Entrepreneurial Learning Behaviour of Community Insiders

ABSTRACT

Purpose – The purpose of the present paper is to explore entrepreneurial learning at the centre of communities of practice.

Design/methodology/approach – Learning perspectives from the community of practice concept are applied to interpret and discuss results from an in-depth empirical investigation using a novel qualitative method; the Zaltman metaphor elicitation technique (ZMET), to study the entrepreneurial learning behaviour of ten coaches in a student venture incubator. The coaches are students with a certain level of entrepreneurial experience. Given their coaching roles and practices, the coaches are considered 'community insiders'.

Findings – The findings show how the socially situated entrepreneurial learning of community insiders could be considered an adaptive process following multiple learning trajectories depending on with whom and about what the entrepreneur involves in social relationships.

Practical implications – Policy makers seeking to facilitate communities of practice should enable learning activities for community insiders and organic development in addition to networking events and support for the entire ecosystem in order to enable bridging of communities of practice.

Originality/value – The present paper focuses on the entrepreneurial learning of community insiders using a novel qualitative method; ZMET. The paper empirically demonstrates that community insiders learn through an adaptive process and participation in multiple communities of practice. This is both in interaction with the nascent entrepreneurs whom they coach as well as when interacting with other community insiders.

KEYWORDS

Entrepreneurial learning; Communities of practice; Incubation; Student entrepreneurship; Learning behaviour

INTRODUCTION

The communities of practice concept has gradually started to receive more attention in research on entrepreneurial learning, including studies of student entrepreneurs (Haneberg and Aadland, 2020; Kubberød and Pettersen, 2018), family firms (Hamilton, 2011) and Internet-based community platforms (Hafeez *et al.,* 2018). Lave and Wenger (1991) explained learning in communities of practice through apprenticeship, whereby a newcomer learns through participating in the practices of experienced individuals. Initially, a newcomer is involved in simpler and less critical tasks, and gradually gets involved in more advanced tasks in order to eventually becomes a 'central' community participant. Following that view, becoming an entrepreneur implies a process of participating in a community of entrepreneurial practice

(Rigg and O'Dwyer, 2012). This means that the learning of 'community insiders' (Wenger, 1998); those who can be considered to be at the centre of the community of practice, has become a 'black box' that has been taken for granted in previous research. However, community insiders are important for understanding socially situated entrepreneurial learning in communities of practice, especially the specific contextual environments in which entrepreneurial learning occurs (Ekanem, 2015) and the entrepreneurial practices within that environment (Corbett, 2005, 2007).

Learning, as such, has a central role in entrepreneurship research and practice, to the extent that Minniti and Bygrave (2001, p. 7) stated that entrepreneurship *is* learning. Entrepreneurial learning has during the last decades emerged as a research focus to understand how entrepreneurs develop themselves and their ventures through a continuous learning process (Nogueira, 2019; Rae, 2005). The entrepreneurs' behaviour feeds a learning process of continuously modifying action through experience and reflections (Edmondson, 1999; Garud and Van De Ven, 1992). Hence, the link between practicing entrepreneurship and learning entrepreneurship is strong, and learning occurs as entrepreneurs engage in the practice of inquiry or 'entrepreneuring' as unreflective action in accordance with various practices (Thompson and Illes, 2020). A practice-oriented view has increasingly been introduced to entrepreneurial learning research in order to move from entrepreneurial learning as a linear phenomenon with established structures towards the creation of an understanding of why, where and how entrepreneurs enact their practice based on interpretation and instinct (Higgins *et al.,* 2019). Such a view further builds on a notion of learning as not distinct from working (Cowdean *et al.,* 2019), where entrepreneurs learn through being reflective practitioners of entrepreneurship (Cope, 2005). According to Higgins *et al.* (2019), practice should be positioned in entrepreneurial learning as a process of human engagement which is emergent and enacted. 'Entrepreneuring' thereby becomes a social action that is constructed, enacted and made sense of (Champenois *et al.,* 2020).

The present paper focuses on the learning of entrepreneurs who are community insiders. The present paper borrows from Thompson and Illes (2020) stating that entrepreneurial learning consists of three parts; practical know-how, the unsaid ways of engaging in social-material aspects of the practice, and ordering or weaving various practices through translation. In the context of community insiders, this means exploring how community insiders learn from their own practice, how they learn from the practices of newcomers (in Lave and Wenger (1991); 'peripheral participants') and how they order or weave various entrepreneurial practices through translation at the centre of a community of practice. The relationship between the central and peripheral participants is characterised as mentorship where the central participant is considered the more knowledgeable. The introduction of practice into entrepreneurial learning mentioned above enables us to conceptualise the relationship as a means of support and assistance in the construction of new knowledge and insight in the thinking patterns of the peripheral participant. However, previous studies have not mentioned how this actually occurs in practice and why central participants participate in these learning processes. Thus, in order to complement previous studies of socially situated entrepreneurial learning in communities of

practice, *the purpose of the present paper is to explore entrepreneurial learning at the centre of communities of practice.*

In order to explore entrepreneurial learning at the centre of communities of practice, an inductive in-depth study of coaches in a student venture incubator was performed. The coaches studied in the present paper are students with a certain level of entrepreneurial experience from their own new venture creation efforts. The coaches are also students in a venture creation programme; a two-year, full-time Master of Science programme in entrepreneurship that combines a full-time academic programme and students' new venture creation to educate business developers. Previous research has pinpointed the importance of coaches and mentors for entrepreneurs and entrepreneurial learning (Rigg and O'Dwyer, 2012; St-Jean *et al.,* 2018; Sullivan, 2000), viewing these individuals as experienced entrepreneurs faithfully contributing to the learning and development of nascent entrepreneurs. In the present paper, the focus is contrastively on how such coaches learn as community insiders in the student venture incubator. In other words, how practices of coaches and nascent entrepreneurs are translated at the centre of the community of practice.

The present paper is structured as follows: In the next section, a literature background in the important parts of entrepreneurial learning outlined above is presented. Following this, the specific research context, a student venture incubator, and the research methods applied are described. Specifically, the research design and empirical strategy of the present paper comprise an inductive investigation of 10 coaches in a student venture incubator using the Zaltman metaphor elicitation technique (ZMET) (Zaltman and Coulter, 1995) to gain deep and rich qualitative insights via a rigorous analysis procedure. The fourth section presents the empirical findings, which are thereafter discussed in light of the literature background. Lastly, the conclusions of the study as well as its implications and suggestions for future research are discussed.

LITERATURE BACKGROUND

Experiential learning (Kolb, 1984), through which entrepreneurs develop their 'stock of knowledge' (cf. Politis, 2005) has been – and still is – central to research on entrepreneurial learning (Nogueira, 2019; Wang and Chugh, 2014). Entrepreneurial learning may occur through observing others and relating such observations to one's own experiences (Holcomb *et al.,* 2009; Lévesque *et al.,* 2009). These 'others' may include, for example, role models (Zozimo *et al.,* 2017) or members of entrepreneurial teams, communities or ecosystems (El-Awad *et al.,* 2017; Karataş-Özkan, 2011). Rae (2005) views entrepreneurial learning as a combination of personal and social emergence, contextual learning and negotiated enterprise. Significant attention has been given to how entrepreneurs' formal or informal social networks are important for entrepreneurial learning (Lockett *et al.,* 2017; Scarmozzino *et al.,* 2017; Soetanto, 2017). Social relationships and interactions for entrepreneurial learning include how others help resolve critical incidents throughout the process (Saunders *et al.,* 2014), facilitate access to required resources (Fang *et al.,* 2010) and offer social support to entrepreneurs

(Mansoori, 2017). Entrepreneurs form social relationships with, for example, peers, customers, suppliers and investors (Pittaway and Cope, 2007). To a certain extent, the individual-centric view under-emphasises the social environment that entrepreneurs are part of (Rae, 2005; Taylor and Thorpe, 2004). Hence, entrepreneurial learning is increasingly viewed as a socially situated process of learning through social relationships and interactions (Jack and Anderson, 2002; Jones and Macpherson, 2014; Voudouris *et al.,* 2010).

While previous studies have considered how entrepreneurial learning may occur through observing others and relating such observations to one's own experiences (Holcomb *et al.,* 2009; Lévesque *et al.,* 2009), recent developments in entrepreneurial learning research have moved towards considering the entrepreneur as a participant in a community of practitioners rather than merely as a socially situated individual learner (Jones and Macpherson, 2014). This implies, for instance, that social networks can be viewed as communities of shared practices and learning (Lefebvre *et al.,* 2015), meaning that entrepreneurship is a social practice that is constructed, enacted and made sense of in such communities (Champenois *et al.,* 2020; Johannisson, 2011). Entrepreneurial learning research has increasingly adopted the communities of practice concept by Lave and Wenger (1991), which provides a way to understand how individuals learn through active participation in social situations (Wenger, 1998).

Wenger (1998) defined a community of practice by reference to three *fundamental characteristics* that explain the socially situated learning environment: (1) a domain of mutual engagement – for example, engaging in the coaching of nascent entrepreneurs; (2) a community in which members establish relationships and interact in some collaborative efforts within the aforementioned domain; and (3) a shared repertoire of practices, experiences, stories and documents which the community develops over time. Within a community of practice as defined by the three fundamental characteristics, individuals may follow different types of *learning trajectories* at different times. Starting with the original conception of learning in communities, whereby peripheral participants gradually become more central, individuals start on a peripheral learning trajectory and then assume an inbound learning trajectory, eventually becoming more central – or, in Wenger (1998): 'internal' – to the community. Once an individual becomes a central or internal participant, an internal learning trajectory is followed. Eventually, an individual may become less involved in the community, thus following an outbound learning trajectory. Wenger et al. (2002) further pointed out that community multi-membership is common, since individuals are likely to be engaged in several forms of practice in their lives (Handley *et al.,* 2006). Individuals participating in complementary communities of practice are thus expected to have access to multiple – and perhaps complementary – resource repertoires which allow them to perform *knowledge brokering* (Clavert *et al.,* 2018; A. E. He, 2009). Brokering between several communities represents the last type of learning trajectory: a boundary trajectory. Through knowledge brokering, the knowledge created through learning in one environment can be applied and shared in another environment.

Entrepreneurial learning behaviour provides a way to understand how behaviour feeds a learning process of continuously modifying action through experience and reflections

(Edmondson, 1999; Garud and Van De Ven, 1992). In other words, that entrepreneurial learning is examined as identifiable activities and behaviours which facilitate and represent their practice and learning (Champenois *et al.,* 2020; West and Gemmell, 2021; Wing Yan Man, 2006). Accordingly, specific entrepreneurial learning behaviours impact how the entrepreneurial learning process actually occurs (West and Gemmell, 2021) and thus provides a perspective complementary to the dominant cognition-based and/or outcome-focused perspectives held in entrepreneurial learning studies (Claire *et al.,* 2019; V. F. He *et al.,* 2018; Nogueira, 2019; Wing Yan Man, 2012). Focusing on entrepreneurial learning behaviour, the present paper emphasises different aspects of coaches' entrepreneurial learning behaviour through the social relationships and interactions in which they are involved given their roles and practices in the community.

Learning in communities of practice entails active participation within a domain of mutual engagement through social relationships and interactions between participants. The background on learning in communities of practice as introduced above demonstrates that learning trajectories of coaches (internal trajectories) are likely to be distinct from those of the nascent entrepreneurs whom they coach (peripheral or inbound trajectories) (cf. Wenger, 1998). Hence, the present paper focuses on the entrepreneurial learning of community insiders who follow internal rather than peripheral learning trajectories. What is interesting about their roles and practices as coaches is that they support individuals following peripheral or inbound learning trajectories: the nascent entrepreneurs. Therefore, the research context of the present paper matches well with the concept of practice and learning in communities of practice. Since the coaches may also be participants in several communities, they may possibly perform knowledge brokering as part of their entrepreneurial practices and entrepreneurial learning process. In short, the roles and practices of coaches as internal community participants – community insiders – represent a way to understand their entrepreneurial learning behaviour as community insiders.

METHOD

Previous empirical research on entrepreneurial leaning has applied a plethora of research designs, ranging from the more traditional survey-based quantitative investigations (van Gelderen *et al.,* 2005) and multiple qualitative interviews with entrepreneurs (Wing Yan Man, 2012) to novel approaches such as video ethnography (Thompson and Illes, 2020), comprehensive longitudinal qualitative designs (Ekanem, 2015) and narrative analysis (Rae, 2000). To recall; the purpose of the present paper is to explore entrepreneurial learning at the centre of communities of practice. Since previous research addressing similar objectives is scarce, a qualitative approach was deemed appropriate where inductive and exploratory techniques could fruitfully be applied to gain novel insights. In-depth practice-based approaches (cf. Thompson and Illes, 2020) would be very interesting given the research objectives, but since the coaching activities occur at often unforeseeable locations at any point in time during the week (and weekends), the authors found it utopic to be able to cover the community practices at an overall level. Instead, the authors found it appropriate to explore the

mental models of several of the practitioners in order to understand their learning behaviour and why they engage in this behaviour, and hence, a metaphor-based research design was selected. Metaphors and storytelling are useful for individuals to make sense of and communicate their personal experiences (Boje, 1991, 2018), and metaphors make individuals communicate their thoughts and feelings clearer (Geary, 2011). Qualitative researchers could depart directly from metaphors presented by interviewees (Lawley and Tompkins, 2000), as previously used in a study of coaches (Linder-Pelz and Lawley, 2015). What the metaphor-based approach offers for the present paper is therefore more richness in responses from the group of individuals studied (Calder and Aitken, 2008) along with increased rigorousness (Christensen and Olson, 2002). While the analysis techniques chosen very much resemble that of grounded theory (Corbin and Strauss, 1990) and the Gioia approach (Gioia *et al.,* 2013), it adds a means–end analysis technique (Reynolds and Gutman, 1988). This section introduces both the research context and a step-by-step walkthrough of the methodological actions which were taken. The metaphor-based technique applied ensured the generation of deep insights alongside improved robustness of the analysis process.

The Research Context: A Student Venture Incubator

This paragraph provides a background of the student venture incubator as well as a closely related entrepreneurship programme. The research context selected for this study is a university-wide student venture incubator managed by students and funded by three large companies. At its core, the student venture incubator provides coaching in the entrepreneurial process to students who want to engage in entrepreneurship and have specific projects or ideas they wish to pursue (cf. Haneberg and Aaboen, 2020). In addition to the one-on-one coaching of student entrepreneurs, the student venture incubator also offers seed funding grants of up to €2,500 for student-owned ventures, as well as hosting networking and matchmaking events. Over the past five years, the student venture incubator has supported more than 300 student venture projects and ideas. A portion of these student ventures have developed into economically profitable companies. The coaches in the student venture incubator are students with a certain level of entrepreneurial experience from their own new venture creation efforts. The majority of coaches are – or have recently been – students in a venture creation programme (hereafter 'VCP'). The VCP is a two-year, full-time Master of Science programme in entrepreneurship that combines a full-time academic programme and students' new venture creation to educate business developers. Although the student ventures are regarded as a vehicle for learning and not as the primary outcome of the VCP, around 50% of graduates in recent years have continued to work in their new ventures after graduation. The created ventures operate within a diverse set of business areas, but common to them all is that they are knowledge-intensive enterprises (Secundo *et al.,* 2017). The total revenue of ventures originating from the VCP had, at the time of this study, exceeded €40 million (cf. Sørheim *et al.,* 2021). Hence, the coaching activity in the student venture incubator is a way to leverage the experience and knowledge generated in the VCP to a broader population of students.

Introduction to the Zaltman Metaphor Elicitation Technique (ZMET)

The Zaltman metaphor elicitation technique (ZMET) is a hybrid methodology (Lee *et al.,* 2003) developed to understand consumers in marketing (Zaltman and Coulter, 1995). The basic idea

of the ZMET is that individuals' mental maps are combined in order to create a consensus map for a group of individuals (Haneberg and Aadland, 2020). More specifically: *'ZMET's use of metaphor to elicit and identify important, often elusive concepts, coupled with laddering probes to identify structural associations between these components, provide a useful method for eliciting and mapping both the content and structure of consumers' mental models'* (Christensen and Olson, 2002, p. 482). The ZMET is especially powerful in investigating empirical phenomena that have yet to be covered extensively (Catchings-Castello, 2000). In the present study, the ZMET was used to understand coaches' entrepreneurial learning through an investigation of how their mental models are structured. A detailed and stepwise explanation of the ZMET was presented by Zaltman and Coulter (1995), outlining seven essential steps that lead to the creation of a hierarchical model illustrating the mental map of the interviewees as a group. In the sub-sections below, the specific methodological steps taken to create the mental map in the present paper are presented.

Interviewee Selection and Data Collection

For the empirical investigation presented in this paper, 10 coaches in the student venture incubator were selected as interviewees. Since Zaltman and Coulter (1995) found that, on average, six interviewees were sufficient to reach consensus on the mental maps, 10 coaches was deemed more than sufficient for the purpose of the present paper. Previous ZMET studies reported using six participants (Zaltman and Coulter, 1995), eight participants (Lee *et al.*, 2003) and 15 participants (Christensen and Olson, 2002). The 10 interviewed coaches had at least one year of coaching experience in the student venture incubator and had taken part in all the activities expected of them. Each of the coaches were interviewed once. Among the coaches, three were female and seven were male. At the time of the study, the coaches ranged in age from 23 to 30 years old and had different backgrounds in terms of their undergraduate or graduate degrees.

One week before the scheduled individual interviews, the 10 coaches were asked to find at least five pictures that represented their thoughts and feelings about their coaching activity. Using pictures for data collection is not new in itself (Lee *et al.*, 2003). The focal role of the pictures during the data collection is connected to the basic premises of the ZMET. According to Zaltman and Coulter (1995), thoughts can be represented through images, and by using pictures, individuals can communicate deeper meanings and metaphors as compared to only using spoken or written words. The interviewees were directed to, in particular, gather pictures that represented their view on their relationship with the student ventures they coached, on their own venture and on the student venture incubator. Pictures showing several interlocked hands, rock climbers, lightbulbs and skateboards were recurring examples. At the beginning of the interviews, the researcher asked the interviewee to present herself or himself and to introduce the different pictures that were presented to the researcher during the interviews. From there, the researcher asked follow-up questions to prompt the interviewees to elaborate on their viewpoints in order to probe the emerging themes as deeply as possible. As an example of the interview process, the following conversation emerged from the moment when the interviewer ('S') presented the interviewee's ('V') picture of a child that was dressed like a superhero:

V: *"This is the strongest one."*
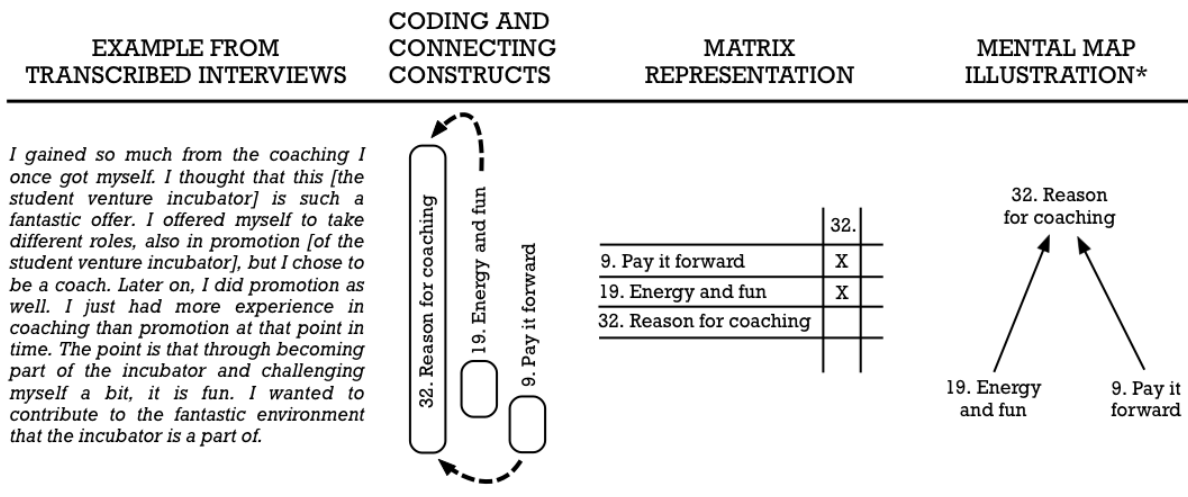
S: *"How come?"*

V: *"If it had not been for my start-up and the programme [the VCP], I would not have been a coach. It [the start-up] is the fundament of everything. It provides self-confidence and growing experience… it is the whole thing. There are two sides of coaching: What you can and the person you are, how you talk to people, how to understand what advice to give, understanding the situation of the other [the other person; the student entrepreneur]. The coaching is very empathic. But it is the competence as well, we are coaching the start-ups after all. It is the big thing."*

The interviews were thereafter transcribed and imported to the NVivo 12 software for the analysis steps.

Data Analysis and Construction of Mental Maps

The data analysis aided by the NVivo 12 software followed a grounded-theory approach (Corbin and Strauss, 1990). Both authors of the present paper performed the entire data analysis process together and worked to thoroughly discuss and resolve any disagreements on the different terms used to describe the emerging codes. The analysis consisted of open coding through which subcategories in the transcripts were identified, and a total of 176 codes were ultimately created. In the axial coding, subcategories that shared similarities were combined into 48 categories. The number of subcategories of each main category varied. For instance, the category 'entrepreneurial rollercoaster' consisted of subcategories 'ups and downs', 'accepting failures', 'entrepreneurship not always easy' and 'loosing perseverance', while the category 'energy and fun' consisted of subcategories 'coaching should be fun', 'fun to be coach', 'coaching gives energy', 'fun to observe progress', 'best teams give energy' and 'energy through helping'. After the axial coding, the authors went back to the transcripts in order to identify paired-construct relationships: *'the casual relationship between two constructs'* (Zaltman and Coulter, 1995, p. 44). An illustration of how paired-construct relationships were made from the transcribed interviews is presented in Figure 1 below. Going through the coded transcripts, the authors identified how the different constructs influenced the surrounding constructs, and a directional note was made for each identified paired-construct relationship. The paired-construct relationships were then documented in a spreadsheet matrix in Microsoft Excel for later graphical representation in a mental map. The resulting spreadsheet matrix is presented in Table 1.

I gained so much from the coaching I once got myself. I thought that this [the student venture incubator] is such a fantastic offer. I offered myself to take different roles, also in promotion [of the student venture incubator], but I chose to be a coach. Later on, I did promotion as well. I just had more experience in coaching than promotion at that point in time. The point is that through becoming part of the incubator and challenging myself a bit, it is fun. I wanted to contribute to the fantastic environment that the incubator is a part of.

32. Reason for coaching
19. Energy and fun
9. Pay it forward

	32.
9. Pay it forward	X
19. Energy and fun	X
32. Reason for coaching	

32. Reason for coaching

19. Energy and fun   9. Pay it forward

Figure 1: Illustration of the data analysis process departing from transcribed interviews, via coding and identification of paired-construct relationships, through representation in a spreadsheet matrix to final illustration in the mental map. *: only relationships that satisfied the threshold condition set by the cut-off level were included in the mental map.

When constructs and paired-construct relationships are to be used to create a mental map, two essential criteria must be met (Zaltman and Coulter, 1995): First, a certain number of participants must refer to the same construct for it to be included in the map. Second, a certain number of participants must also contribute to the same paired-construct relationship. Christensen and Olson (2002) stressed that a threshold must be met for constructs and paired-construct relationships to be included in the mental map, and this 'cut-off level' was set to three participants in the present study. A cut-off level of three is well in line with the recommendation of one-third to one-quarter of the total number of participants provided by Christensen and Olson (2002) in order to balance between a too complex, confusing and inconclusive mental map on the one hand and a too simple and less interesting mental map on the other hand. When creating the mental map based on the spreadsheet matrix, the constructs are placed in a hierarchical order, and arrows representing the paired-construct relationships fulfilling the conditions set by the cut-off level are inserted. In the map, there are three resulting kinds of constructs. *Originator* constructs only have arrows towards other constructs; *destination* constructs only have arrows leading to them from other constructs; and *connector* constructs have arrows going both to and from them. The paths between originator constructs, through connector constructs and further to destination constructs, are called construct *ladders*. In order to finalise the consensus map, eventual redundant arrows (Reynolds and Gutman, 1988), which are arrows that bypass the paired-construct relationships that were already illustrated, were removed for clarity. Instances where two constructs that were connected by paired-construct relationships that met the cut-off level in both directions were termed 'construct dyads'. The means-end relationship of constructs in a dyad cannot be determined, but what can be concluded is that the two constructs are closely interrelated and mutually influential.

	11.	12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	27.	28.	29.	30.	31.	32.
1. Coaches' meetings										*				*	*							
2. Influence from VCP	*																					
3. Learning from coaching															**	*	**					
4. Handling sense of responsibility											*											
5. Coaching roles							*															
6. Entrepreneurs' lack of competence		*																				
7. Coaches' educational background			**																			
8. Relevant experience					**																	
9. Pay it forward																						***
10. Informal coaching locations and situations				**																		
11. Becoming part of environment															*							
12. Recurring problems							*															
13. Entrepreneurial experience					*																	
14. Blurry boundaries																						**
15. Core competence						*																
16. The startups coached							*		**											**		
17. Coaching activity								*												***		
18. Coaching style												**										
19. Energy and fun																						*
20. Coaching as teamwork														*								
21. Coaching motivation and style develop												**						*				
22. Facilitate not dominate											*								*			
23. Sharing networks																						
24. Safe and supportive environment																						
25. Overview and broader perspective																						
26. Develop interactive skills																						
27. Contribution to own startup																						
28. Develop self-confidence																						
29. Asking questions																						
30. Push to take next step																						
31. Interesting projects																						
32. Reason for coaching																						

(Row groups at left: constructs 1–10 "Originator constructs", 11–22 "Connector constructs", 23–32 "Destination constructs")

Table 1: Connection frequencies. *, ** and *** mean a threshold level of 3, 4 and 5, respectively. Connections not meeting the criteria were excluded from the table.

Methodological Reflections

The ZMET method provides rich insight through a rigorous process, but all methods have their challenges and shortcomings. It is a comparably labour-intensive process as well as mentally demanding for the researchers to perform, given the substantial amount of unstructured data to be analysed in a rigorous and stepwise fashion. The insights gained from the ZMET analysis are highly dependent on interviewees' ability to represent their feelings through graphical images and spoken words (Catchings-Castello, 2000) as well as the skills of interviewers to facilitate the process. Also, the results from a ZMET analysis including a small number of interviewees cannot be generalised to larger populations, and the in-depth insight is valid specifically for the context studied such as the student venture incubator in the present paper. Other incubation initiatives would be fundamentally different considering the day-to-day activities, but that is the reason why the researchers' interpretation of the mental maps is of utmost importance. Insight and value from the ZMET analysis is generated when the content of the mental map(s) is considered in relation to broader theories and concepts; in this case entrepreneurial learning in communities of practice, as well as the practices studied; here the practices of coaches in the student venture incubator.

FINDINGS

The results from the ZMET analysis are presented in the mental map in Figure 2. The consensus map consists of 10 originator constructs, 12 connector constructs and 10 destination constructs. The relationships between constructs, and hence the constructs as such, included in the map are those meeting or exceeding the set threshold level of three interviewees.
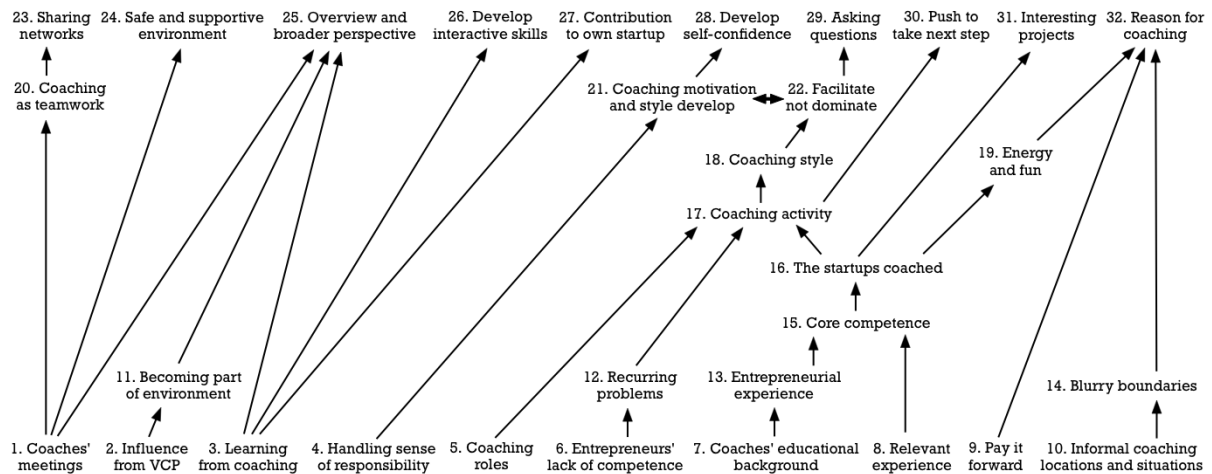
Figure 2: Mental map from the ZMET method. The lower line of constructs are originator constructs (constructs 1–10); the upper line of constructs are destination constructs (constructs 23–32); and the constructs in-between are connector constructs (constructs 11–22).

The following paragraphs elaborate on the information provided by the mental map, including how the connections between constructs can be understood.

Originator and Destination Constructs

Analysis of the nature of the originator constructs resulted in three main groups. The first originator group includes constructs regarding the formalised structures of the coaching initiative: constructs 1 ('Coaches' meetings') and 2 ('Influence from VCP'). Thereby, two central formalised structures in the coaching initiative are bi-weekly meetings in which coaches meet with all the other coaches to discuss, share networks, share challenges in the coaching processes, and debate how to coach and which roles to take as a coach. The other formal structure is that coaches are primarily recruited from the VCP. The second originator group includes constructs regarding characteristics of the individual coaching processes: constructs 3, 4, 5 and 10. This group refers to specific social situations in which the coaching activity occurs, is informal in nature, and is further defined by the roles and responsibilities taken by the coaches in addition to some anticipated learning outcomes as seen from the coaches' perspectives. The third originator group includes constructs regarding the characteristics of the nascent entrepreneurs, meaning constructs 6, 7, 8 and 9. This group manifests the premises set by the educational background and entrepreneurial experiences of the coaches along with the coaches' desire to contribute back ('pay it forward') to the nascent entrepreneurs. Also, the coaches' view on the nascent entrepreneurs' lack of competence emerges as an important consideration.

Similar to the originator constructs, the destination constructs were also divided into three main groups. The first destination group includes constructs regarding characteristics of the specific context in which they operate: constructs 24, 31 and 32. Hence, the coaches view the community as safe and supportive, and as involving interesting (entrepreneurial) projects. Moreover, a value that coaches see in the community is that it gives them a reason to perform

the coaching activity. The second destination group includes constructs regarding the coaches' specific activities, consisting of constructs 23, 29 and 30. This group demonstrates that sharing networks, asking questions (in contrast to presenting solutions and suggestions) and pushing the novice entrepreneurs to take the next step in the entrepreneurial process are essential activities. The third destination group includes constructs regarding the coaches' learning outcomes and consists of constructs 25, 26, 27 and 28. The coaches' learning outcomes comprise a broader perspective on the entrepreneurial process and entrepreneurial activity (construct 25), the development of self-confidence and interactive skills, as well as contributions to the coaches' own start-ups, keeping in mind that the coaches are also entrepreneurs themselves.

Connector Constructs, Construct Ladders and Dyads

Having outlined the originator and destination constructs, here the connector constructs are examined. As suggested by previous research (Reynolds and Gutman, 1988), ladders and dyads in the mental map were identified and analysed. Perhaps the most prominent characteristic of the mental map is that the ladders are many, yet mostly quite short. This describes a value map of a broad phenomenon that is dispersed on many different constructs rather than centred around a few constructs.

A central connector construct in the map is 'coaching activity'. As can be seen in Figure 2, 'coaching activity' is the result of 'coaching roles', 'recurring problems' based on 'entrepreneurs' lack of competence', and 'the start-ups coached' based on the coach's previous experience. The 'coaching activity' in turn directly influences 'push to take next step' and, through the connector construct 'coaching style' and the dyad 'facilitate not dominate'/ 'coaching style and motivation develop', also influences 'asking questions' and 'develop self-confidence'. In other words, it seems as if the coaching activity is adjusted based on the nascent entrepreneurs whom the coach is currently coaching and the experiences that the coach has had. Over time, the coaches develop their self-confidence and adopt a coaching style whereby they push the nascent entrepreneurs towards the next steps by asking questions.

A central destination construct in the map is 'reason for coaching'. One reason for coaching is 'energy and fun', which in turn builds on 'the start-ups coached' and 'core competence' based on 'relevant experience' as well as 'entrepreneurial experience' based on 'coaches' educational background'. Another reason for coaching is 'the blurry boundaries of the student venture incubator' building on 'informal coaching locations and situations', and the third reason for coaching is 'pay it forward'. The interesting aspect of this is that in addition to the coaching being energising and fun for the coaches, there are also important factors for coaching that are not directly connected to the coaching meeting itself in the traditional sense. In contrast, it is connected to the coaching that takes place while meeting at a café or at a networking event and a sense of wanting to 'pay forward' what the coach has previously experienced in the same community.

The first ladder, which is also the most detailed ladder in the mental map, originates from constructs 6, 7 and 8, which all belong to the group regarding characteristics of nascent
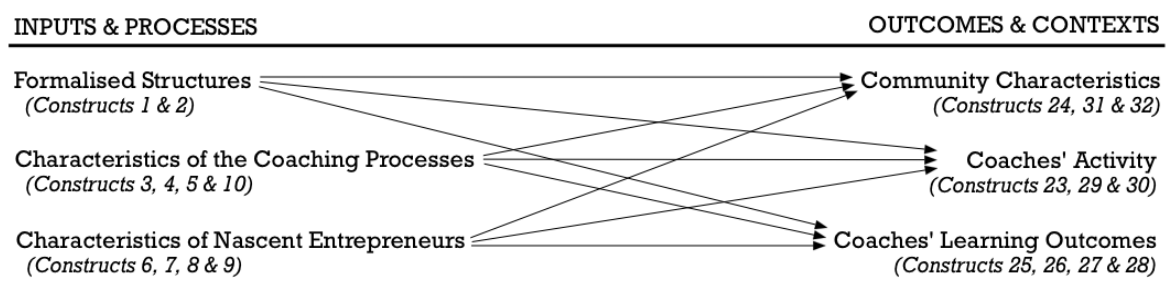
entrepreneurs and culminates in the destination constructs 29 and 30, which regard the coaches' activity. The connections between the mentioned originators and destinations are made through connector constructs 12, 13, 15, 16, 17, 18 and 22. The second ladder can be identified by aggregating all except for one of the originator constructs belonging to the group regarding characteristics of the coaching processes (constructs 3, 4 and 5) as well as the destination constructs regarding coaches' learning outcomes (constructs 25, 26, 27 and 28). The connections between originators and destinations are made by connector constructs 17, 18, 21 and 22 in the case of how different coaching roles lead to coaches' eventual development of self-confidence. For the remaining originators and destinations, there are more direct means-end relationships between originator and destination constructs.

There is also one construct dyad in the mental map: between constructs 21 ('Coaching motivation and style develop') and 22 ('Facilitate not dominate'). This dyad can be interpreted in the following way: The coaches develop their coaching towards more facilitation and less domination in terms of defining what the nascent entrepreneurs should or should not do.

First of all, the findings reveal three groups of originator constructs and three groups of destination constructs which will be discussed in the next section. Moreover, the findings also reveal two construct ladders: one ladder originating in characteristics of nascent entrepreneurs and leading to coaches' activities, and the other ladder originating in characteristics of coaching processes and leading to coaches' learning outcomes. Lastly, there is also a construct dyad between coaches developing their style and motivation and the distinction of facilitation and domination.

DISCUSSION

Along with the summary of the main findings presented above, another interesting feature of the mental map can also be recognised if the findings are considered at a higher level – meaning in terms of the three groups of originator constructs and the three groups of destination constructs. In this perspective, all originator groups lead to each and every one of the destination groups in one way or another through different means-end relationships in the mental map in Figure 2. This interconnectedness of construct groups is illustrated by the simplified model in Figure 3 below.

INPUTS & PROCESSES ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯ OUTCOMES & CONTEXTS

Formalised Structures
(Constructs 1 & 2)

Characteristics of the Coaching Processes
(Constructs 3, 4, 5 & 10)

Characteristics of Nascent Entrepreneurs
(Constructs 6, 7, 8 & 9)

Community Characteristics
(Constructs 24, 31 & 32)

Coaches' Activity
(Constructs 23, 29 & 30)

Coaches' Learning Outcomes
(Constructs 25, 26, 27 & 28)

Figure 3: How different aspects of socially situated entrepreneurial learning are interconnected by the entrepreneurial learning behaviour of coaches.

What this interconnectedness really demonstrates is how entrepreneurial action and learning are dependent on the characteristics of the specific people involved (Politis, 2005; Rae 2005), the specific processes involved (here: roles and practices of coaching in the venture creation process), the specific contexts within which the people and processes are situated (Ekanem, 2015; Wing Yan Man, 2012), and finally, coaches' learning outcomes. Thereby, the present paper emphasises how different dimensions of entrepreneurial learning behaviour are important in the learning process of community insiders. Beyond recognising that the four dimensions of entrepreneurial learning behaviour (Wing Yan Man, 2006, 2012) – inputs, processes, outcomes and contexts – are found and interconnected, the findings further provide insight into how inputs and processes facilitate outcomes and define the contextual environment for learning.

Adaptive and Emergent Practices of Community Insiders

The first ladder is an example of how the coaches' roles and practices depart from the characteristics of those with whom they interact: the nascent entrepreneurs. In addition, the coaches also bring to the table their personal experiences and core competence to complement and support the nascent entrepreneurs whom they coach. This finding is a demonstration of an adaptive characteristic of entrepreneurial learning processes (cf. Cantino *et al.,* 2017) whereby adaption occurs through weaving together various practices based on social relationships and interactions (Thompson and Illes, 2020). The adaptation process is hence an important processual aspect (Wing Yan Man, 2006) of coaches' learning that makes them develop their practices to best suit the needs of nascent entrepreneurs – that is, to push them to take the next step and ask questions. Hence, the findings of the present paper add to the literature on entrepreneurial learning in communities of practice by demonstrating that not only do peripheral community participants adapt according to community insiders, but community insiders also adapt through social relationships and interactions to the benefit of the community (Thompson and Illes, 2020). This is an example of negotiated practice (Rae, 2005) where even community insiders are still in a process of 'becoming' (Higgins et al., 2019). The second ladder provides empirical evidence of how coaches' roles and practices in the community provide themselves – and not only the nascent entrepreneurs whom they are coaching (Rigg and O'Dwyer, 2012; St-Jean *et al.,* 2018; Sullivan, 2000) – with some specific entrepreneurial learning outcomes, including 'soft skills' and a comprehensive overview of the social environment in which they operate.

Multiple Co-Existing Learning Environments and Knowledge Brokering

The construct dyad further pinpoints directly how coaches develop their practices to adapt to the socially situated context the community represents; in this case, through their social relationships with the nascent entrepreneurs they coach. In this sense, the coaches also interact in a 'community within the community' when interacting with other coaches, and the domain of mutual engagement is how coaching practice develops. In addition, there is also a domain of mutual engagement in which the nascent entrepreneurs are also involved, which is about

how to proceed and progress in the entrepreneurial process. What this potential 'dual commitment' of the coaches means is that while coaches may be on internal learning trajectories considering their practices as experts who facilitate nascent entrepreneurs, they also follow inbound learning trajectories as they themselves learn how to practice entrepreneurship coaching. While it could be argued that coaches are part of two communities of practice (one for coaching practices and the other for the entrepreneurial process) between which the coaches conduct knowledge brokering (Clavert *et al.,* 2018; A. E. He, 2009), these two domains of mutual engagement are eventually, undoubtedly interrelated and represent two ways of understanding the learning context (Rae, 2005). Adding to this emerging complexity is also the fact that coaches may perform knowledge brokering from additional communities, such as their cohort from the VCP (cf. Haneberg and Aadland, 2020). Regarding learning trajectories, the present paper argues that the coaches follow internal, inbound and boundary learning trajectories depending on with whom and about what they socially interact.

Importance of Social Relationships for the Contextual Environment

The implications of social relationships and interactions are that coaches are facilitated by each other to adapt their practices and learning to meet the needs of the community. This further means that coaches eventually focus their efforts on asking questions as well as on pushing the nascent entrepreneurs to take the next step in their entrepreneurial process, thereby involving in a kind of 'progressive practice' which facilitate the nascent entrepreneurs' practice and learning. Moreover, the present paper points to how social relationships are the 'fabric' that defines the structure of how entrepreneurial learning occurs in the specific contextual environment for practice and learning (Rae, 2005; Thompson and Illes, 2020). Thereby, social relationships are important for how different types of inputs come into play, how processes unfold, the learning outcomes that emerge, and the continuous redefinition of the contextual environment.

CONCLUSIONS

The present paper explored entrepreneurial learning as practice occurring at the centre of communities of practice, hence contributing to recent developments in entrepreneurial learning research towards considering the entrepreneur as part of a community of shared practices and learning (Jones and Macpherson, 2014; Lefebvre *et al.,* 2015). The present paper applied the communities of practice concept to study the entrepreneurial learning behaviour of coaches in a student venture incubator. The focus on the entrepreneurial learning of coaches as community insiders complements the focus of previous research of how entrepreneurs learn through the support of their coaches (Rigg and O'Dwyer, 2012; St-Jean *et al.,* 2018; Sullivan, 2000). Through an in-depth empirical investigation using the ZMET, the results showed that the four dimensions of entrepreneurial learning behaviour (Wing Yan Man, 2006, 2012) – inputs, processes, outcomes and contexts – co-exist and interrelate, and that social relationships and interactions facilitate the continuous adaptation of entrepreneurial learning processes, outcomes and contexts. Furthermore, the results showed that coaches follow multiple learning trajectories – that is, different types of learning processes – simultaneously based on with

whom and about what they interact through social relationships. Coaches' learning trajectories include potential knowledge brokering between several communities.

The present paper contributes to research on entrepreneurial learning by providing empirical insight into how the socially situated entrepreneurial learning of community insiders could be considered an adaptive process following multiple learning trajectories depending on with whom and about what the entrepreneur involves in social relationships. In particular, the present paper regards how coaches can learn through interactive practice with the nascent entrepreneurs whom they coach, but more so when interacting with other coaches, and by being members of multiple communities of practice. Through that, the present paper contributes by emphasising the relevance and applicability of the communities of practice concept, where coaches as a group are considered co-creators of knowledge, in studies of entrepreneurial learning.

This paper showed the cross-fertilization between the two communities of practice centred around the entrepreneurship education programme and the student venture incubator. This paper therefore suggests that educators should utilize this opportunity by developing learning activities where the additional learning of the coaches may be shared with their fellow entrepreneurship students as a practical implication of their work. A more general practical implication for education, is that education should prepare students to act in the centre of a community of practice in order to facilitate their own future entrepreneurial learning and the learning of future nascent entrepreneurs entering their community of practice. This may be accomplished by encouraging a similar student venture incubator as the one described in this paper.

The practical implications for policy makers revolve around the importance of facilitating learning within and between communities of practice for student entrepreneurship. As demonstrated by this paper, the community insiders follow multiple learning trajectories and learn both in interaction with each other as well as while coaching. In order to facilitate these adaptive entrepreneurial learning processes, it is important to support the entire student entrepreneurship ecosystem instead of particular student venture incubators or educations as isolated entities. Another practical implication for policy makers is that specialized entrepreneurship educations and general entrepreneurship educations for students from other disciplines may provide synergies to each other through an entrepreneurship community of practice. A third practical implication for policy makers seeking to facilitate communities of practice is to enable learning activities for community insiders and organic development in addition to networking events.

The present paper could provide some very useful data as a starting point for future research into the impact of communities of practice-based approaches on the effectiveness of entrepreneurial learning. Future research on the entrepreneurial learning of community insiders could thereby take into account an adaptive rather than static view of how socially situated entrepreneurial learning occurs through entrepreneurial practice. Also, further research could accommodate an increased level of detail in studies of practices that contribute to learning.

Future research on student venture incubators could furthermore focus on how knowledge from different communities of practice come into play through knowledge brokering. Overall, there is the potential for further research to contribute more to literature discussions of incubation initiatives as a socially situated contextual environment for entrepreneurial learning.

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