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Utilisation of entrepreneurial experiences in student-driven mentoring processes

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ABSTRACT

Following the educational perspective of community of practice, students learn from engaging with people sharing the same interests as themselves. Previous research has shown that students in entrepreneurship education learn from other community members' experiences and have addressed learning outcome from peer mentoring. This study explores how students acting as peer mentors utilise their own entrepreneurship experiences from doing entrepreneurship in peer mentoring of nascent student entrepreneurs. The mentoring is provided by a venture incubator functioning as a community of practice. Five peer mentors in the extracurricular student venture incubator are observed during peer mentoring of a total of nine student entrepreneurship groups and then interviewed about their mentoring practices. Our findings show that the peer mentors' experiences from entrepreneurship studies are utilised in the preliminary stages of mentoring processes, while experiences related to the venture creation processes are utilised later. This implies that when peer mentors relate theoretical knowledge to business experiences from venture creation processes, they help to make both theoretical knowledge and the venture creation process itself more understandable for student entrepreneurs. This study contributes to the entrepreneurship education literature by illustrating how entrepreneurship experiences are utilised in peer mentoring provided through a community of practice.

1. Introduction

Peer mentoring is an important activity in extracurricular initiatives. Extracurricular entrepreneurship initiatives at universities are supplementary programmes or activities in which students, stakeholders, mentors, or other interested actors participate in entrepreneurial activities (Gimmon, 2014). Extracurricular initiatives often involve approaches such as peer-to-peer coaching or mentoring (Gimmon, 2014; Haneberg & Aaboen, 2020), organising business plans or pitching competitions (Watson et al., 2015), and facilitating social networking through various kinds of events and workspaces (Culkin, 2013; Edwards, 2001; Preedy & Jones, 2015). Previous research has shown the effectiveness of extracurricular initiatives in entrepreneurship education (Carpenter & Wilson, 2021; Preedy et al., 2020) and on increased entrepreneurial intentions (Almeida et al., 2019). In the context of extracurricular initiatives, explorations of the role of students as peer mentors for nascent student entrepreneurs are particularly relevant (Wright et al., 2017), since the mentoring is based on peer mentors' sharing of entrepreneurial experiences.

In relation to entrepreneurship, mentoring is a support mechanism for developing a personal identity as an entrepreneur (Gimmon,

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2014; Rigg & O'Dwyer, 2012), entrepreneurial skills in the early stages of new venture creation (St-Jean & Audet, 2012), and networking abilities (Haneberg & Aaboen, 2020). These are important areas in which peer mentors have some recent experience, while nascent student entrepreneurs have little to no experience. Previous research has explored how mentoring should be organised to support development and learning (Hägg & Politis, 2017). Research on mentoring processes in entrepreneurship also finds and uses the exchange of academic skills as part of the mentoring process (St-Jean & Audet, 2012).

However, there have been calls for more research regarding how experiences are used in educating entrepreneurs (Kubberød et al., 2018; Maritz, 2017). Even though research has explored the intention of the mentoring (Haneberg & Aaboen, 2020; Nabi, Walmsley & Akhta, 2019) in combination with the knowledge and experiences the mentor has from their own learning-by-doing practice and how peer mentoring situations in which mentors share their experiences and knowledge to nascent students vary based on the relation between mentor and student (Hägg & Politis, 2017), *how* the experiences are used is still understudied. According to Kakouris and Morselli (2020), reflections on personal experiences are applied in later situations in life. Hence, peer mentors can have experiences from own entrepreneurial activity that are highly valuable for both themselves and others, including nascent student entrepreneurs.

The research question in this study is: how are entrepreneurial experiences utilised during peer mentoring of nascent student entrepreneurs? The study contributes to the field of entrepreneurship education by examining what competences and background experiences peer mentors utilise in early-stage entrepreneurship mentoring and how they those experiences are used. Studies of how experiences are used in entrepreneurship education are needed to improve the organisation of peer mentoring in extracurricular initiatives.

The paper proceeds as follows: first, a literature frame of reference on peer mentoring processes as part of extracurriculars is presented. Then, the chosen research design of an inductive in-depth case study of peer mentoring processes is presented. The analysis section presents findings, which are further discussed in the discussion section, followed by conclusions and limitations, as well as a set of implications for research and practice and suggestions for further research.

2. Frame of reference

This section provides an overview of the theoretical perspectives used to frame this study, which includes peer mentoring as a learning activity within extracurriculars functioning as communities of practice.

2.1. Extracurricular initiatives as a community of practice

Extracurricular initiatives can be seen as communities of practice where "groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in this area by interacting on an ongoing basis" (Wenger et al., 2002. p. 4). Thus, developing entrepreneurial initiatives and venture creation is a collective interest for participants in extracurricular entrepreneurship activities at a university. Lave and Wenger (1991) and other researchers within the community of practice stream lean on a social constructivist approach, often referred to as learning as active participation, in their work on situated learning (Illeris, 2017; Kakouris & Morselli, 2020). It describes how people can develop through social support and interaction with others in learning situations (Kakouris & Morselli, 2020). Learning and developing knowledge from participating in this community of practice are therefore dependent on social interaction.

According to Preedy et al. (2020), extracurricular participation is essential for participants, as they experience several activities that support their development of entrepreneurial capability. It also gives them the opportunity for participants to be part of a community of entrepreneurial practice. Through extracurricular activities, participants establish professional and personal relationships with other participants which are important for their learning. "The mentor network […] is conceptualized as a community of practice that provides induction for nascent entrepreneurs for stimulating their learning of how to be, their acquisition of status and identify, and not simply their development of practical skills" (Rigg & O'Dwyer, 2012, p. 319). Activities contributing to networking for nascent entrepreneurs, such as networking events and business advice sessions (Preedy & Jones, 2015) or mentoring and coaching (Gimmon, 2014; Haneberg & Aaboen, 2020) are typical extracurricular activities, in addition to pitching competitions (Watson et al., 2015). Preedy et al. (2020) divide learning from extracurricular initiatives into the three categories: experiential learning, social learning, and self-directed learning. Mentoring is an activity that enhances the two last mentioned categories, as it is based on a social constructivist perspective of learning from others, and mentors can act as facilitators in students self-directed learning processes (Preedy et al., 2020).

2.2. Mentoring roles

From the time *Mentor* appeared in Homer's *The Odyssey*, the term has been used to define well-known learning situations involving support from one practitioner to another (Gibson, 2004). Mentoring is explored and researched within the fields of organisation and management (Ragins & Kram, 2007) and entrepreneurship (Gimmon, 2014). Mentoring has been highlighted as a service often offered in entrepreneurship incubators (Rigg & O'Dwyer, 2012). Experienced entrepreneurs there support nascent entrepreneurs' venture creation processes by sharing their own entrepreneurship experiences. Furthermore, mentoring and other support activities have been explored both as terms and as the processes they entail (Kram, 1983; Ragins & Kram, 2007). The topic of mentoring processes is relatively new in management research, developed from around the early 1980s (Ragins & Kram, 2007). Mentoring differs from other kinds of support activities in that it is personal and situational, and the mentor acts proactively, is available for the mentee, and invests in the mentor–mentee relationship (Gibson, 2004), rather than focusing on other factors and/or subjects. This indicates the situation to

be less formal than, for example, coaching, as mentoring is focused on the mentee's situation and needs. Originally, mentoring in the business and management literature referred to situations in which seniors supported juniors in firms (Gibson, 2004). Mentors had a function in mentee's career by helping the mentee to understand the organisation and their career development and a psychological function in supporting mentees with protection and confirmation, as well as friendship (Kram, 1983). In the present paper, we chose a broad definition of mentoring, such as Hägg and Politis' (2017) description of the process: "The mentorship relation creates opportunities to discuss personal or business-related issues, with primary focus on supporting the student's development as an entrepreneur" (p. 113), meaning that the definition covers what Kram and Isabella (1985) call peer-support, but with one part – the student entrepreneur operating as mentor – giving support to the nascent student entrepreneur. As the mentor is on equal footing with the mentee, peer mentoring provides learning advantages beyond pure academic skills (Terrion & Leonard, 2007). Hence, the aim of the peer mentoring is to share entrepreneurial experiences from recognisable situations and help develop nascent student entrepreneurs' entrepreneurial skills.

2.3. Peer mentoring

Peer mentoring is defined as a mentoring situation where mentors and mentees are similar in position (Gimmon, 2014; Kram & Isabella, 1985). Peer mentors can serve as learning facilitators, supportive coaches, and familiar role models (Kubberød et al., 2018). According to Kram and Isabella (1985), some of the same functions of formal mentoring are provided through peer mentoring, but peer mentoring provides more reciprocity and mutuality. While formal mentoring is suited for nascent employees, as they receive insights from more experienced mentors (Kram & Isabella, 1985), less formal mentoring support, offers the opportunity for a greater amount of relevant support and learning for both parties. For this study, *peer perspective* means that the mentor and mentee are in the same educational system and age group (Gimmon, 2014; Terrion & Leonard, 2007). Results from Santos et al. (2017) indicate that individuals with different levels of experience in entrepreneurship have different characteristics but that nascent entrepreneurs and early-stage entrepreneurs – who are close to each other in the entrepreneurial process – share some.

Support in entrepreneurship peer mentoring tends to be informal and needs-driven rather than formal and university-prescribed (Haneberg & Aaboen, 2020). Nabi et al. (2019) emphasise the importance of a "tailored," rather than general, mentoring approach, which has similarities to the peer perspective on mentoring rather than a hierarchic one (Kram & Isabella, 1985). From the entrepreneurship literature, peer mentoring is found to provide learning advantages beyond pure academic skills (Terrion & Leonard, 2007). Though peer mentoring tends to be viewed as positive, a few potential problems have also been reported. For example, mentees' identities can become influenced by their mentors. The identity that the mentee is influenced to create is not always positive, and a negative identity may hamper the future development and growth of the mentee (Yuan, 2016). A related potential problem of peer mentoring is that the mentee may miss out on some of the social and cultural learning dynamics that would be experienced in other settings if the peer mentoring becomes too focused on the dyad instead of becoming an integrated part of the initiative (Bendickson et al., 2020). Studies of other peer-led learning activities report that students with a positive attitude towards their peer leader tend to develop less critical thinking ability compared to students with lower attitudes (Tuzlukaya et al., 2022).

Certain conditions must be considered and presented if peer mentoring is to enhance learning outcomes. These conditions relate to structuring the mentoring, establishing a trustful relationship, building a psychosocial relationship, and making an entrepreneurial learning outcome available (Hägg & Politis, 2017; Nabi et al., 2019). To accomplish informal mentoring, the mentor and mentee need to establish mutual trust (Hägg & Politis, 2017). Peer mentoring requires creating trust because it involves sharing personal information and ideas with a "stranger," such as in the clarification phases in peer mentoring (Terrion & Leonard, 2007). In informal mentoring, the trust aspect is far more important for the active participation of both parties.

Hägg and Politis (2017) argue that mentors act as bridges to understand the relations between academic knowledge and experiences from practising entrepreneurship in certain fields. This is because the transformation of experiences to knowledge is a social process affected by the situation itself, the people involved, and the activity that takes place (Kakouris & Morselli, 2020). For example, various tools, such as feasibility studies, are often presented by the mentor (Kubberød et al., 2018; Nabi et al., 2019) and mentors help students to understand business-related processes and the feasibility study process (Bell & Bell, 2016). A central element of student-driven peer mentoring in entrepreneurship is therefore the transition of academic skills to an understanding of how and why academic skills are important when creating ventures. Mentors' sharing of experiences and knowledge also facilitates the development of competences including leadership, business development, and entrepreneurial self-efficacy, which can enhance the venture creation process (St-Jean & Audet, 2012). However, how experiences are utilised is underexamined. Therefore, this study aims to identify and discuss how peer mentors' experiences are utilised during the mentoring processes of nascent student entrepreneurs.

3. Method

In order to investigate the research question, *How are entrepreneurial experiences utilised during peer mentoring of nascent student entrepreneurs?*, we designed an inductive qualitative study, since the 'how' in the question is largely unknown in previous literature.

3.1. The context of the data collection

The context chosen for the study is a student-driven extracurricular student venture incubator at a Norwegian university. It offers peer mentoring from present student entrepreneurs at the university to students at the same university who wish to create own ventures but have limited or no entrepreneurial experience. This student venture incubator was first established at the university more

than five years prior to the present study. The setting of the data collection is an organisation that inspires and motivates other student organisations across Norway and Europe to adopt some of the practices in the incubator, including peer mentoring. Hence, the results of this study can be useful to similar initiatives outside the specific case studied and to the universities to which they belong.

The student venture incubator supports student entrepreneurship through several activities. The students involved in it offer activities such as networking and workshops and organise an early-stage funding initiative, but the peer mentoring is the main activity. The student venture incubator's admission is inclusive; the only criterion is that the new venture teams consist of at least one university student. The student venture incubator has always been a fully student-driven initiative. It is administered by the students, who also organise all activities. Initially, students worked without financial support, but the university now funds the initiative with salaries, as they do for other types of student assistants, because of the value the initiative creates in promoting student entrepreneurship and innovation. The incubator is still organised and administered by students, including finding sponsors who finance seed funding initiatives and other activities.

Inside the incubator, the mentors communicate through a digital platform or in-person meetings. Beside practicalities related to organising activities and peer mentoring specifically, the engaged students discuss issues related to the peer mentoring openly to learn and seek advice from each other. Also, tools to use in the peer mentoring processes are available and the incubator offers training for using these tools through internal meetings. These meetings are also used to share experiences and discuss how to improve the peer mentoring.

The process of the mentoring programme in the student venture incubator is as follows: student entrepreneurs register their idea using a simple form on the incubator's homepage. A student responsible for coordinating students and peer mentors communicates the idea to an available and interested peer mentor. Then, an initial mentoring meeting is set up, in which the mentors and student entrepreneurs meet and discuss and settle on what topics and priorities are the most important for the student entrepreneurs. The meeting also clarifies the student entrepreneurs' expectations for the mentoring. All the processes included in this research were of nascent student entrepreneurs or groups of student entrepreneurs who started their mentoring process in the first mentoring meeting observed and presented in this paper.

The mentoring is organised as peer mentoring, with students helping other students, meaning that students with experience of student entrepreneurship provide informal mentoring to nascent student entrepreneurs. All peer mentors were current students at the university when they worked as mentors. The mentoring programme is seen as a low-threshold initiative, in which students who have a genuine interest in entrepreneurship and mentoring engage. The programme itself calls the mentors "buddies with experience," which

Table 1
Overview of the five mentors in the embedded cases.

	Mentor characteristics				
	Study back-ground	Venture creation experience	Work experience beside Venture creation	Experience from peer mentoring	Description of teams and ideas mentored in this study
Mentor A	Master's in engineering, now student at a one-year study programme	Started business in 2019, not operative	Military	Has been peer mentor for approximately one year Has been given peer mentoring earlier	- One student wanting to develop a digital solution for firing ranges - One student with a book/ publisher idea
Mentor B	Bachelor's in economics and administration and ongoing master's in entrepreneurship	Started first business in 2015, one operative business now	Assisted family business from childhood	Has been peer mentor for one–two years No experience of being mentored	- One student wanted to develop a heat mask - A team of six students wanting to develop a drone with specific technological solutions
Mentor C	Master's in globalisation and ongoing master's in entrepreneurship	Started a business during the VCP that was operative for six months	Business development Youth economist work	Has been peer mentor for one-two years No experience of being mentored	- A team of three people had an idea about gamification of picking up litter - One student with an idea of creating an app to connect youths to businesses - One student wanted to start a project for co-creating an exhibition
Mentor D	Bachelor's in social sciences and sports science and ongoing master's in entrepreneurship	Working in operative VCP business from 2019	Not mentioned	Has been peer mentor for approximately one year No experience of being mentored	- A team of three students wanting to create a service that helps canteens to reduce waste and leftovers
Mentor E	Master's in engineering	Started own business in 2017, still operative	Not mentioned	Has been peer mentor for approximately one year Has been given peer mentoring earlier	- One student with idea about web-based solution that could help find recipes based on what food you have available

also identifies their programme as peer mentoring. Peer mentors and mentees arrange the mentoring support themselves. Mentoring is mostly organised as physical or digital meetings, but mentor and mentee can also have contact through phone, e-mail and chat functions. Matching mentors to specific student entrepreneurs or groups is done in one of two ways: an administrator from the student venture incubator asks if any of the mentors wish to take on a particular case based on their own interests, or the mentors are assigned the group directly.

3.2. The peer mentoring activities in the setting of the data collection

For the present study, it is primarily the peer mentoring that was of interest, and the case investigated is therefore the peer mentoring activities in the student venture incubator. The selection of the case peer mentoring in the student venture incubator enables us to achieve great understanding of the critical phenomena (Stake, 2005) of utilising experiences during peer mentoring. In order to balance breadth and depth in the examples of peer mentoring studied, the processes of all five mentors were studied as embedded cases. Three of the five peer mentors were mentoring more than one student entrepreneur or group, resulting in nine peer mentoring processes in total for the data collection. This allowed the opportunity for insight into how mentors adjusted the process to students or student groups with different challenges. The mentors were chosen by certain criteria: in addition to venture creation experience, all had one year of mentoring experience. Including mentors with a variety of study background and work experience provided opportunity to explore if, and how, diverse backgrounds affected the mentoring situation. The mentors' characteristics are shown in Table 1.

Some of the mentors had experience from the university's own Venture Creation Program (VCP). The relationship between that study programme and the student venture incubator programme is close, and therefore the tools and methods for early-stage venture creation were quite similar between the two. Also, the process of being mentored was presumably known to the students from the entrepreneurship study programme, even if they had not been mentored themselves by the student venture incubator but instead had similar experiences in the study programme instead. Since the selection criterion was first-time mentoring and not specific fields or business ideas, the selection of processes gave us a diverse sample of student venture ideas from different fields and sectors and of peer mentors with divergent backgrounds and interests.

3.3. Collecting data about the peer mentoring processes

In order to capture the peer mentoring processes, we both observed the peer mentoring meetings of each process and conducted interviews at the end of the processes to reflect on the activities in the meetings as well as the events that took place between meetings. It was important to capture the mentoring process, since the utilisation of experience may change over time. Capturing activity over time makes it possible to understand consecutive activities and developments during a process (Van de Ven, 2007; Pettigrew, 1997), as well as interwoven activities and experiences (Mead & Schubert, 1934). The first data collection took place during the autumn of 2020 and was organised as a non-participant observation. Meetings were hold at the incubator's own office. The student venture incubator and the involved mentors and mentees gave their consent to be observed. As mentoring processes can happen outside planned meetings and meetings can be held on short notice, our observer was not able to participate in every step of the mentoring processes but was given information about ones she had not attended during the next meeting she participated and during the post-observation interviews. The data material from the observations consists of a total of nine first mentoring meetings, six secondmeetings, three third meetings, and two fourth meetings. As an example, in one mentoring relationship, two out of four meetings were observed. The observer then gained insight into the two last meetings through the post-interview with the mentor. The observer did not ask questions or make comments during the mentoring, but did take notes. It was possible to follow up with questions during the mentoring in the post-observation interviews that took place after the last observed mentoring meeting between the mentor and mentee. Each mentoring meeting lasted approximately one to one and a half hours, giving a total of approximately 24 h of observations.

The semi-structured interviews with the mentors after the observations were done for three reasons: (1) As informal mentoring can be less structured and happen through, for example, phone calls and e-mail in addition to the organised meetings, it was difficult for the observer to follow the whole process. The interviews were therefore used to gain insights into the mentoring that was not observed. (2) The interviews were based on what was observed during the mentoring process. Hence, the interviews were used to secure understanding of what had happened through the mentoring processes that was observed. (3) Additionally, the interviewer asked open follow-up questions to the mentors as they elaborated on their own mentoring practice to understand the processes more in depth. The interviews were held after the final mentoring meeting that was observed with each mentor. The five interviews lasted approximately 45–50 min each.

Recordings from the interviews were later transcribed, and these transcriptions, together with notes from the observations, were the foundation for analysis. The data material from the observations counted a total of 18 pages of notes in form of keywords and short summarising sentences, in addition to the observer's sensemaking comments about the keywords. The interview transcriptions totalled 28 full written pages. The 24 h of observations and approximately 4 h of interviews amounted to 23,034 words analysed:16,588 words from the interview transcriptions and 6446 words from the observation notes. The data collector student assistant who did the data collection has been accessible for the researchers and clarified possible misunderstandings or uncertainties related to the material.

3.4. Analysing the mentoring processes in order to investigate the utilisation of experiences

Gioia methodology is based on building theoretical subcategories, theoretical categories, and aggregate theoretical categories based on first-order codes from empirical data. In this way, Gioia methodology gives a rigorous inductive approach to data in research on

social constructions, such as work life processes (Gioia et al., 2013). Hence, we argue that this methodology is suitable for studying the utilisation of experiences in mentoring learning processes. The choice of an inductive approach was made based on the lack of literature on utilisation of experiences in mentoring. Hence, it was necessary to identify and categorise the kinds of experiences utilised in this specific case before identifying how experiences were used.

Both observation notes and interview transcriptions were read carefully and open-coded following the approach of Gioia et al. (2013). Codes that were related to the utilisation of one's own experiences were then listed, which was the foundation for the Gioia analysis. When the codes were sorted, and similarities and differences were addressed, the codes were grouped into categories of when mentors used their own experience in mentoring. By using the Gioia methodological strategy, we created five theoretical sub-categories, three theoretical categories, and two aggregate theoretical categories based on the first-order codes from the observation data. In Fig. 1, examples of situations in which experiences were used are linked to the categories. As the literature has addressed several activities providing learning through venture creation, the first-order codes were reduced to groups of theoretical subcategories describing what kind of activities the experience came from. When further looking at these subcategories, it was possible to differentiate between competences that were learned from the process of doing entrepreneurship and competences acquired through the process by learning about topics. This led to the three theoretical categories that were later aggregated into two theoretical categories. As a next step, the mentors' reflections on their mentor role from the interviews were analysed, systemised, and connected to the findings from the Gioia analysis. This made it possible to see if – and how – there is coherence between how mentors used their own experiences and their reflections on how – and why – their experiences were utilised in mentoring student entrepreneurs.

The data analysis followed Gioia methodology, which provides a rigorous inductive approach to data in research on what is defined as social constructions, for instance work life processes (Gioia et al., 2013). Furthermore, we increased the credibility (Lincoln & Guba, 1985) through prolonged engagement by recruiting an observer that was involved with activities in the student venture incubator besides the observation. Hence, the observer was familiar with the mentoring context and could specifically focus on the mentoring processes itself. Also, the researchers concluded that the presence of a student assistant that was familiar with the mentors affected the mentoring processes and all participants' behaviour less than the presence of the authors would have. By capturing the processes through interviews and observations, we were able to obtain the same information through different sources, which strengthened the results further (Denzin, 1978).

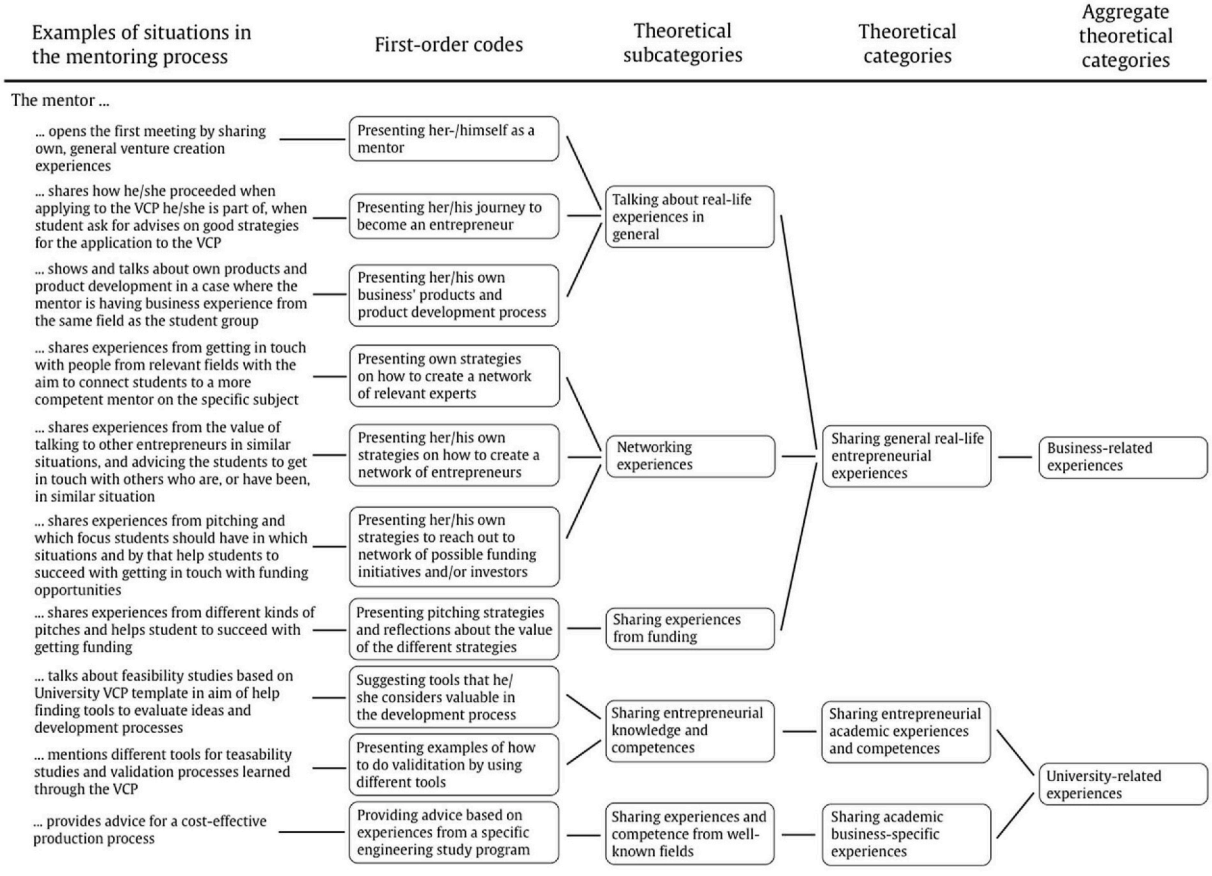

Fig. 1. The evolution of theoretical constructs using the Gioia method of data analysis (Gioia et al., 2013).

4. Analysis

This section presents the findings of the analysis of the student venture incubator. First, the Gioia analysis of experience-sharing from the observations of entrepreneurship mentoring is presented in Fig. 1. In the following three sub-sections, the peer mentors' reflections on their own mentoring processes and observed practices are presented categorized by how they use their experiences in mentoring situations. Additionally, in these sub-sections, the theoretical categories from the Gioia analysis are connected to the observed practices and mentors' reflections.

As illustrated in Fig. 1, peer mentors used experiences to give advice and to present themselves and/or various mentoring subjects to the student entrepreneurs. These experiences were presented as two main aggregated categories: (1) advice based on business-related experiences and (2) advice based on university-related experiences. The business-related experiences that the peer mentors shared were related to networking processes, funding, and the entrepreneurship journey in general. The experiences from university-related learning situations were found to be related to the mentors' study background of both entrepreneurship education and specific professions.

4.1. Initiating the mentoring process through feasibility studies

The peer mentors agreed on the most important experiences to share. This included the experiences from feasibility studies evaluating the market potential and value of the product or service that the student entrepreneurs want to create. There was a collective agreement about the importance of the mentors' knowledge of entrepreneurial approaches. The methods based on knowledge gained from the university-driven VCP were primarily used at the beginning of mentoring new students and were clearly related to the competences the mentors gained from the master's programme in entrepreneurship. The students from this programme had implemented models and methods from their studies as a natural part of the first mentor sessions. Peer mentors from outside the VCP had learned the basics of these tools from other mentors in the student venture incubator and considered implementing these tools in a first-time mentoring as valuable:

> […] In a mentoring-onboarding process [in the student venture incubator], […] some subjects were pinpointed as ones that should be mentioned in every first mentoring meeting. It's information, for example, about the programme and what we offer and funding opportunities. But I never discuss funding specifically before I have an impression that the students doing feasibility studies properly and that the project is something to build on.
>
> (Mentor A)

A main issue the mentors wanted to handle was that student entrepreneurs are often narrow in their focus when they search peer mentoring support. Therefore, it is a collective agreement inside the student venture incubator to start the mentoring processes with this subject. Mentor A, who had not participated in university-driven VCP, explained in the interview how much their own experiences of being mentored had affected their mentoring practice in this field:

> […] I could relate to much of what they [the student entrepreneurs] had been through. I have experienced it. I can hardly remember a first-time mentoring meeting where I have not sent a feasibility study template after [the first meeting]. That is sort of the first step. (Mentor A)

The knowledge they shared with the student entrepreneurs included the importance and value of using the tools and doing the tasks they were encouraged to do. Some of the mentors specifically pointed out the importance of how this knowledge encouraged the development of the entrepreneurial mindset:

> It is a quite typical case […] that "engineering guys" see their case as something they are going to build. In my opinion, from mentoring engineering students, what I felt was the most valuable contribution was the business development mindset.
>
> (Mentor D)

This was a crucial point that pervaded the remaining mentoring processes, too. Even though the student venture incubator offers mentoring on funding, networking, and in some cases also more specific professional help, the mentors were all focused on the general understanding of the entrepreneurial business development and mindset first and foremost. In addition, the mentors used their own experiences from venture creation processes and earlier mentoring experiences to consider what focus they should adopt during the mentoring process.

4.2. Relevant experiences to recognise student entrepreneurs' situations

Despite the seemingly collective agreement on the importance of helping the student entrepreneurs to understand the decisive "first step of the process," there were some differences among the peer mentors in what they thought and felt were their most valuable contributions in the mentoring beyond the first stage. The mentoring often took certain directions based on what the student entrepreneurs wanted from the mentors and meetings, even if it was not clear to them what the students wanted help with:

> […] chiefly, it was just about helping to get some structure on how to move further [with the development]. It's about framing the development and perhaps working with user testing [in this case]. (Mentor B)

The interview data indicates that the mentors decided what problems or subjects they should focus on based on where they thought the student entrepreneurs were in the process. The mentors argued that these decisions were made based on their own experiences with venture creation processes and earlier mentoring experiences rather on than simple decision-making. Mentor C explained this using an example from mentoring on creating a business model:

> I think that quite a lot think it is difficult to take the next step and create a business model. […] For me, it concerns identifying the users or consumers of this concept and trying get them [the student entrepreneur] motivated to speak with these people. That is what I consider to be the first step […]. (Mentor C)

4.3. Relevant mentor experiences in networking, funding, and business-specific issues

Besides continuing the development of a general understanding of business and market development, the Gioia-analysis showed that there were also shared experiences more specifically related to networking and funding. Networking experience and experience related to product and business development processes were often presented as answers to direct questions from the student entrepreneurs or given in discussions. Mentor B, who had a case in which networking was one of the main subjects in one of the meetings, found that sharing networking experiences was a relevant way to develop the student entrepreneurs' understanding of the importance of business strategies and feasibility studies. In the meeting, Mentor B mentioned how contact with relevant people in the same market segment helped them to give up a bad business idea. This statement from the mentor explains how valuable business-related experiences from actually doing a full feasibility study helps students understand the entrepreneurial road they have started on or are considering starting on. Mentor E used their own experiences from pitching to help the students succeed in a funding process. It was also observed that mentors in several cases helped the student entrepreneurs fill in a form for search funding from a student venture incubator partner. Several mentors said in the interviews that they had applied for this kind of funding themselves or helped students with this application earlier.

The experiences that the mentors had from their own networking processes were seen as valuable in getting the students or student groups to the next step in the process. The mentors pointed out the importance of the student venture incubator itself, since it is possible to contact the right people both inside the student venture incubator or university and outside with the relevant business knowledge to develop their product or service. In these processes, the mentors often used their own networks, with the aim of motivating the students to take "the next step":

> I proposed people who could help them. Gave them contact information to people I knew about that knew more about it than I did then. It happens often that you don't know the answers to their [the student entrepreneurs'] questions. Then you can talk to other mentors or […] recommend someone they can talk to. (Mentor E)

It was noted from the observations how the mentors focused on connecting student entrepreneurs to relevant network actors. In one case, the mentor mentioned another peer mentor who knew something about bylaws. In such ways, the mentors use their own network experiences to connect the student entrepreneurs to other mentors with more relevant backgrounds and experiences. Their knowledge of the other peer mentors' backgrounds was important in connecting their student entrepreneurs to those with relevant experiences. This indicates that the peer mentors' experiences from networking were a basic competence that was utilised to connect, and teach student entrepreneurs to connect, to other relevant people in the entrepreneurial ecosystem.

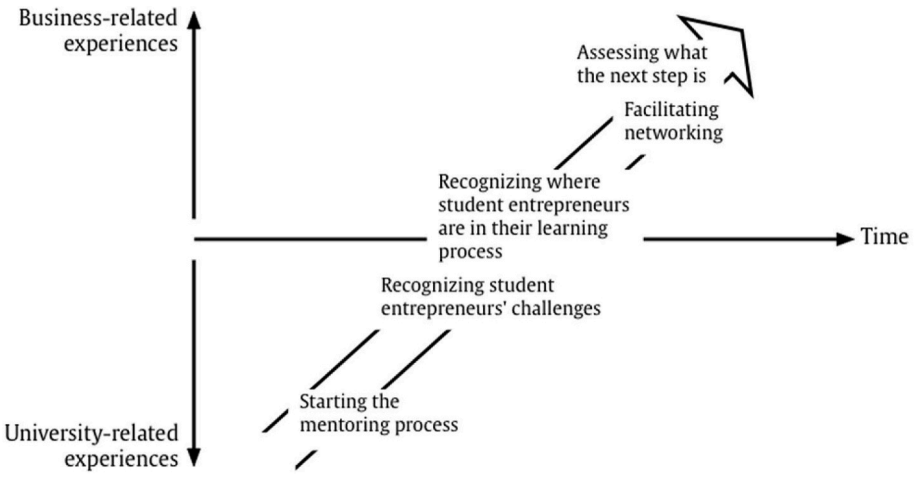

Fig. 2. The use of experiences during mentoring processes.

4.4. Analysis summary

Through our Gioia analysis, we identified what kind of experiences were shared during the mentoring by peer mentors to student entrepreneurs. We found that advice provided in mentoring situations was based on business-related experiences, including those based on institutional and specific learning situations. The business-related experiences that the peer mentors shared were related to networking processes, funding, and the entrepreneurship journey in general. Regarding the experiences from institutional and specific learning situations, we found that these were related to the mentor's study background, both in entrepreneurship education and in specific professions.

From both the observations and the mentors' reflections about the peer mentoring in the interviews, a clear connection between the two aggregate theoretical categories of how the experiences are used in mentoring situations was found. Experiences of utilising tools were shared directly in relation to specific tools for product and business development processes, but they were also used in situations where the mentoring was concerned with networking, funding, and business-specific situations. Utilising tools from study programmes was a general and recurring topic across the analysed relationships. Furthermore, the mentors brought other "services" into the mentoring meetings, such as advice about funding, networking, and specific business competences. Hence, the advice was chiefly based on business-related experiences, which was less connected to experiences from study programmes, summarised in Fig. 2.

5. Discussion

In the case studied in this research, mentors' familiarity with the challenges of entrepreneurship based on experiences was fundamental to the peer mentoring (Gimmon, 2014; Terrion & Leonard, 2007). Mentors act as bridges in the process of understanding the relationship between academic knowledge and entrepreneurship practice in certain fields, similar to Hägg and Politis' (2017) and Haneberg and Aaboens' (2020) findings. They also use their experiences to develop the mentoring relationship, which helps them to do effective and informal mentoring and provide both professional and psychological support (Kram, 1983) to the student entrepreneurs. This indicates how mentoring support is essential in making the student-driven incubator work as a community of practice (Wenger et al., 2002) for student entrepreneurs who learn entrepreneurship by doing entrepreneurship and developing both their social and self-directed learning (Preedy et al., 2020). The present paper complements previous research in exploring how this is done. Mentors did connect academic knowledge with experiences from using it in diverse ways based on the situations and steps in the student entrepreneurs' learning process. This is discussed further in the upcoming sub-sections.

5.1. Utilisation of experiences to kick-start the mentoring process

Like Nabi et al. (2019), we found that different tools that are utilised in the process of connecting academic knowledge and experiences from practising entrepreneurship were presented by the mentor early in the mentoring process. The tools that the mentors presented at the beginning of mentoring were largely traceable to the venture creation programme which was held at the same university as the student venture incubator. In this study, the formal knowledge and competences and the "services" the mentors could provide were not separated from the experiences the mentors had in using them. Instead, they were presented in clear connection to these experiences.

Tools such as feasibility studies were introduced early in the mentoring collaboration. Peer mentors argued that this was done based on a common opinion among them that it is an effective and proper approach to the mentoring process. Earlier studies have shown that mentors helped students to understand business-related start-up processes and the feasibility study process (Bell & Bell, 2016). Our analysis supports this and indicates the importance of academic knowledge combined with the experience from adopting this knowledge, similar to the experience-based learning approach of doing venture creation as an effective way of learning entrepreneurship (Pittaway & Cope, 2007; Politis, 2005). The mentors described the process of introducing and making the student entrepreneurs use these tools as fundamental for their learning process and thereby also for the mentoring process. Experiences from learning and starting to use the tools can therefore be argued to be fundamental in kick-starting student-driven peer mentoring.

5.2. Utilisation of experiences to recognise and acknowledge student entrepreneurs' situations and challenges in the entrepreneurial learning process

A notable finding from our study was that peer mentors utilised their own experience of using tools from study programmes to recognise the situation that the students were in by knowing that the tools were needed. The mentors followed up on how student entrepreneurs' learning processes developed and recommended tools for the process. This was done by using their own experiences related to how to use the tools. Also, mentors explained the value of using the tools in an early stage of the venture creation process. This can be argued to be a follow up on learning about the business-related start-up processes and the feasibility study process, as Bell and Bell (2016) discuss. When the conversations in mentoring were centred around typical venture creation situations and "what to do next," mentors often recommended further use of tools and presented situations from their own experiences using them. Hence, the business-related experiences using these tools were presented in a different way in these situations compared to the first mentoring meetings. The mentors emphasised how student entrepreneurs needed to develop the competences needed for building entrepreneurial career, similar to Kram's (1983) findings on how mentors can have both career and psychological support functions. The mentors gave their recommendations based on both knowledge about what is needed to know to develop own ventures, but also their own experiences.

Another notable finding from our analysis was that mentors shared more business-related experiences when the discussions and conversations concerned challenges the student entrepreneurs faced, such as feeling uncertain when contacting people. Hence, this finding indicates that peer mentors are more willing to share individual and personal experiences with the student entrepreneurs in the later stages of mentoring. Hägg and Politis (2017) and Mansoori et al. (2019) argue that mutual trust between student and mentor are important in informal mentoring processes, and our analysis indicates that the learning process develops through a gradual increase in peer mentors sharing experiences. Our findings suggest that mentors gave the student entrepreneurs psychological support by being open about their own experience when the student entrepreneurs opened up about their concerns. Kram and Isabella (1985) emphasise how peers give greater psychological support than formal mentors. In this study, mentors gave this support by opening up about their own experience.

5.3. Utilisation of experiences to recognise, understand, and reflect on next steps

Haneberg and Aaboen (2020) found that support in peer mentoring tends to be informal and needs-driven rather than formal and university-prescribed. The present study confirms these findings and complements them by showing that the focus on prescribing tools that were utilised in combination with experiences in early mentoring was phased out as the mentoring developed. In other words, the tools from study programmes had a fundamental role in mentoring, but their importance seemed to fade over time. However, the tools were gradually replaced with more open and honest business-related experiences, such as in the example of the mentor who explained how they met a person who helped them realise that their idea was poor. In this later phase of the mentoring, experiences of venture creation seemed to be more important in the mentors' choice of pushing the students forward or holding back and working on the current state for a longer time. In these contexts, business-related experiences seemed to be essential in helping the students reflect upon their own state in the process and their readiness. Mentors mentioned feelings and intuitions when they reflected on how they proceed in mentoring. Again, this requires a trusting relationship between mentor and student entrepreneur (Hägg & Politis, 2017). From this study, the relationship developed with the increase in sharing business-related venture creation experiences.

5.4. Utilisation of experiences to develop student entrepreneurs' networks and networking competences

When networking and related subjects such as funding and pitching were the main subject of mentoring, business-related experiences were used, and academic competences and knowledge were almost invisible. The networking subject was introduced late into mentoring. Compared to previous research on networking as an incubation service (Haneberg & Aaboen, 2020; Preedy & Jones, 2015), one notable finding from our analysis was how networking experiences were important in mentoring in three different ways. First, it was important to teach the student entrepreneurs how and why they should network. Second, the experiences of networking gave the mentors opportunities to connect student entrepreneurs to other network actors they saw as relevant for the student entrepreneurs' further development. Third, networking experiences helped the peer mentors seek relevant academic and personal knowledge from other peer mentors and network actors to develop their own knowledge with the aim of giving the student entrepreneurs the most relevant career help (Kram, 1983) as possible. Again, the aspect of needs-driven and informal mentoring (Hägg & Politis, 2017; Haneberg & Aaboen, 2020) can be connected to not only the importance of the mentors' experiences but also peer mentors' search for new knowledge and competences based on other mentors' experiences.

5.5. Practical implications

This study has implications for both overall university-driven entrepreneurship education and specifically student venture incubators. It emphasises how knowledge about and experiences in utilising tools learned from university entrepreneurship studies are fundamental for further mentoring in entrepreneurship and that students acting as peer mentors are able to use these to guide the mentoring. Our findings suggest that peer mentors need fundamental theoretical knowledge about venture creation in the beginning of peer mentoring processes. Having a collective agreement about the starting point of the peer mentoring processes makes the mentors secure about their own peer mentoring, and our results imply that this makes them more self-confident about sharing more personal experiences later in the mentoring process. Hence, extracurricular initiatives offering peer mentoring must ensure peer mentors have these competences before starting peer mentoring based on solely business-related experience. This knowledge can be learned through other peer mentors for those who do not have these competences from formal education. However, the extracurricular initiatives should at all times have students with formal competences in their organisation. A continuous collaboration between university-based entrepreneurship programmes and the extracurricular is therefore necessary. Also, the peer mentors' utilisation of experience connected to the specific situations identified indicates that peer mentors need diverse experiences for helping the student entrepreneurs in different situations. Hence, peer mentors need both kinds of experience. Peer mentors do not necessarily need to be experts but do need to be able to utilise the combination of experiences.

5.6. Limitations

The data used in this study were limited to observations of five peer mentors' mentoring processes in addition to interviews with them. The study is based on one specific extracurricular mentoring programme at one specific university and students with backgrounds from one specific study programme that have a special role in the student venture incubator. Even though the homogeneity of the cases was beneficial for the research design, it may also overemphasise tools that may be less important in other contexts. However,

given that other extracurriculars' peer mentoring processes share similarities to the case studied, insights from this specific case have value for other extracurricular student venture incubators and similar learning situations.

5.7. Further research

From the findings in this study, several suggestions for future research are possible. First, though this study adds to previous literature on how peer mentoring tends to be organised and for what reason, research on student entrepreneurs' learning outcomes from the mentoring processes is necessary to identify how peer mentors' experiences support the students' learning. It would be interesting to identify additional nuances based on differences in study programmes and learning situations in how to utilise entrepreneurial experiences in specific parts of mentoring processes. A different but related suggestion would be undertaking in-depth studies of peer mentors and other actors with support functions who share experiences in other entrepreneurship education initiatives. We also suggest studying mentorship dyads with the purpose of investigating the learning outcomes for both student entrepreneurs and the students acting as peer mentors, to gain broader insight into the relevance of experience-sharing as an educational method within entrepreneurship education.

6. Conclusion

The present paper explores how entrepreneurial experiences are utilised by peer mentors in mentoring nascent student entrepreneurs. This was done through a case study of mentoring processes in a student venture incubator organised as an extracurricular at one university. From our findings, we argue that different kinds of experiences and how these experiences are used are based on the stage of the mentoring and the situation of the mentees. The analysis suggests that peer mentors utilise experiences both to establish a mentoring relationship and to recognise student entrepreneurs' challenges and situations to adjust the mentoring.

Regarding the kinds of support and functions the peer mentors have in mentoring student entrepreneurs, our findings support previous studies in which academic and business-related entrepreneurship experiences are shared in mentoring situations (Hägg & Politis, 2017; Haneberg & Aaboen, 2020; Kubberød et al., 2018; St-Jean & Audet, 2012; Terrion & Leonard, 2007). The peer mentoring is based on the introduction of venture creation tools (Kubberød et al., 2018; St-Jean & Audet, 2012) and the student entrepreneurs' needs (Haneberg & Aaboen, 2020). The findings in the present paper also support previous studies regarding more experienced students as trusted peer mentors (Terrion & Leonard, 2007) who recognise student entrepreneurs' challenges and develop mutual trust by acknowledging these challenges. The peer mentors studied gave student entrepreneurs career and psychological support throughout the processes in a way similar to Kram and Isabella's (1985) findings and helped students both in what Preedy et al. (2020) define as self-directed learning situations and social learning situations. Therefore, the student venture incubator functions as a community of practice (Wenger et al., 2002), in which more experienced students support nascent student entrepreneurs' experience-based learning processes through the use of their own similar experiences.

Our paper expands on previous research by presenting an in-depth analysis that describes how experiences from peer mentors' study backgrounds and business-related venture creations are utilised in different phases of the mentoring to help overcome nascent student entrepreneurs' challenges. Therefore, the present study contributes to previous research on how student-driven initiatives can function as communities of practice (Wenger et al., 2002) such as student venture incubators and contribute to student entrepreneurs' learning (Nabi, Walmsley & Akhta, 2019). Based on further analysis of the two aggregate theoretical categories – general business-related experiences and experiences from university-based learning situations – established in the Gioia analysis, the paper presents and discusses how tools that have been learned and experienced during entrepreneurship education may be utilised to mentor other students through mentoring processes (Kakouris & Morselli, 2020). This study contributes to the field by illustrating *how* experiences are utilised, compared to previous research that has primarily focused on *what kind of entrepreneurship experiences* are shared (Kubberød et al., 2018; Nabi et al., 2019; St-Jean & Audet, 2012) by *who* (Wright et al., 2017; Terrion & Leonard, 2007; St-Jean & Audet) and *as what kind of* supporting *mechanism* (Gimmon, 2014; Hägg & Politis, 2017; Haneberg & Aaboen, 2020; Rigg & O'Dwyer, 2012; St-Jean & Audet, 2012) in addition to the outcome from peer support (Kram & Isabella, 1985).

Author's statement

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