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## When theory is invisible and hidden in practice: a qualitative study of one entrepreneurship course

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**SAMANDRAG** Det finst i dag mange ulike tilnærmingar til å undervise i entreprenørskap. Ei aktuell tilnærming er å undervise entreprenørskap gjennom å nytte ein praksisbasert metode med innslag av handlingsorientert teori. Denne tilnærminga inneber at det teoretiske innhaldet kan vere meir eller mindre usynleg for studentane, men at dette skal oppdagast gjennom eksperimentelle framgangsmåtar. Dette kapittelet har som mål å undersøke korleis entreprenørskapsstudentar opplever undervisning der ein lærer handlingsorientert teori gjennom eit praksisbasert kurs. Vi gjennomførte seks personlege intervju med seks kursdeltakarar og gjorde ei deduktiv tematisk analyse for å undersøke funna. Analysen avdekkja to hovudtema som vi såg nærare på: balanse mellom teori og praksis, og nytte i det verkelege liv. Funna våre tyder på at studentane som vert intervjuja i all hovudsak bifell det å lære handlingsorientert teori i praksis gjennom eit slikt kurs. Sjølv om studentane vert noko perplekse over at teorien er usynleg, viser alle utanom ein student at dei likevel er bevisste på at teori er ein del av kurset. Vidare syner dei evner til å reflektere over og sjå samanhengar mellom det dei har lært gjennom kurset, og korleis dei kan gjere nytte av dette i det verkelege liv.

**ABSTRACT** Today, entrepreneurship education embraces a diverse variety of approaches to teaching. One alternative approach is the concept of teaching entrepreneurship by using a practice-based approach grounded in actionable theory. This approach implies that theoretical content can be more or less invisible to students, but is to be discovered through experimental practices. This article aims to study how entrepreneurship students perceive the experience of learning actionable theory through a practice-driven course. We conducted six face-to-face interviews with six course participants and used a deductive thematic analysis to review data. The analysis

revealed two key themes of importance: the theory-practice balance and real-life application. Our findings suggest that, by and large, the practice of actionable theory finds approval among the students interviewed. Although the invisibility of theory does perplex the informants, all except one student demonstrated awareness of theory being present in the course. Furthermore, they display abilities to reflect upon and make connections between what they have learned during the course and its real-life applicability.

**KEYWORDS** practice-based entrepreneurship education | actionable theory | theory-practice balance

## INTRODUCTION

After entrepreneurship was recognized as a significant economic force of the economy around the world about three decades ago, entrepreneurship education also began its salient expansion. The number of entrepreneurship-related programs and curricula has exploded since then (Kuratko, 2005). Entrepreneurship has been selected as one of the eight key competences for lifelong learning by the European Union. It is seen as a fundamental attribute for each individual in the context of a knowledge-based society (European Commission, 2007). In Norway, educational institutions from primary schools to universities offer entrepreneurship as a pedagogical component to provide society with future workers and entrepreneurial-minded citizens (Kunnskapsdepartementet, 2009).

At the same time as we experience a remarkable interest in the phenomenon of entrepreneurship at national levels and globally, demands for relevant and high quality teaching content grow. Accordingly, the role of educators, classroom and teaching approaches are challenged. The domain of entrepreneurship has evolved from studying the traits of entrepreneurs towards a behavioral approach and then to a view of entrepreneurship as a process (Neck et al., 2014a).

On one hand existing dominance of process models and discipline specific mind-sets of educators in entrepreneurship education is no surprise today. On the other hand, the acknowledged uncertainty and ambiguity of the entrepreneurial environment limits the power and effectiveness of the process approach as a teaching means (Neck et al., 2014a). The deficiencies of the entrepreneurship-as-process approach, and a call from entrepreneurship scholars to separate and define the entrepreneurship field from other business sub-fields and legitimize it (Venkataraman, 1997), resulted in a new research narrative – the entrepreneurial cognition approach (Mitchell et al., 2002). This approach takes interest in *why* indivi-

duals make decisions in relation to entrepreneurial actions and *how* they become entrepreneurs, design opportunities, and act on them. It is claimed that the *how* question has been answered by Sarasvathy (2001a), who carried out research into the patterns of how entrepreneurs think. She coined the term *effectuation* to describe how entrepreneurs make decisions in situations with uncertainty.

The effectuation theory became a point of departure for Neck and Greene (2011) who discard the mainstream approach to teaching entrepreneurship as a process and advocate that entrepreneurship must be taught as a *method* (Venkataraman et al., 2012). This approach implies there is a set of practices that help students become entrepreneurial and encourage them to create. Neck and Greene (2011, p. 62) emphasize the fact that entrepreneurship as a method «... forces students to go beyond understanding, knowing, and talking. It requires using, applying, and acting. The method requires practice». One might be deluded that this approach does not rely on theory, though it is quite the opposite; besides the cognitive perspective that provides basis for entrepreneurship as a method, each practice that constitutes the method is firmly grounded in various theories (Neck et al., 2014b). Hence, the theoretical element is an integral part of entrepreneurship education.

Despite the fact that theory is critically important when teaching entrepreneurship, educators are commonly faced with the dilemma of how to make theory interesting and relevant for students. Fiet (2000a) asserts that the difficulty with teaching theory in entrepreneurship class is that there is a likelihood of complaints of boredom from students. To cope with this challenge, as well as to make entrepreneurship teaching relevant and effective, one possible solution could be a proposition to make theory invisible but actionable at the same time (Neck et al., 2014a). In that case, students are not necessarily aware of the name of a theory or even when it is applied.

Presumably, actionable theory will find approval among entrepreneurship students. But what if the opposite occurs, and students are not able to deal with the idea that theory is invisible and hidden? To the best of our knowledge, the concept of actionable theory has not yet been empirically addressed in the context of entrepreneurship education. While the conceptual ideas of actionable theory have been developed by Neck et al. (2014a), less is known about its consequences in practice, for example, its impact on student experiences. We aim at offering a glimpse into how entrepreneurship students respond to actionable theory encountered in a particular setting, a single corporate entrepreneurship course. This study is led by the following research question: How do students perceive actionable theory through a practice-driven entrepreneurship course?

Our qualitative inquiry is an initial study that does not aim at proving or disproving hypotheses or testing theoretical assumptions; rather we sought understanding of students' perception of actionable theory from the generated data. We believe it is critical to understand a student perspective when it comes to «the battle for power and position between theory and practice» (Neck et al., 2014a, p. 8). Thus, we explore topics arising from students' responses and thereby contribute to the limited body of empirical research on the topic, as well as pointing towards fruitful avenues for future research. Given the increasing relevance and diffusion of entrepreneurship education worldwide and current discussions on approaches to teaching entrepreneurship, our findings could have implications for educators and scholars.

## THEORY

### THE ROLE OF THEORY AND PRACTICE IN ENTREPRENEURSHIP EDUCATION

When we look back at how theory and practice have coexisted with one another in the context of learning and education, the dominance of theory-driven work is noted from the outset. Aristotle and Plato assert that intellect precedes practice (Brockbank and McGill, 2007), and a long-lasting dominance of their view has been challenged by Bourdieu (1990) only recently. He claims that Plato's negative representation of the logic of practice aggravated lack of interest in understanding this logic. Moreover, the academic tradition succeeded in questioning the relations between practice and theory in terms of value, where the latter has remained the dominant force.

The same question of value between theory and practice has been widely discussed in entrepreneurship education. In terms of theory, the field of entrepreneurship has been criticized for lacking academic legitimacy and cumulative theory of entrepreneurship, and has borrowed theoretical frameworks extensively from other fields like economics, psychology, and management. Nevertheless, the field is increasingly becoming more theory-driven (Wiklund et al., 2011), and entrepreneurship-specific theories like the individual-opportunity nexus (Shane and Venkataraman, 2000), effectuation (Sarasvathy, 2001b) or entrepreneurial bricolage (Baker and Nelson, 2005) have emerged and gained ground. Accordingly, there is an increasing volume of theory incorporated in teaching entrepreneurship. Some scholars have advocated that it is critical to make use of such theory as the exposure to theoretical content can provide entrepreneurship students with academically rigorous learning experiences (Fiet, 2000b, Kickul and Fayolle, 2007, Neck et al., 2014b)

For example, Fiet (2000b) argues that theory is critical for teaching entrepreneurship, since it is the only way to help students foresee the unknown and emerging future. He proceeds by asserting that the ultimate objective should be a cumulative theory putting the emphasis on learning by doing. When this condition is met, we will be able to accelerate student mastery by using coded language for theory. Thus, practice is not excluded. On the contrary, possibilities for testing scientific theory in practice should be a key part of any entrepreneurship education program or course. It is not enough to theorize about entrepreneurship as a phenomenon, one also needs to incorporate the active and practical aspect in the learning process in order for the students to learn entrepreneurial practice (Gibb, 2007).

Entrepreneurship is one of the most applied business disciplines, indicating that one must do entrepreneurship in order to learn entrepreneurship (Neck et al., 2014a). Entrepreneurship students need to have learning experiences that give insight into the application of theory in real life. Hence, it is essential to teach both the art and science of entrepreneurship by building theoretical knowledge about entrepreneurship at the same time as gaining practical skills through experience (Jack and Anderson, 1999). Learning entrepreneurship through action lets students translate theoretical content into life beyond the educational establishment, and is believed to enhance learning and a deeper understanding of relevance both in professional life and life in general (Fiet, 2000a, Gibb, 2007).

Indeed, theory and practice are intertwined and do not exclude one another. So how does one find the right balance? One alternative solution would be to side with Neck and colleagues (2014b, p. 4) who depart from the norm and suggest making theory invisible, yet actionable. This way of reasoning is in accordance with Fiet's (2000a) assertion that the role of educators is to incorporate theory in entrepreneurship courses not only by exposing it, but through taking action which promotes the mastery of skills necessary to engage and succeed in entrepreneurship.

## **ACTIONABLE THEORY**

The theory-practice matrix in Figure 1 illustrates the evolution of entrepreneurship theory (Neck et al., 2014a). While entrepreneurship education in its initial stages had little theory and relied heavily upon «war stories» from real-life entrepreneurship (the Genesis cell), it has later become more theory-laden with an emphasis on developing students' analytical skills (the Academic cell). The Apprentice cell has high emphasis on practice and is usually associated with vocational training aimed at developing very specific skills. However, strong emphasis on practice is less common in higher education. Neck and colleagues (2014b) argue that there needs

to be a substantial practical component in entrepreneurship courses in order to teach students how to take action in chaotic and uncertain entrepreneurial settings. Therefore, they introduce the Synthesis cell and highlight the importance of practice while still retaining a substantial theoretical content. Accordingly, the Synthesis cell scores high on both theory and practice, and seeks to attach equally high importance to both attributes on the theory-practice continuum.

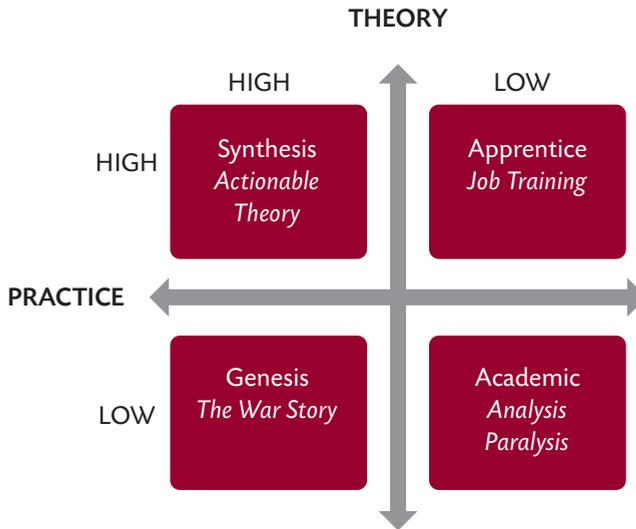


Figure 10.1: Theory-practice matrix. Source: Neck, Green and Brush (2014b)

The main premise of actionable theory is that practice and theory co-exist in harmony. It is not of importance if students know the theory by name. In fact, it is not even important if they know that the theory is even there. The actionable theory strives for the opportunity for «informed application» (Neck et al., 2014a, p. 10). In other words, it is essential that students use and apply theory even if they do so unconsciously. In the university-based setting, the synthesis of theory and practice can become apparent for students through a practice-based approach.

Learning environments grounded in actionable theory, should simultaneously have extensive presence of both theory and practice. This is different from the majority of classroom environments currently used for teaching. By building an environment where practice can occur, one can cultivate bias for action, appreciation for learning through action and comfort with ambiguity; key competences for students in today's uncertain, volatile, and turbulent entrepreneurial environment. Nevertheless, such an environment increases students' actions in order to

learn, and therefore leaves too little time to think deeply about what has just happened (Neck et al., 2014a).

In order to be able to synthesize theory and practice in an entrepreneurial learning environment, opportunity for reflection is of key importance. Reflection is vital for developing knowledge from experience and is, according to Neck and Greene (2011), especially important when facing perplexing experiences, conditions of high uncertainty, and problem-solving. Reflecting upon experiences should enable what Marton and Säljö (1976) characterize as deep-level processing, in which students gain insight by relating previous knowledge to new knowledge. They claim that when students engage in deep learning, they go beyond merely memorizing and reproducing information for assessments. Instead, students will aim to make sense and thoroughly understand the subject matter and how theoretical perspectives relate to each other as well as to the real world.

Reflection has been elaborated on in the cyclic model of experiential learning (Kolb, 1984), as reflection is crucial in the transformation of information into knowledge after an experience. Newly gained knowledge accordingly builds upon prior experience and understanding in a continuous learning cycle. The reflection that takes place in the creation of new knowledge can be individual, but Brockbank and McGill (2007) highlight the importance of enabling reflective learning in group activities as well. They argue that it is essential to view learning as a social process, as individual reflection upon learning is not sufficient in an educational setting. Knowledge and meaning are constructed in a social process with peers and teachers, and reflection through engaging with others is consequently needed to make sense out of experiences.

## **METHOD**

### **DATA COLLECTION**

This study was conducted in Norway after the completion of a university-level course in corporate entrepreneurship for Master's students at the School of Business and Economics, UiT – The Arctic University of Norway. Out of twenty-seven participants involved in the course, six volunteers responded to our call for an interview: five males and one female. During the course, students were divided into four groups to work on challenges, and at least one member of each group was interviewed. Our intention to rely on volunteers is justified by the desire to focus on students who were willing to freely express themselves and supply us with rich and insightful data. It could imply participation in a number of interviews for them as well as sharing sensitive information during those interviews. Certainly, volun-

ter bias suggests that our sample is not representative of the population, and the authors acknowledge this fact. We conducted six face-to-face semi-structured interviews with open-ended questions. Interviews lasted thirty minutes on average and were recorded and transcribed verbatim. The collected data resulted in about three hours in recorded material and twenty-eight single spaced pages of text. The authors did not take part in direct teaching or designing the course content.

## ANALYSIS

Data were analysed using deductive thematic analysis, coding data for a specific research question, and followed a certain procedure depicted by Braun and Clarke (2006). A theoretical thematic analysis was guided by a specific research question. The authors systematically reviewed the data and coded it manually and independently. Each generated initial codes, identified themes, and devised thematic maps individually. In a subsequent step, the authors sat down to revise codes for inclusion; therefore, performing a formative check of reliability (Schilling, 2006). Furthermore, the authors reviewed and refined common themes in order to depict a joint thematic map. A total of two themes were identified. A coherent and concise analysis was conducted and a write-up was compiled around each theme. We make it explicit that the findings of this study do not emphasize the importance of generalizability, and we address this issue in the limitations and implication section.

## RESEARCH CONTEXT

### PRACTICES INVOLVED

Unlike Neck et al. (2014a) who advocate five particular practices substantiated by actionable theory, the course did not embrace them as they are, but rather adapted to the course objective. Accordingly, the students were introduced to several techniques to practice empathy, creation, and experimentation.

### COURSE OBJECTIVE

This course lasted five weeks, and aimed to provide students with practical skills in tackling challenges at the corporate level by employing actionable theory. The course participants, divided into four teams, were introduced to four different challenges, provided by an industry partner. The partner was a provider of ground station and earth observation services for polar orbiting satellites with the head office in Tromsø. The company wished to create and explore opportunities for the

applicability of their remote sensing technology. The focus of the challenges varied from helping commodity traders or equity traders to make better investment decisions with remote sensing images, to predicting macro-economic trends or benefiting commercial organizations. From the outset the course context set was uncertain to students.

## ACTIVITIES DURING THE COURSE

The course was divided into thematic time blocks, each dedicated to one particular practice and respective techniques. Despite this division, the flow of the course was not linear and assumed an iterative nature. Students were encouraged to navigate between the blocks. The first session was dedicated to an immersion in the learning approach used during the course. The main instructor attempted to guide the class through the practice-based approach by facilitating hands-on activities promoting proficiency in certain techniques and telling real-life stories behind each practice and their successful implementation. The second session took place in the head office of an industry partner. Two company top managers presented the company, technology, and outlined the challenges to the class. During successive sessions, each group was asked to debrief about their progress to the whole class. The final session was devoted to the presentations of solutions that the groups had designed throughout the course.

## EMPATHY-RELATED ACTIVITIES

McLaren (2013, p. 4) asserts that empathy represents an emotional and social skill, which «makes us aware of and available to the emotions, circumstances, and needs of others so that we can interact with them skillfully». One of the functions empathy fulfills in entrepreneurship education is helping students to identify unmet needs of various stakeholders in authentic and meaningful ways (Neck et al., 2014b, Neck et al., 2014a). In turn, the unmet need could be the premise of a new product, service or venture. Humans demonstrate inborn aptitude for empathy (Preston and de Waal, 2002) which can increase with training and practical experience (Kouprie and Visser, 2009). A number of different techniques/activities were used to help course participants practice empathy. For example, the «apartment» exercise<sup>1</sup> was used to understand and learn the value of observation.

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1. The students were given a set of pictures of a house unknown to them. The task was to look at it closely and provide insights (e.g., sex, age, occupation, interests, etc.) by telling a story about the person who lives in that house.

Observation, when it is mastered, is viewed as the most valuable source of empathy. Although the observation is challenging and demands a lot of practice, «the most interesting insights can be developed» through practice (Neck et al., 2014a, p. 49). Another technique in relation to empathy is aimed at learning how to properly conduct deep interviews. The students were asked to pair up and interview each other. Several simple rules were imposed on them: avoid open-ended questions, ask «why?» questions at least five times, ask for details, elicit stories and emotions, and take notes. All teams used storyboarding<sup>2</sup> as an interactive and visual medium to communicate the outcomes of the five-week process of working on challenges. These are some of the activities employed to practice empathy.

### CREATION-RELATED ACTIVITIES

Entrepreneurship purports creation of something new of value. It could be a new service, product, process or venture, to name a few. Regardless of the fact that entrepreneurship is primarily taught in a linear and prescriptive fashion, the course was designed to distance from a process approach. Instead, the emphasis was placed on an *effectual* logic (Sarasvathy, 2001a). Students were encouraged to cope with a bias toward one particular solution to the challenges, to make use of resources at hand, and to draw in multiple interested stakeholders (Dew et al., 2009).

Besides learning how to hold an efficient brainstorming session, students did activities directed to break their thinking patterns pertaining to creativity. The exercise «100 uses for a paperclip»<sup>3</sup> intended to strengthen lateral thinking ability. Another exercise, «idea match»<sup>4</sup>, drove at meeting and mating two or more concepts to generate new ideas. More importantly, students were obligated to engage with multiple stakeholders to urge creative approaches and solutions to their challenges.

### EXPERIMENTATION-RELATED ACTIVITIES

Experimentation is indispensable to entrepreneurship. According to Mitchell et al. (2012), entrepreneurial action represents iterative action processes aimed at producing new and useful knowledge of the environment. Furthermore, each action

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2. Storyboarding is a communication technique that visually depicts a stakeholder in action in her or his environment. Collected artefacts are used to illustrate a visual and interactive representation.
  3. This exercise is a well-known brainstorming and creativity challenge that facilitates one's ability to provide uses for the common paper clip.
  4. The students were given image cards of various objects, and were asked to match two or more cards to make new ideas. A short description of what motivated his or her choice followed.

process allows the entrepreneur to reduce uncertainty, which is embedded in the entrepreneurial environment, particularly the task of creating opportunities. In the entrepreneurship education setting, students are encouraged to *act* in order to learn from the action, and then incorporate the learning experience into subsequent iteration (Neck and Greene, 2011).

By including the practice of experimentation into the course, we intended to communicate the value of validating and testing assumptions of every new idea and opportunity (Neck et al., 2014a). Furthermore, when practiced, experimentation aids students in managing uncertainty by taking iterative and collaborative action. The activity «the candle transport challenge»<sup>5</sup> meant to help students understand the essence of experimentation through prototyping. They had a simple hands-on experience of trial and error, learned how to get feedback and improve on that feedback in the next round. With the help of this and other related exercises, the class was able to implement the principles of experimentation over the length of the course. Course participants used prototypes to interact with potential customers and stakeholders, obtain important feedback promptly, and build on that information to enhance prototypes.

## FINDINGS

Key themes emerged from the data revolved around theory-practice balance and real-life application, whether professional or daily. During the analysis, it became clear that the course and learning approach had an impact on students. The majority felt on the rise after the course, expressing positive feelings about the learning experience they went through as well as reaching satisfying results for the provider of challenges. Also, some mentioned that the experience was different from what they had encountered before completing the course. The differences were primarily attributed to the newness to the learning approach, ambiguity, and complexity of the challenges, and course flow. We therefore align our data to unfolding how the key themes played out in the context of our research question as well as their consequences on informants.

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5. The students formed groups and were given the task transporting a burning candle across a water canal set up in the classroom. They were given a special kit of selected materials and twenty-five minutes to build one or more solutions and improve on the transportation time. The best time wins.

## THEORY-PRACTICE BALANCE

Perhaps unsurprisingly, we observed rendering invisible theory to students mostly makes them feel uncomfortable. They seem accustomed to having a lot of theory, and feel this should be a prominent aspect of coursework. Moreover, they prefer theory to be communicated clearly by interacting with a lecturer, using a book or reading articles. Nevertheless, all informants, except one, expressed clear signs of theory awareness and application during the course.

Some informants expressed a lack of theoretical input. One informant justified his need for more theory by a common custom: «I think there should be more. That is what we are used to. (This is) the context that we learn and work within.» Similarly, another informant stated: «So for me, there has been corporate entrepreneurship, and you have to start off with innovation [...] and I wanted theories, because I had innovation courses before, and we had a book and a written exam».

Another type of reasoning for more theory came from an informant who was eager to double the number of lecture-type sessions because of their format, hands-on activities and real-life examples, and interaction with the lecturer. He described this as a different learning experience for him, compared to other courses he had taken during his period of study at the university.

Three informants had previous exposure to this approach of teaching and learning. Two of them displayed a concern for their peers in groups who felt lost in the process. For example, one informant noted that his group members lost momentum in connecting theory to the background, and felt theory recapitulation in the middle of the course could benefit everyone. Another explicitly reported: «I think that some of the others should have had more theory so they could understand how to be a part of the process.» However, this lack of understanding of theory was partly compensated internally. Team members offered or responded to requests to help with theory.

Only one informant felt particularly frustrated about learning outcomes: « [...], because truly I do not feel that I have learned very much here.» Furthermore, this informant mentioned that she had to ask for help from one of her classmates with regard to the flow of process in the course. Going back and forth in the process made her lost, and she would like it to be communicated in a more concrete way.

When it comes to the practical side of the course, five of the six informants favoured the methodology and respective activities and techniques. They were able to apply most of them to a greater or lesser extent during the course. Across informants, the practice of empathy particularly stood out and had the most considerable impact. One informant stated: «But the empathy part, which is so huge ... I have not thought in that type of way before.»

Some felt overwhelmed and even stressed by the scope and complexity of the challenges presented to them and their teams, especially at the beginning of the course. One informant asserted: «Yeah, first of all, the first week I realized I had to let it go. I had to distance myself from it, because I got physically ill from the stress. I got a rash on my face. The stress level rose in a way that I expected but like 10 times more.» The informants listed a number of hardships related to little prior knowledge of the technology, spheres like macroeconomics and finance, and uncertainty in dealing with something intangible. These were the key triggers of their ambiguous emotional state. Nevertheless, the boundaries of their challenges and work scope became comprehensible to them farther into the course.

### REAL-LIFE APPLICATION

The second theme identified through the theoretical thematic analysis relates to the real-life applicability of the course content. When students realize what has been learned can be useful beyond the course context, it may indicate they are making connections between theory, practice, and real-life application. It also implies a deeper-level processing has taken place. Hence, a profound understanding should enable students to see the relevance of the practical and theoretical content for future action in both professional and daily life.

All informants but one expressed they did see actual application of what they had learned beyond the scope of the course. They mentioned start-up ventures, businesses in different sectors, other degree courses, involvement in student organizations, leisure activities, and current working life. These are the examples of the areas where they see potential utility for their recent learning experience. Some had already attempted to apply the newfound knowledge outside the course; one participant described how he had brought the methodology to a soccer meeting: «[...] I could use the methodology to create a tactic. I could first empathize with the group and then we do a prototype and test on the field and go back. There are a few basic principles, and you can apply them to almost anything.»

Another informant reported he applied what he had learned when he recently found himself in a situation where new ideas for an event needed to be developed: «I think I will use it a lot. It doesn't even have to be how to develop a product or prototype. I'm in this student organization arranging [an event] and we were struggling finding an idea and a theme. And I just used the design thinking process to brainstorm and throw the ideas out.» He elaborated on how they ended up building upon each other's ideas (resembling the «idea match» activity) culminating in a result he believes they would have not achieved without the methodology.

Several informants expressed that they could see themselves applying what they had learned in their future professional life, either when working with innovation in companies or as entrepreneurs. One of the informants had a full-time job, while being enrolled in the course, and expressed that he especially found what he had learned about the practice of empathy applicable: «I could really relate it to my daily work. I learned a lot in this course. I like the kind of things I can relate to in my work on a daily basis and this helped a lot.»

The five who endorsed real-life application, appeared to see connections to their previous experience and knowledge from education and working life. Furthermore, three informants had already been through a course with a similar approach, but in a simpler context. One informant explained how several years of work experience and acquaintance with learning-by-doing aided in understanding what took place during the course. Another informant made connections between this course and previous courses in problem-based learning.

Interestingly, there was also an informant who expressed concerns about learning little tangible knowledge overall and did not see any applicability of the content beyond the scope of the course. She elaborated: «I'm trying to find buttons to push and say, hey you have learned this! But I haven't found anything yet. I don't think so. No. Not really. Not yet.» She described enrolling in the course with high expectations and being enthusiastic. However, she expressed disappointment about the learning outcomes and requested more structure, plans, and specific theoretical content.

Accordingly, there is a divided view on the real-life applicability of the course in the same manner as the informants' perceptions of the theory-practice balance. Five out of six informants reported to have reflected upon and connected theory and practice with real-life situations, while the final informant expressed concerns about having learned anything at all that she could apply after the course.

## DISCUSSION

We have attempted in this study to increase our understanding about students' perception of actionable theory. Today, entrepreneurship education embraces a diverse variety of approaches to teaching, and one of them is the concept of teaching entrepreneurship as a method. The method approach embodies a view of synthesizing highly experiential practices and actionable theories. Thus, each practice is grounded in actionable theories. A notable characteristic of actionable theory, according to Neck et al. (2014b), is that it is hidden in practice and can be more or less invisible to students. To look at actionable theory from a student's perspective was our main motivation in conducting this study. Additionally, there is little or

no empirical research examining this issue, to the best of our knowledge. Thus, this study is a first step toward understanding how entrepreneurship students react to actionable theory in a setting of the practice-based course. Our thematic analysis revealed two key themes, which were of importance in light of the research question: the theory-practice balance and real-life application.

Our findings suggest that a teaching and learning approach fostering the practice of actionable theory finds approval among our informants. This is principally because of the practice-based orientation and high-action set-up of the course which kept the students engaged and represented a unique experience for them. All but one informant was satisfied with the results presented to the provider of challenges at the end of the course. Five out of six informants were able to see value and applicability in the activities and techniques that substantiate each practice. With regard to the actionable theory, its «invisibility» perplexed the informants. This could be explained by a well-settled university custom of teaching theory to students in a lecture-type format. At the same time, the majority, except one informant, demonstrated their awareness about theory being present in the course, which is in line with the notion of «informed application» (Neck et al., 2014a).

Our findings suggest that five out of six informants were able to make connections between what they practiced in the course and real-life application. They report, for example, seeing the application of what they have learned to other courses, student organization involvement, leisure activities, and working life. Some have already successfully applied parts of the course content when they found themselves in suitable situations. In line with Marton and Säljö (1976), this may indicate that deeper-learning processes have taken place. Nevertheless, not all six informants share the view of applicability in real life. One student is struggling to see concrete learning outcomes of the course and finds little real-life application of what she learned in the course. This makes an interesting observation as it can indicate that the practice-based approach is not a good fit for everyone, and individual adjustments might be necessary.

## LIMITATIONS, FURTHER RESEARCH AND IMPLICATIONS

While we believe that the results presented herein add to our understanding of actionable theory, we acknowledge that the present research is not entirely beyond reproach. Our research design does have its limitations in terms of generalizability of its findings. For example, small sample size implies that the results need to be interpreted with certain caution. Further research with larger samples would be of value. Another strategy for generalizability could be research conducted in multi-

ple educational contexts. It could offer deeper insight and confirmatory evidence into how students learn theory when it is hidden in practice. We would also advise embracing mixed methods research, which involves the collection, analysis, and conflation of qualitative and quantitative data. We want to draw attention to another limitation – triangulation. The limitation occurred due to time constraints and related to the validation criteria. While the interviews offer initial insights into how students experience actionable theory, future studies will benefit by making use of various forms of data and method triangulation.

We deem that the two themes identified through the thematic analysis could serve as a basis for developing new research questions in the future research. The topic of theory-practice balance is of key importance in entrepreneurship education, as students need to master both the art and science of entrepreneurship. Gaining a more profound understanding of students' real-life application during and after such a course would also be valuable as it may indicate course impact on students' deeper learning.

The findings of this study suggest a number of implications for educators. First, they may encourage educators to ponder on and critically reflect on their pedagogical thinking and teaching practices. Undeniably, theory is essential in teaching entrepreneurship, but probably a new set of competences and content improvements are needed to communicate its value. Secondly, the study may provide provisional insights for educators about how to enhance students' engagement and make the acquired knowledge applicable. However, educators must be cautious on making this process smooth for students, who are usually very much accustomed to mainstream approaches.

## LITERATURE

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