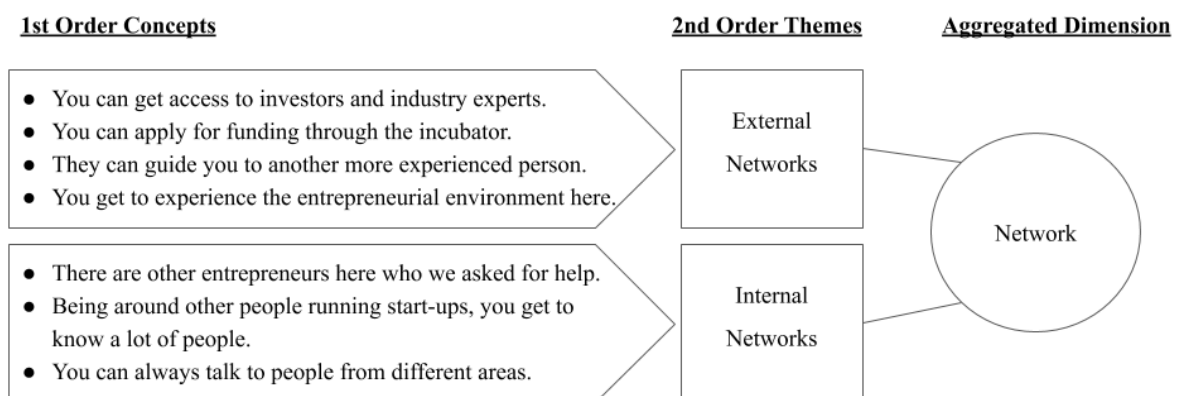


Figure 7: Data Structure of Network

4.3.3 Workshops

VentureLab offered access to different kinds of workshops. On the one hand, pitching training provided by incubator staff and on the other hand, a sales program held through an external provider. Besides these, additional workshops were offered throughout the Ignite Program. However, workshops had been rarely attended and evaluated as not helpful, as a *learning by doing* approach is being favored, therefore these are not considered as initiators of EL in this study. For transparency reasons, Workshops have been included as an aggregated dimension in

the Findings. However, as no significant relationship between Workshops and EL could be identified, it will be disregarded in our Grounded Theory Model.

Representative Quotes from Data Collection	2nd Order Theme
<p>“I think you learn pitching by doing it in real life not in a workshop.” (I.4)</p> <p>“we don't like workshops. Of course, the idea is good. But it takes a lot of time. And we know we just going to end up with something that I can read in a book in 20 minutes instead of listening for one hour.” (I.5)</p> <p>“pitching preparation of how you present your business, and to which audience you present it.” (I.6)</p> <p>“...I don't have the need or the time or the interest to now go on these events to pitch...” (I.12)</p>	Pitch Training
<p>“...we got the chance to take part in a [...] sales program. [...] I think that's like one of the factors that actually changed our company completely.” (I.4)</p> <p>“So, the [sales] program was more focused on our situation [...]. And so the coaches there were very [interested] about getting to know our company and making this program specified for us, that was really good. And because of that, we learned a lot about trying to be better. And, yes, go out there and try to sell, be brave about it. [...] That was very helpful for us. Before we went to that program, we didn't talk about selling. And when we did” (I.5)</p>	Sales Program

Table 8: Representative Quotes of Workshops

Pitch Training

The incubatees could attend a pitching workshop to practice the skills in presenting their ideas. During these sessions, they could pitch to different listeners having to adapt to their audience and gain feedback from them. Multiple interviewees highlighted that workshops like pitching take up a lot of time in which they do not see particular value but prefer reading the information themselves or pitching in real life.

Sales Program

VentureLab connected those incubatees who saw value in it for their venture with a local provider of a professional sales program. It served as an organized starting point for several incubatees to engage with potential customers. While participating in this workshop was perceived as helpful for their ventures' progress due to its practical approach, only very few founding teams participated in this program.

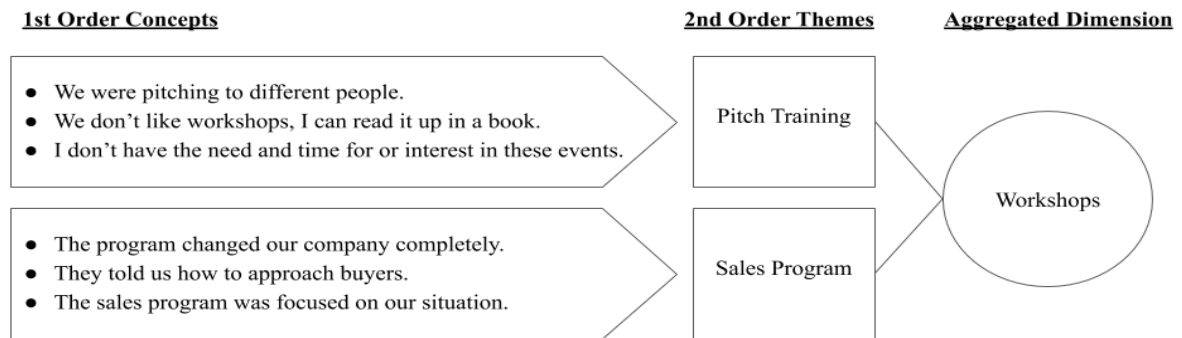


Figure 8: Data Structure of Workshops

4.4 Academic Context

The findings show that the internal environment of the UI is defined high *Flexibility* for the incubatees in their actions. Especially the student entrepreneurs felt a convenient fit due to the incubator’s *Accessibility*. Further, VentureLab’s selection of incubatees is based on *Inclusiveness*. Lastly, an elevated *Sense of Community* among peers dominates the atmosphere at the office.

Representative Quotes from Data Collection	2nd Order Theme
<p>“We are trying to adopt to their needs rather than the opposite” (M.1)</p> <p>“VentureLab is a little bit more chilled. You can come here, and then you can develop your idea in your own pace.” (I.1)</p> <p>“So, I think it's a fairly casual environment here. And at the moment, that works for me, because I'm so occupied.” (I.6)</p> <p>“I think it's perfect to have not too much pressure, because you're still studying at 100%.” (I.13)</p>	Flexibility
<p>“They can get ... everything to make it easy for them to try it without really risking that much” (M.1)</p> <p>“Since I'm studying here in Lund it's very convenient for me to just walk here from LTH. It is like a three minutes-walk for me. So that's perfect.” (I.1)</p> <p>“I would say because, in essence, we're quite lazy. So we would always pick something that's very close, we're still studying. [...] So the proximity was essential” (I.2)</p> <p>“So, you can if you do need to talk to them about something you can do that.” (I.6)</p> <p>“I do still feel that this is part of university I cannot really say why. “ (I.14)</p>	Accessibility

Representative Quotes from Data Collection	2nd Order Theme
<p>“We try to bring in as many as possible. We do not see it as a purpose for us to be exclusive. It is better to help as many as possible and then they can determine themselves how much help they want...” (M.1)</p> <p>“We also try to look into the diversity of the incubator. It should be a diverse place because then people have the most use of each other. This can be gender, nationality, faculty...we try to get a big spread on that one” (M.1)</p> <p>“But I think here they are more open and accepting more projects to be part of the incubator.” (I.4)</p> <p>“...and meeting people from different cultures. There is something beautiful about that.”(I.5)</p> <p>“I feel like venture lab, they have lower entrance barriers.” (I.10)</p>	<p>Inclusiveness</p>
<p>“Even if you don’t get any knowledge from the other entrepreneurs in the network, you can be helped when you have a down and you lose hope and determination to see others that work hard and the determination they have can influence you as well with a positive attitude.” (M.1).</p> <p>“But it's, it's more the spirit. It's kind of the network, but it's the you know, the people around you are in a similar situation ... we are facing the same problems and you have the you have similar issues. And you just want to help each other out.” (I.4)</p> <p>“The thing is like we have become family. When I'm not in school, I'm here. I actually skip exams, because I want to be here. [...] It is because of them, I'm here.”(I.5)</p> <p>“...when I joined, the reason I'm here is because the social climate you have.” (I.12)</p> <p>“I made so many friends in VentureLab, that's really nice. So it's a really good community. We have movie nights, and we have great after works.” (I.15)</p>	<p>Sense of Community</p>

Table 9: Representative Quotes of Academic Context

Flexibility

The internal environment at VentureLab is described to be rather casual. The incubatees mentioned that there are no strict rules to follow and that everybody can be at VentureLab at the times he/she prefers. The incubatees felt that they can develop their ideas at a self-chosen pace without having to comply to any deadlines. The incubatees felt no pressure exerted from the UI in terms of having to deliver something. This freedom and flexibility in the way of working was perceived positively as incubatees valued the opportunity to work on their projects without being stressed. Particularly those entrepreneurs who study at university appreciated a balanced relation between work and leisure time. Several entrepreneurs acknowledged that VentureLab reacted very understanding to them being students and hence limited in the time they could spend on their projects. Overall, VentureLab is perceived as a suitable place for

students to try out their ideas allowing students to put theoretical knowledge obtained at university into practice in an autonomously chosen manner.

Accessibility

The close location of VentureLab to the university campus results in increased practicality for student entrepreneurs: several interviewees put emphasis on the physical proximity being a triggering factor for them to enter the incubator in the first place. Some entrepreneurs heard of VentureLab by coincidence and then decided to apply for the program. Further, entrepreneurs who recently graduated from university saw joining VentureLab as an especially convenient opportunity. Accessibility is also given in terms of the staff always being approachable for the incubatees.

Inclusiveness

The incubatees described VentureLab as being open to various kinds of projects. They appreciate the accepting attitude which manifests in loose criteria and an inclusive selection strategy. The interviewees feel like every entrepreneur is given a chance to test his/her idea resulting in a value-adding diversity of both ideas and people inside the incubator, as they highlighted. Multiple interviewees acknowledged the variety of business ideas among the ventures and valued the hereby offered insights into new fields. Concerning the entrepreneurs, the different professional as well as cultural backgrounds are perceived as enriching. Overall, the internal environment of VentureLab is described as welcoming and inclusive.

Sense of Community

Entrepreneurs at VentureLab being in the same situation seems to be very valuable in terms of learnings. Knowing that the other incubatees are also students and are mostly at a very early stage of the venture creation process appears to encourage the interviewed incubatees in sharing their challenges, knowledge and supporting each other. When it comes to belonging, it has been found that just being surrounded by other companies gives the incubatees a sense of community and a sense of belonging. Multiple times a feeling of familiarity was mentioned due to the majority of fellow incubatees being students. Interviewees highlighted that they really enjoy being at VentureLab which is mainly due to the people. It motivates them to keep going and to come to work. It has moreover been mentioned that the incubatees see each other like family and were able to develop new friendships.

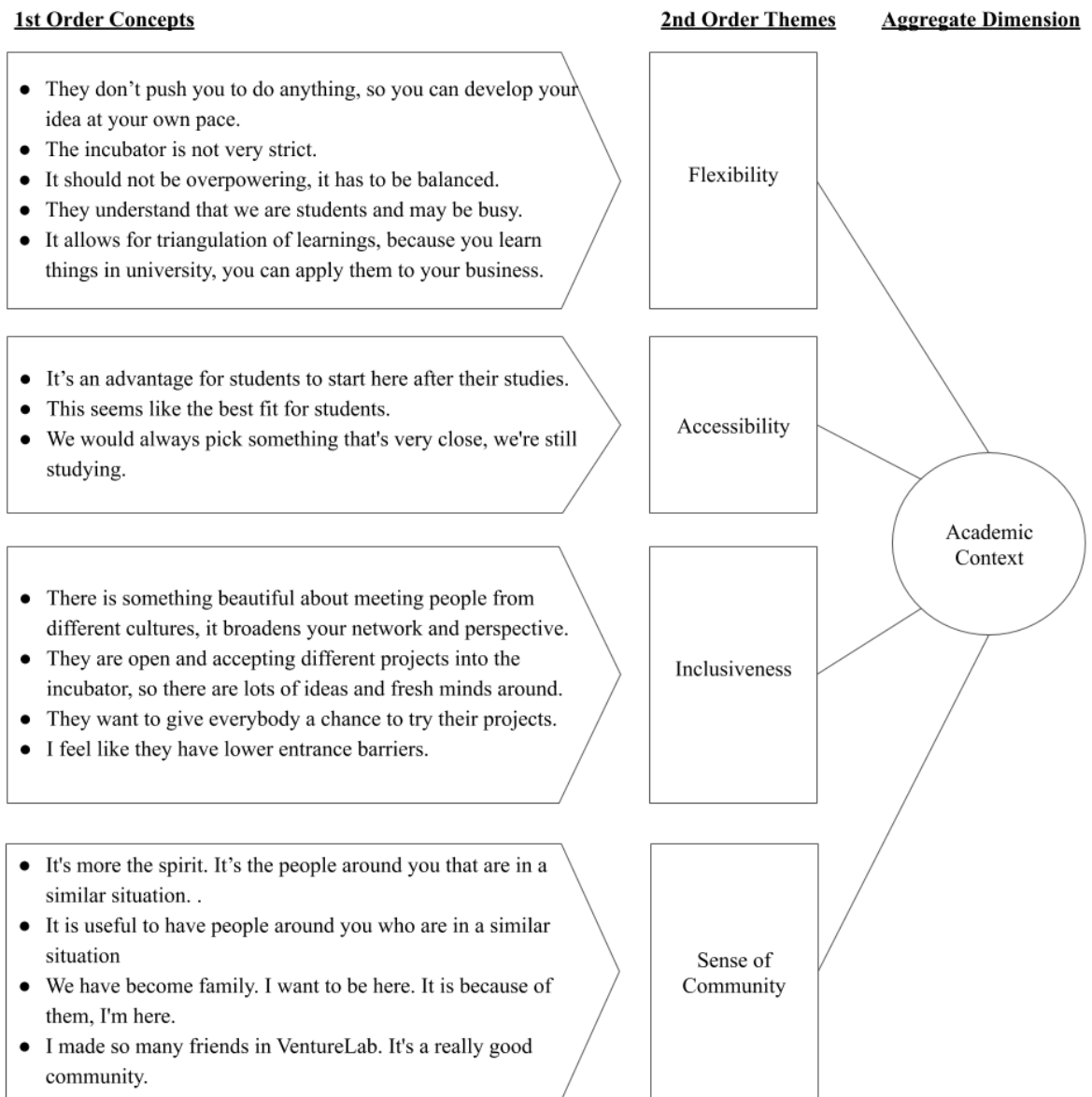


Figure 9: Data Structure of Academic Context

5 Analysis and Discussion

The following chapter will analyze the understanding of the empirical data taking into consideration the literature review in order to answer the research question and meet the purpose of this study. The distilled aggregated dimensions comprise of Network, Counseling, Workshop, Action, Interaction, and EL Outcomes. To answer the research question, we need to understand how these aggregated dimensions interrelate and ultimately influence EL. Hence, the following grounded theory model serves as an illustration. The subsequent section will discuss the interrelationships more in detail, while making a link to theory.

5.1 Grounded Theory Model

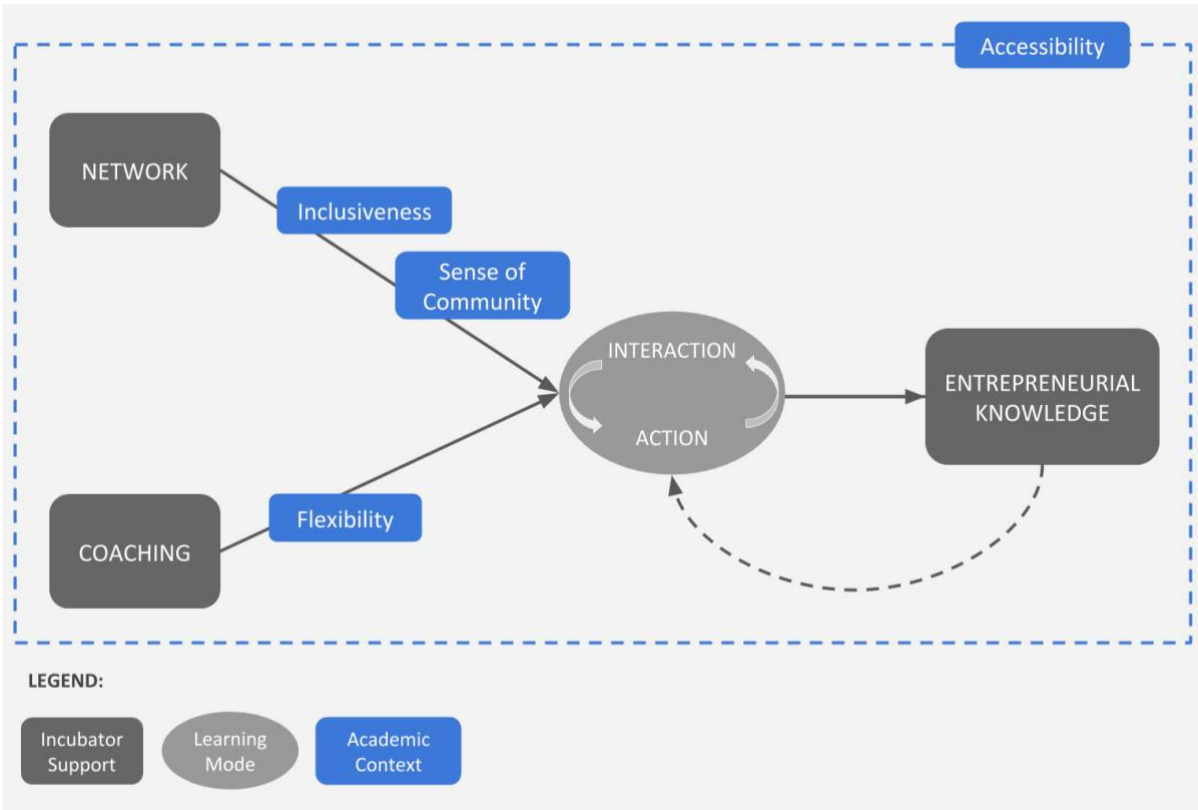


Figure 10: Grounded Theory Model of Entrepreneurial Learning in University Incubator

The grounded theory model presented in Figure 11 treats the incubator as the facilitator of support services (Network, Coaching) which trigger the experiential process (interaction and action) of EL and ultimately lead to EK. This is in line with Kolb's (1984) *acquisition* and *transformation* dimensions which correspond to *entrepreneurial experience* and *entrepreneurial knowledge*. The author states, learning requires a grasp of experience which is subsequently transformed into knowledge. Learning is hence, a continuously created and recreated transformation process of experiences (Holmqvist, 2000). Accordingly, the process is displayed as continuous. The findings show that entrepreneurial actions and social interactions are most effective to prepare the incubatees for entrepreneurial endeavors. Both occur in tandem and cannot be separated from each other. This is supported by literature, by stating that learning is a social construct and cannot be separated from practice (Harkema & Schout, 2008; Mueller, 2011; Sanchez-Escobedo et al. 2011) and that experiential learning is influenced by social interactions (Cope, 2005; Gibb, 1997; Pittaway & Cope, 2007b; Rae & Carswell, 2001).

The support services trigger an interaction or action, hence an experience, whereupon the experience is transformed into entrepreneurial knowledge. The empirical study shows that academic contextual factors such as *Accessibility*, *Flexibility*, *Inclusiveness*, and *Sense of Community* influence the process of acquiring entrepreneurial knowledge inside the case incubator. This is fully supported by literature, as the institutional and social context of an incubator shape the environment of incubation (Bøllingtoft & Ulhøi, 2005; McAdam & Marlow, 2008). Network contributes most to EL and is enhanced by contextual factors such as *Inclusiveness* and *Sense of Community*. Coaching somewhat contributes to EL and is determined by *Flexibility*. Finally, *Accessibility* contributes in that sense, that it enables and initiates the EL process. Subsequently, we will explain more in detail how the incubator contributes to EL and how the academic context shapes this process.

Since *Accessibility* is not attributable to one single support service but rather influences the EL process as a whole, it will be explained in the following:

Most incubatees at VentureLab are not primarily entrepreneurs, but students. Therefore, *Accessibility* plays an important role. On the one hand, in terms of the physical proximity, on the other hand, in terms of an increased feasibility of becoming an entrepreneur. The first aspect of *Accessibility*, the incubator's physical proximity, leads to increased practicality in everyday

life. The fast and easy access to the office is perceived as very convenient. Some findings show that this *Accessibility* was key for entering VentureLab in the first place and hence, increases the likeliness of an entrepreneur joining VentureLab: “we would always pick something that's very close, we're still studying. [...] So the proximity was essential” (I.2). This confirms Gonzali et al. (2018) stating the need to consider contextual factors which concern the physical location. Eventually, only when joining VentureLab, interactions between the incubator and the incubatee as well as among the incubatees could take place and thus, the EL experience of the individual could commence. The second aspect of *Accessibility* translates into the increased feasibility for students to become an entrepreneur. The incubator allowing incubatees to access relevant and crucial resources (Autio & Klofsten, 1998; Mian, 1996) contributes to turning an own venture into an attainable option: “[VentureLab] has been essential to get to where we are today. I think we would have stopped with this project months ago...” (I.13). In addition, the examples of other students founding their businesses and eventually succeeding with them, moves an entrepreneurial endeavor of their own closer to reality. The incubator has blended in with the student's everyday life: “I do still feel that this is part of university I cannot really say why” (I.14). The *Accessibility* of VentureLab for entrepreneurs contributed to initiating and proceeding with the idea by lowering the need to put an extra effort, but rather offering a convenient possibility to realize their ideas to the incubatees. This is in line with the increased feasibility of the venture enhancing the entrepreneurs' intention and motivation (Farmer, Yao & Kung-Mcintyre, 2011; Krueger, Reilly & Carsrud, 2000; Rae & Carswell, 2001). As the findings showed, motivation led to proceeding with an idea and thus more action-taking which again provides experiences the individual can learn from. Overall, *Accessibility* is an enabling factor for the EL process in the academic context.

5.2 Coaching

Coaching is provided by the case incubator in two different manners: on the one hand, related to business aspects, on the other hand, concerning personal matters. Following, the learning experiences relating to (1) Business Support and (2) Psychological Support will be analyzed from a learning perspective taking the academic context into account. Particularly the contextual factor of *Flexibility* plays a determining role in how coaching interactions can lead to EL, *Accessibility* enabled coaching interactions to happen in the first place.

(1) Business Support

Business Support was provided in the form of advice for incubatees in meetings with a business coach. For example, building Business Model Canvas or operational business advice were subject to these meetings. Three mandatory meetings were held in the beginning of the incubation process, afterwards further coaching was provided on the incubatees' demand as by then "they should be confident enough to know what they need" (M.1). This is an example of how *Flexibility* influenced the way support was provided. The business advisor did not set specific rules about the manner or frequency the support should be given but rather gave the entrepreneur room to gain clarity on his/her needs and to then decide autonomously. This is in line with the logic of Kolb's (1984) learning cycle: as most incubatees started their entrepreneurial endeavor when entering VentureLab, the incubator facilitated the room for the entrepreneur to experience how it is to start up a venture (*experience stage*). During the initial phase of the experience, the incubatees got input for their venture in three igniting coaching sessions. Following Baron's (2006) theory, the knowledge and information relevant for the venture creation gained from the incubator can enhance the individual's ability to identify opportunities. After the first period, the business advisors did not interfere further, leaving it up to the individual entrepreneur to initiate a coaching session. According to Rice (2002), this interaction between the incubator and the incubatee classifies as *reactive* (entrepreneur-driven) and *episodic* (limited in duration). The latter suggests an exploitative learning approach (Patton & Marlow, 2011). By behaving reactively, the incubator gave the incubatees time to reflect upon their entrepreneurial pursuit and the information they gained until this point in time as well as to think their current situation through, which corresponds with the subsequent *reflecting* and *thinking*

stages of Kolb's (1984) learning cycle. The incubatees were not only given the responsibility to decide but were also trusted to know at which point in time they needed what kind of help. Hence, VentureLab enhanced the incubatees' own authority by providing advice on demand, meaning in a flexible manner. An increased feeling of responsibility offered room for the individual to take action and thus, explore what is unknown to the entrepreneur so far: "You get so much responsibility that you learn to handle because you basically have to become a master at everything..." (I.15) which corresponds to the remaining stage of Kolb's (1984) model: *action stage*. This is in line with several authors (Cope & Watts, 2000; Kolb, 1984; Smilor, 1997) who highlight the effectiveness of drawing learnings from doing. More precisely, the incubatees were enhanced to take a discovery approach as defined by other authors (Deakins & Freel, 1998; Young & Sexton, 1997). This corresponds with an explorative learning approach (Cohen & Levinthal, 1990). Hence, the coaching interactions determined by *Flexibility* led to learning through both, exploitation of the existing as well as exploration of the novel in order to generate EL.

When an incubatee initiated a coaching session, advice was given carefully. The business coaches had "...been a bit careful about providing that type of concrete advice in some sense. They don't want to steer too much" (I.6). Instead, the incubator challenged the incubatees by "not giving [them] the answers, but asking the questions that [they] discuss[ed them]selves, which then led to ... realizing the importance of various aspects" (I.4). Again, *Flexibility* determined the interaction between incubator and incubatee. VentureLab did not push the entrepreneurs towards a certain direction but stimulated the incubatees' thoughts. The fact that the incubator asked questions rather than giving answers is in line with reflection being an essential part of the learning process according to Kolb (1984). Gibb (1993) agrees that an approach which allows the individuals who learn to see things through by themselves fosters the EL environment. The intention behind the incubator's approach was to enable the entrepreneurs to "work more into their own responsibility" (M.1) hence, the support was provided in a loose and flexible manner giving guidance solely when needed. This approach implies a low degree of intervention from behalf of the incubator which has been described as a *laissez-faire* approach by Bergek and Norman (2008). By giving advice carefully and rather questioning actions instead of proposing them, the incubator enables the incubatees to take ownership and made room for their own development:

We had one meeting with Elisabeth where it was all four of us. We asked Elisabeth to join us to and it ended up with the four of us talking for like 45 minutes. We got through, just by having Elizabeth ask one question. And we were like ‘Oh, nice. Thanks.’ And she went ‘I didn't say anything’. (I.13)

The incubatees are thus taking action for their venture triggered by coaching interactions which confirms Gibb (2002) describing the need to create and reinforce the sense of ownership to foster entrepreneurship. In line with the theory of *learning by doing* (Cope & Watts, 2000; Gibb, 1993; Gibb, 1997) the incubatees were given the chance to take ownership for their venture and could experience learning by taking action on real-life issues; hence, the *Flexibility*-driven manner of coaching allowed for learning *through* entrepreneurship.

Furthermore, the findings showed that certain coaching sessions were key to some entrepreneurs. For example, when the business coach asked them whether they had considered talking to customers, the entrepreneurs reflected on their past actions, realized what they had missed and adapted strategy applying their pivoting capabilities:

...she sort of broadened our mind and said that maybe we should talk to the customers first and then find out what they want and then build that instead. So that's basically how we work now instead (I.15)

This confirms Levinthal (1996) who states that entrepreneurs adapt to their environment taking their learning experience into consideration while changing behaviors. In this example, the incubatees tried out a new approach and had been successful in applying it. According to Johannisson, Landström and Rosenberg (1998) this can be referred to as trial and error behavior.

The contextual factors of both *Accessibility* and *Flexibility* determine the relationship between the incubatees and the incubator staff. The employees were perceived as approachable when needed (“So, you can if you do need to talk to them about something you can do that.”, I.6). Particularly when being a student, the findings show that VentureLab had been very understanding of the current situation and duties of the incubatees adapting the program flexibly to their needs:

I think that the whole convenience thing is quite relevant actually. If you are a

student, you need sort of, to work with people who understand that and understand that there's some limitations to students running start-ups. (I.6)

The incubatees felt understood and described VentureLab as the ideal place to start their entrepreneurial career (“I think it is a very good entrance for students.”, I.10) which is in line with the incubator’s intention to design the incubation program accordingly: “We are trying to adopt to their needs rather than the opposite” (M.1). On the one hand, VentureLab adapts the flexible program to the time availability of the individuals. On the other hand, the program content is defined by the incubatees’ demand (e.g. through asking for advice in the field of necessity). This is in line with Gibb (1993; 2002) indicating to focus on the learning needs of the person who learns in the field of entrepreneurship in order to create an entrepreneurial climate. The incubator provided the entrepreneurs with an easy access (*Accessibility*) to tailored advice (*Flexibility*) helping them to start their entrepreneurial career, extend their entrepreneurial competencies in the areas where they needed it the most and to thus, learn from their direct experience during the venture creation process.

(2) Psychological Support

The understanding of the incubator for incubatees exceeded business or learning related needs. The incubatees -mostly full-time students- experienced stressful situations. The work at VentureLab was based on entirely voluntary work in addition to the responsibility for their studies. Hence, the incubatees showed an increasing need for informal advice on a more personal level:

And a little bit how to deal with some of the stress that maybe comes with [enterprising and studying at the same time]. Things like limited sleep and things like that can result from it. And they gave, I think some good advice on that. (I.6)

Rice (2002) highlights the importance of the incubatees’ willingness in order for co-production, hence learning through interaction, to happen. Thus, the incubatees needed to agree to receiving such support from the incubator. *Accessibility* translated into a close relationship between the incubator and the incubatees. Findings showed that the incubatees acknowledged VentureLab’s psychological support (“they're like doing their best to encourage you in any ... way”, I.4) which made them feel helped (“he has

listened to our ideas and been very supportive around that”, I.1). The incubator continuously motivated the incubatees (“...the most helpful personally for me is that [VentureLab] keeps me motivated to come to work every day...”, I.9) and encouraged them to progress (“[VentureLab] has been essential to get to where we are today. I think we would have stopped with this project months ago...”, I.13). The positive attitude of the incubator staff resonated with the incubatees allowing them to continue in their pursuing and to believe in favorable outcomes. This is in line with Krueger and Brazeal’s (1994) theory of opportunity recognition relating positively with optimism: the incubatees’ competence in being alert to and thus in recognizing business opportunities was fostered. Additionally, as the findings had shown encouragement from the incubator increased the incubatees’ determination to proceed with their projects making their business creation seem more feasible. This is in line with Gatewood (1993) stating that the perception of feasibility of an idea can be influenced by -in this case positive- feedback. Increasing the perceived feasibility of the start-up influences the overall entrepreneurial intention and motivation of the individual (Farmer, Yao & Kung–Mcintyre, 2011; Krueger, Reilly & Carsrud, 2000; Rae & Carswell, 2001). By strengthening the entrepreneur’s determination in pursuing a business idea, VentureLab enhanced competencies relevant for improved effectiveness in new venture creation such as motivation and perseverance (Jones & Penaluna, 2013; Morris, Kuratko & Cornwall, 2013): “I developed a lot at VentureLab, but also just creating something and to not lose faith...” (I.11).

In addition to strengthening perseverance, this quote also touches upon the entrepreneur’s creation of something new. At VentureLab, incubatees are given freedom in their actions (“You can come here, and then you can develop your idea in your own pace.”, I.1) and are not put under pressure (“I think they just don't want to stress, like the really young companies, they want to give everybody a chance to try their projects“, I.4). Hence, the environment consists of loose structures determined by *Flexibility* (“...it was also like ‘are there no rules?’ and it felt like this wasn’t any organized, it was like come and go and we take in everyone.”, I.11) where entrepreneurs can test their ideas following their own rules (“Because you can really come here with any idea, and you can try what it is like to run your own company. Let's see if it's anything for you at all.”, I.1). In general, the incubator seeks to create a safe and accessible laboratory for young entrepreneurs (“They can get ... everything to make it easy for them to try it without really risking that much”, M.1). This type of internal environment corresponds with Gibb’s

(1993) description of the components of an entrepreneurial climate. There are two important aspects resulting from the environment determined by freedom and no pressure (*Flexibility*) as well as access to resources and advice (*Accessibility*): the incubatees can test their ideas, thus (1) experimentation, and do not have to overthink potential risks, thus (2) perception of risk.

(1) Experimentation corresponds with an explorative approach of transforming experience into knowledge (Cohen & Levinthal, 1990; March 1991) and allows the incubatees to gain experience through discovery and trial and error (Deakins & Freel, 1998; Young & Sexton, 1997). Findings show that this approach had proven to be useful as every error encountered resulted in a new lesson learnt: “You definitely learn more from your failures than from your success, at least that's my take away from it” (I.14). VentureLab giving entrepreneurs the freedom to act autonomously, allows them to make mistakes and thereby learn from experimenting which are relevant elements of an EL environment (Gibb, 1993; Gibb, 2002). Findings show that pivoting a business idea was a common way to experiment and discover new opportunities: several entrepreneurs took a chance to try out (and potentially fail with) an adapted business idea. Applying the logic of Ronstadt (1988) who argues that the mere experience of starting up a venture enables the entrepreneur to recognize opportunities which he/she would not have been able to see beforehand, it can be derived that trying an idea in a safe space generates learnings through experience which to a later point in time can enable the entrepreneur to recognize opportunities he/she might not have seen without the prior experience. These adaptations to changes in the market or environment led to learning experiences connected to business modeling and knowledge as well as sales capabilities and pitching skills. The possibility to experiment enhanced by the academic context in terms of freedom in and no pressure on actions as well as access to relevant resources and advice fostered the entrepreneurs’ ability in both overcoming liabilities of newness and recognizing business opportunities.

(2) The perception of risk influences the entrepreneurs’ ability to recognize and realize opportunities (e.g. perceiving high levels of risk may hinder the entrepreneur to take action) (Stewart & Roth, 2001). VentureLab facilitates an environment of low risk (“...it's kind of a safe space, because you don't risk anything really because if it doesn't work out, it doesn't work out, you can go back to your studies.”, I.10) which provides incubatees with the possibility to dare more than they would outside the incubator (e.g. strong pivoting), hence the incubatees can act more risk-taking. After taking a risky

decision and succeeding, entrepreneurs can perceive their venture as more feasible and might, due to the gained knowledge through experience, be more likely to take a higher risk next time. As highlighted before, an decrease in the perceived risk can allow for recognizing fruitful opportunities (Stewart & Roth, 2011) and an increase in the perceived feasibility of the idea elevates the entrepreneur's intention and motivation for the venture (Farmer, Yao & Kung–Mcintyre, 2011; Krueger, Reilly & Carsrud, 2000; Rae & Carswell, 2001) and hence, helps coping with liabilities of newness.

Sharing a physical workspace such as the incubator office enables interaction for business as well as psychological support relating to *Accessibility*. The incubator team can easily approach entrepreneurs directly. According to our findings, the atmosphere at the incubator office was described as informal (“I think it's a fairly casual environment here”, I.6) and rather laid back (“VentureLab is a little bit more chilled”, I.1) allowing for great *Flexibility* for the entrepreneurs. This environment caters to feeling at ease when interacting and enhances relationship building between the incubator staff and incubatees. Through, on one the hand, continuously encouraging incubatees but, on the other hand, also asking ad hoc questions the incubator team can strengthen their relationship and build trust. Taking the social capital perspective, trusting - along with knowing and identifying with - someone is one of the factors allowing for effective and efficient collaboration (Bolino, Turnley & Bloodgood, 2002). Comparing the findings to theory (Rice, 2002; Scillitoe & Chakrabarti, 2010), it can be derived that the proactive interactions in this loose, but supporting environment enable entrepreneurs to learn through building (*exploring*) and leveraging (*exploiting*) their social capital, hence to increase their effectiveness in coping with liabilities of newness. This approach is supported by Hughes, Hughes & Morgan (2007) who highlight the importance of balancing explorative and exploitative activities. VentureLab providing coaching through interactions in defined business sessions as well as continuous encouragement follows Hughes, Hughes & Morgan (2007) logic.

Concluding the types of supports offered by VentureLab, *Flexibility* is the central contextual factor among which support is provided to the incubatees while *Accessibility* minimizes potential holdbacks a young entrepreneur could experience and enables continuous encouragement along the venture creation process. The context of academia results in a low level of pressure and a low level of intervention from the incubator and turns the own venture creation into an attainable goal with the necessary resources and advice at hand. Providing room

for the individual to reflect upon experiences and to think upcoming actions through enhances the entrepreneur's sense of ownership, proactive action-taking and experimenting which creates learning experiences *through* entrepreneurship.

5.3 Network

Network can be associated with how the incubatees are connected with each other and the outside world (Bergek & Norman, 2008) and is found to be a central element of VentureLab. As the bridge between incubatees and their environment, VentureLab facilitates two types of networks: internal and external networks. This study found that EL is mainly influenced by the internal network in the academic context of VentureLab, therefore, the external network will not be taken into consideration within the scope of this analysis.

Internal Network

The findings of our study show that the internal network of the UI is an essential element: "...just the whole atmosphere of working with, I guess, a like-minded people, I think that's most important to me..." (I.9). Literature states that internal networks are the most important incubator support system as they are especially valuable to increase social and economic opportunities of entrepreneurs (Bøllingtoft & Ulhøi, 2005). In the academic context, the internal network is found to play a key role in contributing to EL as it is enhanced through *Inclusiveness* and the prevailing *Sense of Community*.

Inclusiveness is a guiding principle for VentureLab which allows them to take in numerous projects and determines their selection criteria to being entrepreneur-focused as opposed to idea-focused:

We try to bring in as many as possible. We do not see it as a purpose for us to be exclusive. It is better to help as many as possible and then they can determine themselves how much help they want... (M.1).

Inclusiveness means for VentureLab to take in a numerous but also various entrepreneurs as "they want to give everybody a chance to try their projects..." (I.4). This is important, as it

allows for *symbiosis* and *complementarity*, which should be rule for incubators' selection strategy (Bergek & Norman, 2008). VentureLab enhances diversity among the incubatees by focusing on the individuals:

We also try to look into the diversity of the incubator. It should be a diverse place because then people have the most use of each other. This can be gender, nationality, faculty...we try to get a big spread on that one (M.1).

Diversity in entrepreneurs' backgrounds and business ideas can stimulate creativity as it allows for associating more linkages, which can provide a basis for learning in uncertain situations (Cohen & Levinthal, 1990). It has been found that the environment at VentureLab stimulated the entrepreneurs to acquire new knowledge from other ventures which they applied in their own context. In relation to this it has been mentioned that "when you understand [the others' ideas], you can see the beauty of things about their innovation. And when you see that you can pick up some parts of it and attach it on your own idea." (I.5). This coheres with imitative behavior, where entrepreneurs observe other successful firms and adopt those practices which are assumed to be key to the observed success (Johannisson, Landström & Rosenberg, 1998).

On that account, it has been found that ventures that are assumed to be successful are valued as a source for feedback and help. Confirming Rae and Carswell (2001) entrepreneurs learned and sought advice from others who they perceived to have superior entrepreneurial competencies. In this context it has been highlighted: "we knew that there were other entrepreneurs of course around us, so we asked for help from them, because they were more experienced." (I.4) "...we asked Renjer who's been in a lot of negotiations how they manage it. They helped us a bit with that." (I.15). Moreover, entrepreneurs were found to learn through observations and imitation of *role model behavior* (Bandura, 1977): "Renjer and Skøn, they worked a lot with sales, they worked with product sales, just seeing them call, call, call motivates you to call as well." (I.13).

Furthermore, entrepreneurs in VentureLab benefit through the UI's inclusiveness as it allows diverse individuals to receive complementary knowledge from each other: "...I have quite specific knowledge about bookkeeping stuff, and I regularly help people out with that." (I.9) and "...we asked Renjer who's been in a lot of negotiations how they manage it. They helped us a bit with that." (I.15).

This is moreover found to enhance the generation for new potential business ideas: "...when I talk to guys like HomePal or to some of the other tech companies here that it doesn't seem so unrealistic anymore, maybe to have one day a more techie idea..."(I.9). Seeing other entrepreneurs developing ventures in different business areas can be inspiring for entrepreneurial opportunities as has been stated "... [Venture Lab] broadened my horizon regarding other areas of business..." (I.8). Also, exchanging ideas with other peers has led to emerging opportunities and new ventures creation in novel co-founding team constellations "...I started talking to him and bit, and then we thought 'this is interesting, oh, this is interesting'. And then we merged everything. And then we were like 'Oh, we have an idea here!'" (I.10).

Underlying all social interactions, it is key that incubatees identify with one another and trust each other to voluntarily exchange knowledge (Bolino, Turnley & Bloodgood, 2002; Bøllingtoft & Uihøi, 2005; Sullivan, 2000). Due to the fact that the incubatees, on the one hand, are selected based on their determination and background instead of the potential profitability of their idea, and on the other hand, operate in distinct industries, there is no rivalry amongst the incubatees:

But it's more the spirit. It's kind of the network, but it's the people around you are in a similar situation. They want to make something themselves. So, we are facing the same problems and you have similar issues. And you just want to help each other out. (I.4)

Moreover, as the entrepreneurs in VentureLab are mostly in the same situation being a. a student or having graduated recently and b. in an early stage of their venture development, lets them identify with one another: "I think that brings familiarity, to some sense, because you feel like 'oh, they're also just students'." (I.10).

Accordingly, the incubatees were found to encounter similar challenges, which bonds them and ultimately brings us back to the prevailing *Sense of Community*. Sharing challenges with each other is an established practice at VentureLab which is enforced by the contextual factor *Sense of Community*: "...if we had some problems, we could come up with questions, and then people would help us. So, it's, I think it's a really nice, like small forum for sharing your problems..." (I.4). Discussions with peers after e.g. failures are found to correlate positively in helping an entrepreneur reflect upon and recover from the failure "And you can always like if you're

struggling with something you can just talk to them and they will help you out, cool you down and guide you on the right way.” (I.5) which corresponds with Cope (2011). Respectively, incubatees feel safe in the VentureLab environment for not being judged for their ideas: “Meeting new companies and try to understand them. And with that, kind of pushing each other, instead of like thinking that's such a bad idea” (I.5). This way the incubatees can further develop trust to their peers and at the same time feel confident about themselves and their idea. Confidence can be related to perceived self-efficacy which stimulates their drive in engaging with entrepreneurial activities (Carter et al. 2003).

Bergek and Norman (2008) propose under entrepreneur-focused selection a. picking-the-winners and b. survival-of-the-fittest approaches. VentureLab chooses to follow the “survival-of-the-most-determined” (M.1) which can be related back to the academic context of *Inclusiveness*. This determination is essential as

Even if you don't get any knowledge from the other entrepreneurs in the network, you can be helped when you have a down and you lose hope and determination to see others that work hard and the determination they have can influence you as well with a positive attitude. (M.1).

Determination is a critical characteristic when it comes to the ability of coping with liability of newness. New venture creation requires repeated attempts and therefore, the effort and time involved should be based on determination (Carter et al. 2003) as the perceived feasibility of business has a significant impact on the entrepreneur's choice to continue (Farmer, Yao & Kung-Mcintyre, 2011). Thus, entrepreneurs' perseverance is a critical characteristic to being able to cope with liabilities of newness: “I developed a lot at Venture Lab, by just creating something and to not lose faith...” (I.11). Also, the *Sense of Community* has a driving effect on the entrepreneurs' perseverance which additionally positively correlates to opportunity recognition. Seeing that other companies succeed, is an important motivator for the entrepreneurs and makes them believe in their ideas: “...learning to take a lot of responsibility. You learn being creative and finding new solutions because that's what we have to do to stay alive.” (I.15).

Learning from experience and adjusting behavior accordingly is key to EL. Entrepreneurs are assumed to learn how to react to changes and learn from challenges encountered (Deakins & Freel, 1998). For this adaptation process, they can either observe or engage in conscious trial (Johannisson, Landström & Rosenberg, 1998). Entrepreneurs in VentureLab are found to apply both strategies. Particularly imitative behavior becomes prevalent:

I guess, maybe one thing you can see here is when start-ups pivot. They realize that it's not the optimal way of doing it. And then they go back a bit and change their business model. Seeing these examples, makes you realize that it is one of those parts you should think about and consider carefully. (1.6)

Therewith, incubatees develop their pivoting ability and business modelling skills which are critical as entrepreneurs have to take on an adaptive role to adjust to changing environments and their learning experience (Levinthal, 1996).

6 Conclusion

6.1 Theoretical Implication

The aim of this study was to explore how support services of a UI can contribute to EL and specifically how the academic context shapes the way EL of incubatees occurs. This study described and discussed in detail what role certain contextual factors play in facilitating the incubator support, thus in the incubatees' learning experience. Following, these insights and the knowledge gained throughout this research will be concluded.

Firstly, the overarching contribution of this research to the field of incubators is the prove that and insight how the academic context contributes to the EL of incubatees. Solely by taking the incubator's context into consideration the phenomenon can be fully understood. Whereas previous studies mainly focused on EL inside the commercial context (e.g. Fang, Tsai & Lin, 2011; Scillitoe & Chakrabarti, 2010; Sudana et al. 2019), this research complements and broadens the view on EL in the more suitable context of academia. More precisely, the contribution to incubator literature lies within this study having been able to display an authentic presentation of incubatees' experiential learning while taking contextual factors into account. The contribution to research of this study is visually reflected in our grounded theory model. Moreover, this framework adds value to research by providing differentiated insights into how the incubator support services network and coaching contribute to EL in the context of a UI.

Pointing out one of the most interesting findings concerning the contribution to EL in a UI context, we refer to the important role of internal networks which is enhanced by *Inclusiveness* and *Sense of Community*. *Inclusiveness* describes the open and accepting attitudes towards individuals and their ideas as well as the value-adding diversity inside the incubator. *Sense of Community* comprises the incubatees' feeling of belonging to entrepreneurs in similar situations and the psychological support they experience from one another. Through direct interactions with peers such as exchanging feedback or sharing challenges, the incubatees acquire new knowledge from other ventures and apply it to their own context. The peer-to-peer relations are determined by trust, encouragement and mutual inspiration. Seeing others succeed for instance increases their determination which is an important catalyzer for EL. Overall, peer interaction is a major source of EL and the academic context strengthens and enforces the effect of that.

Further, this study contributes insights into the role of coaching along the learning experience of creating a venture in a UI. The context defines how interactions between the incubator and its incubatees lead to EL: *Flexibility* determined a low level of pressure and a laissez-faire degree of intervention while *Accessibility* positively effects the perceived and practical feasibility of the incubatees concerning their entrepreneurial endeavors. Not steering, but rather by enhancing the entrepreneur's sense of ownership showed the biggest effect on their learning. The contextual factors contributed to igniting both explorative (e.g. experimentation) and exploitative (e.g. leveraging social capital) learning activities of incubatees.

Moreover, this study provided more clarifying details on how, additionally to business coaching, the UI staff provides psychological support. The *Accessibility* of staff for incubatees translated into trusting relationships and enabled the incubator to impact the entrepreneurs' motivation. Thus, the incubatees' action taking and perseverance in their entrepreneurial pursuit were strongly enhanced. By giving explanation on how EL through coaching on a psychological level is influenced by contextual factors, this study showed the importance and value of informal interactions for continuous support.

Lastly, this research confirms that while information and tools can be learned through workshops, necessary knowledge concerning the exploitation of entrepreneurial opportunities and coping with liabilities of newness can only be learned by doing (Cope & Watts, 2000; Shane, 2003). Hence, workshops are found to be less effective in facilitating EL. Its effect, however, can be enhanced by integrating a *learning by doing* approach.

6.2 Managerial Implications

We can conclude from this study that particularly the internal environment of an incubator impacts the effectiveness of providing learning experiences decisively. Therefore, the incubator management should be aware of the potential actions and corresponding effects on the incubatees' EL, especially in the case of managing a UI. Based on this study's findings, the following specific implications for practitioners have been derived.

Firstly, this study shows the importance of identifying the entrepreneurs' learning needs in order to generate beneficial learning outcomes. If EL is the main objective of the incubator, it is

critical to identify the areas in which the entrepreneur currently lacks competencies or skills in order to facilitate the support services accordingly. This study demonstrates an example of how the learning needs of entrepreneurs in a UI can be catered. In more detail, the coaching interactions need to be designed in order to complement and broaden the individual's current level of entrepreneurial knowledge. For instance, the business advisor employed by the incubator should collect insights about the existing entrepreneurial competencies of the individual. Another example to adapt to the entrepreneur's learning needs is to provide the incubatee with room for own development and autonomous action taking. Thus, the incubator should take a *laissez-faire* attitude when interacting with the incubatee to enhance action taking and therefore, *learning by doing*.

Secondly, internal networks in terms of support among peers are of substantial for the incubatees' EL. Therefore, this study implicates that the impact of peer-to-peer interaction has to be taken into strong consideration and should not be underestimated when designing the incubator support services. This research clearly identified the strong relation between the internal atmosphere of the incubator and the incubatees' effectiveness of learning. The incubator, however, can exert influence and stimulate an entrepreneurial climate by adapting the selection strategy accordingly. An example would be to apply entry criteria focusing on the entrepreneur as opposed to on the business idea. By selecting the most determined entrepreneurs, only highly motivated people will enter the incubation process. Our research showed that these entrepreneurs are effective in also motivating their peers and therefore, can strengthen one another perseverance either by active encouragement or by serving as a good example. Another suggestion would be a selection focusing on diversity, as according to Cohen and Levinthal (1990) diverse backgrounds can enhance creativity. This holds high potential for synergies among incubatees which can result in effective learning experiences as assumed similarly by MacMillan (1986) and McGrath (1999). Therefore, the incubator can increase the potential of EL among incubatees by establishing the selection criteria accordingly.

6.3 Research Limitations

This study identifies several limitations.

Firstly, as single case studies restrict generalizability, the outcomes gathered regarding the contextual factors may differ across different incubator contexts. Depending on the incubator's goals, the contextual factors may vary, as support services will be designed and structured accordingly. The case incubator is operating in an academic context and aims to empower students to adopt an entrepreneurial mindset and ultimately, to engage in entrepreneurial activities. Hence, its intentions are guided by an educational approach and therefore, its support services may be structured with the intention to facilitate EL as opposed to a commercially-oriented incubator. The findings of this study are limited to university with similar objectives and support elements as applicable to the UI subject to this research. It could have been interesting to additionally investigate a commercial incubator for a comparison to see whether similarities or differences are present between the two. However, time and resource constraints prohibited the conducting of a multiple case study.

Secondly, EL is an unconscious process resulting in entrepreneurs facing difficulties expressing them. Thus, entrepreneurs may have encountered difficulties in articulating their learnings as they may have not reflected on them yet. Therefore, it could have been of value to interview alumni of the UI with the assumption that they had more time to reflect on their learnings. Nevertheless, due to accessibility, current incubatees have been chosen as the sample group for this study. Moreover, learning is an ongoing process with varying outcomes during different points in time and therefore, retrospective asking through interviews only covers one moment in time.

Thirdly, EL is an experiential process influenced by prior knowledge and experience. Therefore, depending on entrepreneurs' prior experience, their individual EL process may vary. Our findings indeed show that experiences do impact how certain support services influence the individual EL process and therefore, it can be argued that not taking this information into consideration is a limitation. However, due to time and resource constraints, the role of individuals' background could not be studied more in detail.

6.4 Future Research

Based on the general findings and limitations of this research, further research could be conducted in the following areas:

Firstly, this qualitative exploratory research has been conducted to a UI and hence researched a particular phenomenon at a single point in time. It provides a snapshot view of a particular situation at the incubator and hence, a longitudinal study of this phenomenon in the context of different incubators could further increase reliability and generalizability of this phenomenon. It could be interesting to additionally investigate a commercial incubator for comparison and to see whether similarities or differences are present between the facilitating factors of EL.

Secondly, as this study has investigated EL from the perspective of current incubatees, it could be valuable to investigate this phenomenon from an incubator alumni perspective to get reflective feedback as then the entrepreneurs would have had more time to reflect on their learning.

Thirdly, future research would benefit from in depth research regarding the role of entrepreneurs' prior experience and how it influences their EL process in regard to the support services offered. This study found that entrepreneurs' educational and work background as well as family situation, hence overall prior experience has an impact on how their EL takes place. Not all contextual factors have the same impact on each entrepreneur's learning process. In this context, it could be interesting to research how support services can be most effectively designed based on entrepreneurs' experience and how the needs for support services differ given the entrepreneurs' experience.

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Appendix A: Interview Guide

Interview Guide for VentureLab Incubatee

Part 1: Introduction

- Explain the purpose of the interview.
- Explain the concepts: entrepreneurial learning and incubators.
- Describe the interview process.
- Describe the process after interview of transcribing and coding.
- Ask for consent about recording and revealing name in report.
- Inform about possibility to refuse questions, receive transcripts for validation and receive report.

Part 2: General Information and Background

- *Observation:* Gender.
- Demographics: Age, nationality
- Education: National background, language

Background Entrepreneur

- 2.1 What is your background?
 - 2.1.1 Educational?
 - 2.1.1.1 Have you received any entrepreneurial education?
 - 2.1.2 Professional?
 - 2.1.2.1 Have you been an entrepreneur before your idea?

Background Idea

- 2.2 What is your project about?
- 2.3 What is your role?
- 2.4 How far are you in the process of creating your venture?
- 2.5 What motivated you to pursue this idea?
- 2.6 How do you think does your past experience influence your time at VentureLab?

Part 3: Incubation at Venture Lab

- 3.1 At what stage were you when you joined VentureLab?
- 3.2 When did you enter VentureLab?
- 3.3 What are your reasons for joining an incubator?
 - 3.3.1 What are your reasons for joining this specific incubator? Why University Incubator?
 - 3.3.2 What do you think are the peculiarities of VentureLab compared to other incubators?

3.3.3 What were your expectations of VentureLab? What did you think you needed to learn beforehand?

3.4 What kind of support is offered by VentureLab?

3.5 Which of those have you received so far?

3.5.1 Workshops

3.5.1.1 Do you know of any workshops / trainings that are offered?

3.5.1.2 Have you participated in any workshops / trainings?

3.5.1.3 Were any methods/tools introduced? Which ones were most valuable?

3.5.1.4 Can you remember one workshop / training that was really valuable / not valuable at all? Why?

3.5.1.5 What are your key learnings from the workshops?

3.5.1.6 Do any of the learnings from those workshops / training still apply to your venture / project?

3.5.1.7 Based on the above, what would you improve? What do you wish from VentureLab?

3.5.2 Coaching

3.5.2.1 What did you need most help with when you joined VentureLab? Did that change? If yes, how?

3.5.2.2 What are your key learnings from coaching?

3.5.2.3 Do you think have access to the right mentors? Did that change? If yes, how?

3.5.2.4 Were the coaching sessions mandatory?

3.5.2.5 Can you remember a session that was really valuable / not valuable at all? Why was that?

3.5.2.6 Do you have regular contact with your mentor?

3.5.2.7 Do any of the learnings from those sessions still apply to your venture / project?

3.5.2.8 Based on the above, what would you improve? What do you wish from VentureLab?

3.5.3 Networking

3.5.3.1 Which role does networking play during your time at VentureLab?

3.5.3.2 How engaged are you with the entrepreneurial community at VentureLab?

3.5.3.3 Did you learn from your peers? If yes, what?

3.5.3.4 Do any of the learnings from those workshops / training still apply to your venture / project?

3.5.3.5 How would you assess the Thursday Meetings? Did you take any learnings from those meetings?

3.5.3.6 Based on the above, what would you improve? What do you wish from VentureLab?

3.6 Which main learnings from your experience at VentureLab do you apply to your project?

3.7 Which elements of the program have proven especially useful in terms of your learning process and the venture development?

3.7.1 Personal learnings?

3.7.2 Professional learnings?

3.8 Reflecting on the just said, what would you improve? What did you miss?

3.9 Reflecting further: Which three key takeaways from your experience at VentureLab will stick with you

Part 4: Closure

4.1 Would you like to share anything else about entrepreneurial learning or VentureLab?

Appendix B: Extended Quotes Tables

Learning Outcome

Representative Quotes	2nd Order Theme
<p>“I developed a lot at VentureLab, but also just creating something and to not lose faith...” (I.11)</p> <p>“I think they just encouraged us to be a bit stronger and better.” (I.4)</p> <p>“And a little bit how to deal with some of the stress that may be come with that. Things like limited sleep and things like that can result from it. And they gave, I think some good advice on that.” (I.6)</p> <p>“...certain things you shouldn't undercut to make everything work in terms of workload, that it's important to keep it all fairly balanced, and so forth.” (I.6)</p> <p>“...learning to take a lot of responsibility. You learn being creative and finding new solutions because that's what we have to do to stay alive.” (I.15)</p>	Perseverance
<p>“Not directly, but they have given us like, tips about our selling and given us customer tips that we have been following up afterwards.” (I.1)</p> <p>“So, among the first things that we learned when we got here was basically always talk to customers” (I.2)</p> <p>“And because of that, we learned a lot about trying to be better. And, yes, go out there and try to sell, be brave about it. [...] That was very helpful for us. Before we went to that program, we didn't talk about selling. And then we did” (I.5)</p> <p>“To make it real, she said you need to contact customers. And that is what we started to do then.” (I.5)</p> <p>“Don't start a product before you have talked to the customers, you can actually sell a product and you don't have to have developed it yet.” (I.9)</p> <p>“...she sort of broadened our mind and said that maybe we should talk to the customers first and then find out what they want and then build that instead. So that's basically how we work now instead” (I.12)</p> <p>“She tried to push us more. But we were product-focused in the beginning. But now we are less product-focused on more sales-focused.” (I.13)</p> <p>“I really like to highlight and also the part with customer relationship and looking what your customer wants. I think that is probably how you should build your business” (I.15)</p>	Sales Capability
<p>“...maybe it's better to take a few steps back and go to your team and develop your product a little bit more before you put it out to the market, as like most of the companies doing here.” (I.1)</p> <p>“Shaping your idea, I think is massive summary of my monologue. The fact that it doesn't really matter what your business is about. A fact is you need customers</p>	Pivoting Capability

<p>who want to pay, you need a product a, you know, something, you're delivering them, you need to give some sort of value” (I.2)</p> <p>“our product was bad back then. We had this kind of like, boxed meat. It was not a very smart idea. But we didn't know. .” (I.4)</p> <p>“when you understand [the others’ ideas], you can see the beauty of things about their innovation. And when you see that you can pick up some parts of it and attach it on your own idea.” (I.5)”</p> <p>“...a lesson I learned is the ‘kill your darlings aspect’.” (I.11)</p> <p>“...there're a lot of things that we apply that Elizabeth said [...] that we apply today...because we have a different focus now as well, I think” (I.13)</p> <p>“...we had to pivot a lot, we started with the application for housing associations then we did white labeling for real estate companies.” (I.13)</p> <p>“I focused too much on what was outside me rather than what I actually liked. That's when I decided to pivot my idea and just focus on education.” (I.14)</p>	
<p>“We were actually going to pitch to the investors. We were very nervous about that. How do you pitch for X amount of money? And what should we say? And there were some people out there who helped us a lot. This is what you must say, this is standard. If you don't say this, you're not gonna fulfill. So that helped us a lot.”(I.5)</p> <p>“And yeah, something about I had a video as well, they [at the pitching training] wanted me to change a little bit of the content of that, and the emphasis of that, which was very, I think, very useful feedback.”(I.6)</p> <p>“... when you actually go to pitch, the way you say things and the way you explain things... But other people are like ‘What are you saying? Like, what?’ And that realization that ‘oh, I have to change the way I'm talking to people when they're not within the field’, that was an aha-moment for me, realizing I have to adapt to the audience.” (I.10)</p> <p>“...the insight [after a pitching workshop] that it's more than just a product, that it’s the project, that we have to present it” (I.11)</p> <p>“We were pitching to different people. That was cool. I think that was the day that I most get something out of.” (I.14)</p>	Pitching Skills
<p>“how do you create an AB? What is the actual process? What was that? What do you think? What do you need to think about, you know, for taxes and stuff? It all seems like a scary world. But essentially, it's always the same, you know, and we had Renjer here, so we could ask them. ”(I.2)</p> <p>“I learned, like, some communication things, like some help if I'm listening to people how they're talking in the phone, for example.”(I.4)</p> <p>“I also have learned like just some web design things or design things. Branding things, social media marketing things. What kind of post you should write, what kind of text you should write... “(I.7)</p> <p>“Seeing that people have different expertise and they can help you with different things. For example, just last week, the guys from HomePal helped me declaring taxes, all that kind of things where the employees from VentureLab cannot help...” (I.14)</p> <p>“I did not have it in mind that it needed the [commercialization] part when I applied. But they've come to the realization during my time at VentureLab.” (I.11)</p>	Business Knowledge

<p>“We've gone through different payment models, that was something that we got assistance with actually.” (I.2)</p> <p>“We sat here for a meeting in this room actually. And she, we did this model, the business model canvas, for example. And she helped us by getting our company through the steps.” (I.5)</p> <p>“I guess, maybe one thing you can see here is when a start-up pivots, so there are a few examples of people come in here with an idea and what they have an idea of how to execute it. But then they realize that it's not the optimal way of doing it. And then they go back a bit and change their business model. Seeing these examples, makes you realize that it is one of those parts you should think about and consider carefully.” (I.6)</p> <p>“...she helped us more realize how you built business or how you should approach it” (I.15)</p>	<p>Business Modeling Skills</p>
<p>“...there are a lot of nice people here, people that are doing their thing, and you can talk with them and get ideas of how you can change your business model to make it better.” (I.1)</p> <p>“Just brainstorming so he was doing another project. We started to talk about his project and how he wants to fuel his system with a kind of energy source. So we were just talking about it and researching. And it just came up.”(I.7)</p> <p>“...[Venture Lab] broadened my horizon, I would say first of all, regarding other areas of business...” (I.9)</p> <p>“...when I talk to guys like HomePal or to some of the other tech companies here that it doesn't seem so unrealistic anymore, maybe to have one day a more techie idea...” (I.9)</p> <p>“...I started talking to him and bit, and then we thought ‘this is interesting, oh, this is interesting’. And then we merged everything. And then we were like ‘Oh, we have an idea here!’.” (I.10)</p> <p>“...when I first arrived, I knew nobody, but everybody was crazily good with ideas. And just talking ‘Oh, this is my idea’ and ‘oh this is my idea’ inspires me.” (I.10)</p> <p>“...I've had some inspirational dialogues or talks with some of [the other entrepreneurs]” (I.11)</p> <p>“Like triggering [among incubatees] in a good way.” (I.12)</p>	<p>Idea Generation</p>

Learning Mode

Action

<p>Representative Quotes</p>	<p>2nd Order</p>
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	Theme
<p>“Because you can really come here with any idea, and you can try what it is like to run your own company. Let's see if it's anything for you at all.” (I.1)</p> <p>“I think you learn pitching by doing it in real life not in a workshop.” (I.4)</p> <p>“Because in a way, you're in a very protected environment, running a business in a student incubator, you're not really there's no pressure for you to go out and get a job, because you have studies anyways, that are limiting you from that.” (I.6)</p> <p>“I could imagine is to encourage people to run their business and maybe being very critical to someone's idea and challenging them can be perceived as kind of discouraging their ideas, discouraging their business.” (I.6)</p> <p>“Probably just come in, try it out. Try your idea, see if it's something for you or not. Maybe just kind of a test ground and giving you a little bit the tools you know” (I.7)</p> <p>“...it's kind of a safe space, because you don't risk anything really because if it doesn't work out, it doesn't work out, you can go back to your studies.” (I.10)</p> <p>“But when we went to Adsensus, for example, [...] went out and were more practical. That saved our company pretty much.” (I.10)</p> <p>“...I can express my ideas without them being judged too much.” (I.10)</p> <p>“...being in an environment that allows you to test things and experience things...” (I.10)</p> <p>“...it's quite nice to have a game test..” (I.11)</p> <p>“...I think this is a great place to start.” (I.13)</p> <p>“I think [the goal of VL] is to make projects possible to become companies and just getting to know what company forms there are, what's required, what you can do, what you can't do.” (I.13)</p> <p>“Sometimes it's kind of like a playground. You know?” (I.14)</p> <p>“You definitely learn more from your failures than from your success, at least that's my takeaway from it.” (I.14)</p>	Experimenting
<p>“they should be confident enough to know what they need” (M.1)</p> <p>“Because they don't take a very active role in helping us or in the carrying about us” (I.4)</p> <p>“...they may make some assumptions that are false, but still be nice if they just challenged you pushed you a bit to make you think. And then in the end you can make your final decision on how you want to take that feedback.” (I.6)</p> <p>“I figured they shouldn't have to motivate you that you should just motivate yourself.” (I.11)</p> <p>“I don't think you should need to be pushed if you want to do something” (I.13)</p> <p>“We had one meeting with Elisabeth where it was all four of us. We asked Elisabeth to join us to and it ended up with the four of us talking for like 45 minutes. We got through, just by having Elisabeth ask one question. And we were like ‘Oh, nice. Thanks.’ And she went ‘I didn't say anything’.” (I.13)</p> <p>“...my business advisor didn't know how to do it practically and I didn't know who to go to get help to do that. So I just figured it out myself</p>	Taking Ownership

<p>somehow...” (I.14)</p> <p>“You get so much responsibility that you learn to handle because you basically have to become a master at everything...” (I.15)</p>	
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Interaction

Representative Quotes	2nd Order Theme
<p>“And really, I feel more incubated by the people around me than, than the staff of the incubator.”(I.4)</p> <p>“If you have a spot in VentureLab. Just by like, just from the entrepreneurs, who are around you. Yeah, we got a lot of help from many people. Because sometimes there are like quite simple questions, you don't know the answer to yourself. And you can just go around and ask and then they help you.” (I.4)</p> <p>“I asked, for example, Murat, or the HomePal guys for very simple things that they can be of help with translation to Swedish, or whatever.” (I.9)</p> <p>“...I have quite specific knowledge about bookkeeping stuff, and I regularly help people out with that.” (I.9)</p> <p>“I kind of found someone who could do that networking for me.” (I.10)</p> <p>“...it's been quite relieving and also a bit developing to feel that I can give away some of the aspects or parts of the project and I don't have to be a hundred percent controlling.” (I.11)</p> <p>“I know people enough now that I know who's good at what, and who knows who and how far they've come. So I would feel comfortable in asking for help, if I need it.” (I.12)</p> <p>“...when we were pitching for investors Murat was a great help, because he had been pitching a lot.” (I.13)</p> <p>“You get to know a lot of people and they're all very helpful.” (I.14)</p> <p>“...you always try to help people if they need it. And try to get help if you need help. “ (I.15)</p> <p>“...we asked Renjer who's been in a lot of negotiations how they manage it. They helped us a bit with that.” (I.15)</p>	<p>Helping Peers</p>
<p>“They noticed very bad web pages and told us, we should call these guys. And then we have done it.” (I.1)</p> <p>“We got a lot of feedback, free feedback, also on our software, which was amazing.” (I.2)</p> <p>“you are next to all these people, they are going to tell you something. So, the feedback thing incredible.” (I.2)</p> <p>“You can always talk with people from different areas, and express an idea, and they will help you along.”(I.5)</p> <p>“If you have something, you talk, they talk with me, and we just give opinions and maybe think differently, pretty much because it's so many different backgrounds here” (I.7)</p> <p>“Present [your business] to the others, hear from the others...” (I.9)</p> <p>“I could probably go to anyone and ask them ‘okay, what do you think about this?’” (I.10)</p>	<p>Exchanging Feedback</p>

<p>“... the test aspects and actually listen to people's ideas, and also watch out for myself that I don't get too emotionally attached...”</p> <p>“we knew that there were other entrepreneurs of course around us, so we asked for help from them, because they were more experienced.” (I.4)</p>	
<p>“we recommend ... to network with the other because there is always someone else with the same challenges so to talk to the incubatees” (M.1)</p> <p>“...there are a lot of people here that can lift you up.” (I.1)</p> <p>“...create this environment where people talk a little bit more about what they are having difficulties with, you know, not like, what are my news but more like, I'm having trouble with this.” (I.2)</p> <p>“...supportive mindset of other entrepreneurs that were around us.”(I.4)</p> <p>“So, I think we were just trying to we were sharing our problems like with the Suntribe guys because they are also selling not food but they were having like similar kind of channels selling to stores” (I.4)</p> <p>“And also the same come like, for us, if we had some problems, we could come up with questions, and then people would help us. So, it's, I think it's a really nice, like small forum for sharing your problems and telling your week has been.”(I.4)</p> <p>“Have people everywhere that are in the same stage. You can just push each other” (I.5)</p> <p>“Meeting new companies and try to understand them. And with that, kind of pushing each other, instead of like thinking that's such a bad idea” (I.5)</p> <p>“And you can always like if you're struggling with something you can just talk to them and they will help you out, cool you down and guide you on the right way.” (I.5)</p> <p>“...just to see the other companies making progress makes me happy and makes me...I want to also have progress.”(I.5)</p> <p>“Because like to make this kind of community in an incubator it's nice if people know a little bit what others are doing, what their current situation status is. So, they Thursday meetings provide a quite efficient way of everyone just sharing that with each other.”(I.6)</p> <p>“Because then you can you share your experiences, you are with people who are in a very similar situation to you. So that your challenges are relevant to them, and vice versa.” (I.6)</p> <p>“And it just kind of shows people that it's possible to make it and to take it to the next level and live on it eventually.”(I.6)</p> <p>“I mean, to be in VentureLab it's really, it's uplifting in a way. It's a good networking area you have access to. For me personally, it's like, really, I'm looking forward to come here every day, because I have fun here.” (I.7)</p> <p>“...you will listen to their stories, their problems, maybe you can help them, maybe they can help you...” (I.9)</p> <p>“I got some insights of like, what people have done, and what didn't work, and what did work, etc.” (I.10)</p> <p>“...when you're here in this environment, you overcome that you don't even think about that, you know, I told them, I'll show up. So I'll show up.” (I.12)</p> <p>“Renjer and Skon and Tuukka as well, they worked a lot with sales, they worked with product sales, just seeing them call, call, call motivates you to call as well.” (I.13)</p>	<p>Sharing Challenges</p>

<p>“...then you can take learnings from past companies and what they have done what they wished they had done.” (I.13)</p> <p>“I feel like when you hear other people talking about their problems or when you talk about your own and somebody tells you ‘maybe you could do this, try this’. That has helped us. I can't really say a specific moment right now, but I feel that it helps us when we talk about it like that.” (I.15)</p>	
<p>“of course just ask us if there is anything particular that they need. But not a program in that sense that ‘Ok now we have a plan for everyone to do this’” (M.1)</p> <p>“...if you have any questions, you can always find someone to talk” (I.1)</p> <p>“So, we knew that we could book meetings with them. If we need to solve some problems.” (I.4)</p> <p>“So, you can if you do need to talk to them about something you can do that.” (I.6)</p> <p>“I sort of knew the answer to when I asked them for example when I had a meeting with Elisabeth. Still it's nice to just ventilate yourself...” (I.11)</p> <p>“I will down the road need legal help.” (I.12)</p> <p>“I haven't asked for it yet. But I will definitely.” (I.12)</p>	<p>Accessing Advice</p>
<p>“We had Elizabeth, by the way. And so she was great for assisting of those matters. And she, you know, she questioned every bit and piece.” (I.2)</p> <p>“...just people asking really annoying questions is actually really good, even though you don't like it at all at that point.” (I.2)</p> <p>“So having somebody who questions us on basically every step of the process was really good, and sort of shaping, you know, not giving us the answers, but asking the questions that we discuss ourselves, which then led to, you know, realizing the importance of various aspects.” (I.4)</p> <p>“I think they were more a way for you to reflect yourself. So, you were supposed to talk and explain your business. And then you got some pointers, and it was sort of an exercise for you to think about where you are and where you want to go.” (I.6)</p> <p>“...[at the business coaching] I would be kind of challenged about my own ideas on what I was doing.” (I.14)</p>	<p>Questioning</p>
<p>“we want to empower our students to create the future, that is the main goal of the incubator like even if they don't succeed with the company they are here with, they should feel empowered that they can do this and if not with the idea, maybe with the next idea.” (M.1)</p> <p>“We sometimes finance post and sometimes we just like post like look at what this entrepreneur has done and things like that” (M.1)</p> <p>“I've talked a bit to Isak about different things and he has listened to our ideas and been very supportive around that.” (I.1)</p> <p>“But they're like doing their best to encourage you in any other way. By being nice and organizing, like afterworks, and some events and stuff like that, where you can then bond better with our companies.” (I.4)</p> <p>“...they really try to make it happen and try to get you what you need. So that is what I really, really enjoy.” (I.9)</p> <p>“...the most helpful personally for me is that [Venture Lab] keeps me motivated to come to work every day...” (I.9)</p>	<p>Encouraging</p>

<p>“...when I've talked about networking and contacting people, in business advisory meetings, they said ‘Just do it’.” (I.10)</p> <p>“...VentureLab had helped me mentally taking [the initiative to] contact [others].” (I.11)</p> <p>“[VentureLab] has been essential to get to where we are today. I think we would have stopped with this project months ago...” (I.13)</p> <p>“...the business advisor was with me when I met the lawyer at Lund innovation.” (I.14)</p> <p>“...we got our own business advisor that we met every two weeks or something. So that was really good, just catching up and really putting us in the right direction.” (I.15)</p>	
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Incubator Support

Coaching

Representative Quotes	2nd Order Theme
<p>“We also threw around some ideas with Elizabeth when it came to the pitch for example.” (I.2)</p> <p>“We sat here for a meeting in this room actually. And she, we did this model, the business model canvas, for example. And she helped us by getting our company through the steps.” (I.5)</p> <p>“...we had an idea, we came to this meetings, and we got either confirmation that we were on the right track or they gave some advice...where to look else for help, or which other direction to take or something like that” (I.9)</p> <p>“Elisabeth, who's my business coach, she started setting deadlines for me and actually pushing more to accomplish things that were outside of just the game creation.” (I.11)</p> <p>“...the business advisor was with me when I met the lawyer at Lund innovation.” (I.14)</p> <p>“...she said ‘you should really talk to potential customers before you develop to see what they want’. That was really good.” (I.15)</p> <p>“...she helped us more realize how you built business or how you should approach it” (I.15)</p> <p>“...we got our own business advisor that we met every two weeks or something. So that was really good, just catching up and really putting us in the right direction.” (I.15)</p>	Business Support
<p>“And a little bit how to deal with some of the stress that may be come with that. Things like limited sleep and things like that can result from it. And they gave, I think some good advice on that.” (I.6)</p> <p>“...the most helpful personally for me is that [Venture Lab] keeps me motivated</p>	Psychologic al Support

<p>to come to work every day...” (I.9)</p> <p>“...VentureLab had helped me mentally taking [the initiative to] contact [others].” (I.11)</p> <p>“[VentureLab] has been essential to get to where we are today. I think we would have stopped with this project months ago...” (I.13)</p>	
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Network

Representative Quotes	2nd Order Theme
<p>“Second of all, they have a lot of good contacts, they have good lawyers, good people with economic skills and everything you need to keep the business running...” (I.1)</p> <p>“...they have the whole team over at LU innovation, which is supporting companies. I mean, I think, um, I think that is something extraordinary...” (I.2)</p> <p>“we figured out that we need to get some money. So, we just had some meetings with Ricardo from LU Innovation. So he was just connecting us with some angel investors” (I.4)</p> <p>“But we have gotten and you can get a lot of money as well. And if you want to seek funds, they can help you with that.”(I.5)</p> <p>“There's actually I should mention this, there's some funding through VentureLab you can apply for, which is 15,000 SEK. So, I'm going to do that I don't know, will make a big, big difference in my business but it's a nice addition.” (I.6)</p> <p>“So, you are still in a kind of a environment of Ideon still which gives you also access to all these kind of things as well, you know, to to big companies over here.” (I.7)</p> <p>“...they could guide you to another more experienced person, the people that work usually have a good network and connect you with a specific person.” (I.9)</p> <p>“...especially being situated here at Ideon, there’s just a bunch of different companies around you.” (I.10)</p> <p>“They had some lawyers we could at least send some contracts to for them to read through.” (I.13)</p> <p>“Actually, it was one of the people working at VentureLab who was like ‘I know this girl who was talking about doing something similar you should work together’.” (I.14)</p> <p>“LU innovation... where you can get business advice and you get their law advice and all of these things that we had no idea, no clue about.” (I.15)</p>	External Network
<p>“...a cool part as well, just being close to the other companies.”(I.2)</p> <p>“And then we knew that there were other entrepreneurs of course around us, so we asked for help from them, because they were more experienced.”(I.4)</p> <p>“You can always talk with people from different areas, and express an idea, and they will help you along.”(I.5)</p> <p>“...office space and environment with other people running start-ups.” (I.6)</p> <p>“I think that is probably one of the most interesting and kind of exciting aspects</p>	Internal Networks

<p>of venture lab is that they have a lot of people working here who have developed their businesses quite well.” (I.6)</p> <p>“ I like to be here. I like, you know, like being around the people. How it helped me? Yeah, maybe networking maybe also not being only with people my age, maybe broaden the, you know, your network, the ages, you know be more with students having some bright minds, fresh minds around you. Yeah, I guess that helps.” (I.7)</p> <p>“...just the whole atmosphere of working with, I guess, a like-minded people, I think that's most important to me...” (I.9)</p> <p>“You get to know a lot of people and they're all very helpful.” (I.14)</p>	
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Workshops

Representative Quotes	2nd Order Theme
<p>“I think you learn pitching by doing it in real life not in a workshop.” (I.4)</p> <p>“we don't like workshops. Of course, the idea is good. But it takes a lot of time. And we know we just going to end up with something that I can read in a book in 20 minutes instead of listening for one hour.” (I.5)</p> <p>“And yeah, something about I had a video as well, they [at the pitching training] wanted me to change a little bit of the content of that, and the emphasis of that, which was very, I think, very useful feedback.” (I.6)</p> <p>“pitching preparation of how you present your business, and to which audience you present it.” (I.6)</p> <p>“... when you actually go to pitch, the way you say things and the way you explain things... But other people are like ‘What are you saying? Like, what?’ And that realization that ‘oh, I have to change the way I'm talking to people when they're not within the field’, that was an aha-moment for me, realizing I have to adapt to the audience.” (I.10)</p> <p>“...the insight [after a pitching workshop] that it's more than just a product, that it's the project, that we have to present it” (I.11)</p> <p>“...I don't have the need or the time or the interest to now go on these events to ...” (I.12)</p> <p>“We were pitching to different people. That was cool. I think that was the day that I most get something out of.” (I.14)</p>	Pitch Training
<p>“...we got the chance to take part in a [...] sales program. [...] I think that's like one of the factors that actually changed our company completely.” (I.4)</p> <p>“...they taught us how to sell and they had experience with fast moving consumer goods products there. [...]They also suggested us to change our product a little bit, make it to the smaller backs, make it more for the mass market.” (I.4)</p> <p>“So the [sales] program was more focused on our situation [...]. And so the coaches there were very [interested] about getting to know our company and making this program specified for us, that was really good. And because of that,</p>	Sales Program

<p>we learned a lot about trying to be better. And, yes, go out there and try to sell, be brave about it. [...] That was very helpful for us. Before we went to that program, we didn't talk about selling. And when we did" (I.5)</p> <p>"But when they went to Adsensus, for example, so they actually they did something and, you know, went out and, you know, be more practical. They saved their company pretty much." (I.7)</p> <p>"...I think without them, we wouldn't have been there. That [sales] program was super crucial for our company's success." (I.9)</p> <p>"it's really fun. Sales. But there's so much psychology behind it. So that was probably one of my takeouts and also that it's a lot of hard work. Just basically, crunch the numbers" (I.15)</p>	
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Academic Context

Representative Quotes	2nd Order Theme
<p>"it is really up to them how they want to use [the incubator]" (M.1)</p> <p>"...not a program in that sense that 'Ok now we have a plan for everyone to do this'" (M.1)</p> <p>"We are trying to adopt to their needs rather than the opposite" (M.1)</p> <p>"they can come and go as they please." (M.1)</p> <p>"And you don't have to feel any pressure about delivering something." (I.1)</p> <p>"VentureLab is a little bit more chilled. You can come here, and then you can develop your idea in your own pace." (I.1)</p> <p>"Here in venture lab, there is no like, I don't think it's very strict." (I.4)</p> <p>"But here, it seems more like there is no like, they don't really push you to do anything." (I.4)</p> <p>"I have the right amount of freedom and right amount of work." (I.4)</p> <p>"I think they just don't want to stress, like the really young companies, they want to give everybody a chance to try their projects, which is also a nice thing" (I.4)</p> <p>"So, I think it's a fairly casual environment here. And at the moment, that works for me, because I'm so occupied." (I.6)</p> <p>"[in contrast, the other incubator] was quite pushy towards you getting investment, like that is seen as the next step"(I.6)</p> <p>"If you are a student, you need sort of, to work with people who understand that and understand that there's some limitations to students running start-ups." (I.6)</p> <p>"I think, good and healthy aspect of a university campus that you're studying while you're participating in it and running your start-up. It allows for a sort of triangulation of learnings, because you learn things in university, you can apply them to your business." (I.6)</p> <p>"So it shouldn't be, like overpowering in a way that they cannot do their own</p>	<p>Flexibility</p>

<p>studies. There has to be some kind of balances.” (I.7) “...it's kind of a chilled environment, that's nice.” (I.10) “...it was also like ‘are there no rules?’. And it felt like this wasn't any organized, it was like come and go and we take in everyone.” (I.11) “‘And no one will question ‘what are you doing with your time?’” (I.11) “‘I'd say this place is very much good cop...’” (I.12) “‘I think it's perfect to have not too much pressure, because you're still studying at 100%.’” (I.13) “‘In the incubator they don't feel the pressure of a bigger structure, a bigger institution...’” (I.14)</p>	
<p>“They can get ... everything to make it easy for them to try it without really risking that much” (M.1) “Since I'm studying here in Lund it's very convenient for me to just walk here from LTH. It is like a three minutes-walk for me. So that's perfect.” (I.1) “‘I would say because, in essence, we're quite lazy. So we would always pick something that's very close, we're still studying. [...] So the proximity was essential’” (I.2) “‘So, you can if you do need to talk to them about something you can do that.’” (I.6) “‘...it's an advantage for students that like come right out of the program, that, I mean, it's a familiar area for them here, I would say, they know their way around.’” (I.9) “‘I think it is a very good entrance for students.’” (I.10) “‘This seems like the best fit for students.’” (I.12) “‘I do still feel that this is part of university I cannot really say why.’” (I.14)</p>	<p>Accessibility</p>
<p>“We try to bring in as many as possible. We do not see it as a purpose for us to be exclusive. It is better to help as many as possible and then they can determine themselves how much help they want...” (M.1) “‘We also try to look into the diversity of the incubator. It should be a diverse place because then people have the most use of each other. This can be gender, nationality, faculty...we try to get a big spread on that one’” (M.1) “‘I would say it is more entrepreneur focused selection and I don't like survival of the fittest because uhm survival of the determined if they keep working they can make it for the entire year and keep going after that.’” (M.1) “‘we should empower students. It doesn't exclude creating companies of different sorts but the most important part for me is to see people coming in here grow as entrepreneurs and realize that his is a possible lifestyle of work I can do.’” (M.1) “‘survival-of-the-most-determined’” (M.1) “‘They have a lot of different ideas. From selling deer meat to developing apps for booking laundry times. So, it's a great like, we have different things.’” (I.1) “‘But I think here they are more open and accepting more projects to be part of the incubator.’” (I.4) “‘they want to give everybody a chance to try their projects, which is also a nice thing.’” (I.4) “‘...and meeting people from different cultures. There is something beautiful</p>	<p>Inclusiveness</p>

<p>about that.”(I.5) “[in contrast, the other incubator] had a more rigidus application process” (I.6) “I like to be here. I like being around the people. How it helped me? Yeah, maybe networking maybe also not being only with people my age, maybe broaden your network, you know be more with students having some bright minds, fresh minds around you.” (I.7) “I feel like venture lab, they have lower entrance barriers.” (I.10)</p>	
<p>“We want to create a place which fills all their professional and social needs. We have afterworks and workshops in different topics ... We want to have a community which is thriving from each other and that is also like we want to see the entrepreneurs to see the benefit of that themselves” (M.1)</p> <p>“Even if you don’t get any knowledge from the other entrepreneurs in the network, you can be helped when you have a down and you lose hope and determination to see others that work hard and the determination they have can influence you as well with a positive attitude.” (M.1).</p> <p>“a cool part as well, just being close to the other [start-up] companies.”(I.2)</p> <p>“But it's, it's more the spirit. It's kind of the network, but it's the you know, the people around you are in a similar situation ... we are facing the same problems and you have the you have similar issues. And you just want to help each other out.” (I.4)</p> <p>“The thing is like we have become family. When I'm not in school, I'm here. I actually skip exams, because I want to be here. [...] It is because of them, I'm here.”(I.5)</p> <p>“So yeah, the members serve a bit of inspiration, some cases, and then there's this other members who are more in a similar situation to you, they're undergoing the same challenges you are.” (I.6)</p> <p>“But it's nice that it brings people a bit together. So, everyone sits down and watches a game occasionally.” (I.6)</p> <p>“ very useful to have, like a community or just people around you who are in a similar situation” (I.6)</p> <p>“...just the whole atmosphere of working with, I guess, a like-minded people, I think that's very important to me...” (I.9)</p> <p>“...just being in an environment with other entrepreneurs, that is probably the most valuable thing for me.” (I.10)</p> <p>“...when I joined, the reason I'm here is because the social climate you have.” (I.12)</p> <p>“I've taken out good friends from VentureLab” (I.13)</p> <p>“we usually go to the events which are just mingle at the bar or something.” (I.13)</p> <p>“...you meet a lot of other people who are trying to become an entrepreneur and are like minded.” (I.15)</p> <p>“I made so many friends in VentureLab, that's really nice. So it's a really good community. We have movie nights, and we have great after works.” (I.15)</p>	<p>Sense of Community</p>

