#### Experience-based learning in Entrepreneurship Education – a comparative study of four programmes in Europe

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#### Abstract

Research has argued that in order to learn the practice of entrepreneurship, individuals must engage in entrepreneurial processes in order to gain experiential knowledge, often stated as 'learning by doing'. Practitioners also emphasize that learning to be entrepreneurial is typically experiential. Today, an extensive and steadily growing number of entrepreneurship educations respond to the identified needs for experiential learning but studies on such programmes have often been single case descriptions. This paper investigates the experience-based learning practices across entrepreneurship programmes in four countries, in order to identify common and divergent trends. While the programmes have different structural frameworks, address different groups (ex. engineers, designers, business students), and deliver experiential situations through different means, the programmes share an emphasis on putting the learner centre-stage in the process, and requiring that the learner take shared responsibility for learning from the experience, particularly in regards to setting boundaries for engagement.

*Keywords: experiential learning, learning-by-doing, entrepreneurship education; trends; European case-studies* 

#### Introduction

The development of entrepreneurship programmes is not a recent phenomenon (Katz 2003). In a study at the start of the new century, Charney and Libecap (2000) found that the number of entrepreneurship education programmes has increased to more than 1,500. Giving an extensive overview of the entrepreneurship education literature is challenging at best, due to continual evolution of educational design, and expansion towards more and more disciplines. At the same time, there is a visible need for structure to better evaluate, compare and contrast existing offers (Byrne et al. 2014; Fayolle et al. 2007; Rae et al. 2012). Recent work has been done to outline some of the differentiations necessary when designing entrepreneurship education about the phenomenon of entrepreneurship in comparison to educations geared more towards preparing individuals for the practice of entrepreneurship as (part of) their future career (Blenker et al. 2012; Mwasalwiba 2010; Neck and Greene 2011). Thus, not only is there an increasing number of entrepreneurship education programmes at Higher Education Institutions, but more and more programmes – across cultures and disciplines – seem to be based on experiential learning (Blenker et al. 2011; Mitchelmore and Rowley 2010; Morris et al. 2012; Ulvenblad et al. 2013).

Research has argued that in order to learn the practice of entrepreneurship, individuals must engage in entrepreneurial processes in order to gain experiential knowledge (Lackéus and Williams Middleton in press; Read et al. 2011; Sarasvathy 2008), often articulated as 'learning by doing' (Cope and Watts 2000; Pittaway and Cope 2007). Similarly practitioners emphasize that learning to be entrepreneurial is typically experiential. Solomon, Duffy, and Tarabishy (2002) comprehensive review found that "experiential learning" is widespread, reflecting Fayolle and Gailly's (2008) point that entrepreneurship education is driven by experience more than by systematic teaching approaches. A steadily growing number of entrepreneurship educations respond to the identified needs for experiential learning. However, increasing criticism is voiced regarding the approach with which these educations are researched and presented: separately and subjectively (Blenker et al. 2014). Numerous case studies on entrepreneurship education and pedagogy initiatives in Europe exist – but most of them are presented as independent cases given from the perspective of the individuals who initiated them. Independent cases are not connected to one another, since their data lack coherence in the way they are presented.

In this paper, we therefore aim to understand: *how experience-based entrepreneurship programmes are put into practice and which commonalities and differences can be found among these programmes.* Building upon existing knowledge regarding 'experiential learning' and 'learning by doing', positioned relative to formally structured entrepreneurship educations, we investigate four programmes from universities in different European Countries (Denmark England, France and Sweden) and compare and contrast these cases. We conclude with discussion of some identified themes which may give direction for future study.

## **Theoretical Foundations**

While information can be gathered by listening and reading, experience can only be gathered by doing, talking, and sensemaking; in short – activities. Researchers argue that students must be engaged in entrepreneurial activities to achieve learning entrepreneurial competencies (Carrier 2005; Fiet 2001; Lackéus 2013). Importantly, learning from experience translates not just into a 'learning by doing' approach, but needs to be 'learning *from* doing' (Kyrö 2008; Lackéus 2013; Morris et al. 2012; Ollila and Williams Middleton 2011), where the *from* implies reflective mechanisms in addition to taking action. Jack and Anderson suggest that education should

produce "reflective practitioners" (1999). Experiential learning theory states that it is not only the acquisition but also the transformation of experience which is central to the learning process (Kolb 1984). Thus, learners have to play an active role in gaining experience from their activities, but they also have to reflect on the processes and outcomes.

Baum and Bird (2010) found that 'practical intelligence', emerging from experience, positively interacts with business growth, especially in the early years of business creation. Krueger (2007) argues that it is not the experience *per se* but the lessons learned from it that is more important. Thus, many scholars agree that it is through the sensemaking and interpretation of the experience that learning happens (Rae 2000, 2006; Rae and Carswell 2000; Sardana and Scott-Kemmis 2010). Adding to this, Cope and Watts (Cope 2003; Cope and Watts 2000) observe that higher level learning happens based on critical incidents during the entrepreneurial experience, but that those incidents need mentoring support programmes that help the learner to reflect and interpret them as learning experience. This calls attention to the role of the educator in the learning process.

According to social constructivism, learning is an active construction of knowledge and meaning by the learner and based on experiences in the world (Bechard and Gregoire 2005; Kyrö 2005; Löbler 2006). Experiential learning is thus at the heart of a social constructivist learning paradigm, and addresses the ambition to develop competency, understood as the combination of knowledge, skills and attitudes (Sánchez 2011). Table 1 introduces the contributions that a social constructivist perspective can provide to an experiential approach of learning entrepreneurship.

Key issues in entrepreneurship education	Answers provided by constructivism	Sources in literature
Role of the	Active constructors and co-constructors of	Löbler (2006); Béchard and
learner	knowledge and meaning, based on	Grégroire (2005); Kyrö
	experiences in the world	(2005)
Objectives	To be defined by the learner	Löbler (2006)
	To evaluate (conclude/criticize); to create	Béchard and Grégoire (2005)
	(reorganize knowledge to act)	
	Critical Thinking	Gibb (2005)
Role of the	Coach/ Developer: facilitating learning	Béchard and Grégoire
educator	experiences; providing learning environment	(2005); Löbler (2006) ; Kyrö
	and possibilities for reflection	(2005)
How can learning	Through open learning process and process	Löbler (2006)
be initiated	driven pedagogies / to allow for creation of	
	new roadmaps	

Table 1: Constructivist solutions to some key issues of entrepreneurship education

Social constructivism assumes that learning is the construction of knowledge by the learner through interaction with the world. Consequently, the role of the learner is to actively explore and experience the world – beyond classroom boundaries; the more connections are created to actors inside and outside classroom, the better for the entrepreneurial learning process (Mueller and Anderson in press). The objectives of the learning process should be defined by the learner or in a process of social construction together with the lecturer (Löbler 2006). Moreover, the role of the

educator shifts from being a teacher – transmitting knowledge – to being that of a facilitator in the learning process (e.g. Kyrö 2005; Béchard and Grégoire 2005), enabling translation, transformation or even creation of knowledge.

In order to provide the conditions for experience-based learning, entrepreneurship education needs to provide possibilities for both entrepreneurial experience and reflection. Rasmussen and Sørheim (2006) state that a shift from teaching individuals in a classroom setting towards more action-based entrepreneurship programmes is needed, emphasizing learning by doing activities in a group setting and a network context. In particular, the involvement of external resources is perceived as contributing with up-to-date and real-life experience for the students, while also enabling access to additional networks for further entrepreneurial development, including access to potential customers or entrepreneurial role models. The importance and utility of an entrepreneur's network and personal relationships when making decisions and solving problems, and that learning is developed through interaction and negotiated processes with others, is also recognized by additional researchers, e.g. Taylor and Thorpe (2004).

Corbett (2005) argues that experiential learning to address the importance of learning within and from the process of entrepreneurial practice, emphasizing learning at an individual level. He connects insights on knowledge, cognition and creativity in order to identify the uniqueness of entrepreneurial learning processes of individuals and suggests a greater appreciation of individual learning differences. Additional research argues that that entrepreneurship education aimed at preparing individuals for the practice of entrepreneurship needs to adopt a learner perspective, so that educational design and delivery not only facilitate space to experience the entrepreneurial process, but also provide stimulus and support for reflection of the learner's own interpretation of the experience, including not only cognitive but also emotional processing (Kyrö 2008; Williams Middleton and Donnellon 2014). The emphasis on both the individual learning process, but as achieved through social interaction, including negotiation and contextualization aligns with entrepreneurial learning research (Rae 2005, 2006). This existing literature, emphasizing group and network interaction and negotiation, learner centricity, and focused reflection provides guidelines for investigating experiential learning in formal entrepreneurship education. In the following section, we establish an analytical framework which is then applied to the selected cases.

## Method

As the research conducted is exploratory in nature, and aims to understand common and divergent practices of involving experience-based learning in entrepreneurship education, a qualitative methodology is applied, building upon a multiple case study (Yin 1994). To investigate successful initiatives and current applications of experience-based learning in entrepreneurship education, four entrepreneurship programmes where chosen from institutions in Denmark, England, France and Sweden are addressed, in a manner similar to that suggested by Eisenhardt (1989). The programmes were recognized as utilizing social constructivist perspectives in their educational design, thus giving a common ground for further study into experiential learning practices.

## Analytical framework

The analytical categories employed build from previously presented literature (for example, Bechard and Gregoire 2005; Cope and Watts 2000; Gibb 2002; Kyrö 2008; Mwasalwiba 2010;

Rasmussen and Sørheim 2006, among others), in line with models used in other work addressing entrepreneurial activity and learning in university environments (Johannisson et al. 1998; Lackéus and Williams Middleton in press; van Burg et al. 2008), and the general importance of the learning space (Kolb and Kolb 2005). The framework aimed at addressing the core components of a formal educational programme as well as learning that may stem from outside the traditional educational environment, in order to address the experience-based practice focus of the paper. The framework is simply presented in Figure 1.



Figure 1: Dimensions to investigate entrepreneurial learning opportunities

In Figure 1, '*Content & framework*' refer to the programmes' main pillars and its main structure including the key contents of the programme, as well as the profile of the target group and its educators (e.g. Fayolle and Gailly 2008).

'*Learning & pedagogy*' concerns the programmes' learning objectives and approach to stimulate learning, including methods and practices designed for this purpose, as well as underlying learning philosophies (Cope and Watts 2000; Fayolle and Gailly 2008; Rasmussen and Sørheim 2006).

'*Motivation and objectives*' identify what drives the programme; why it was created and what sort of change it intends to bring about. Ideally, from a social constructivist perspective, this dimension needs to be considered from both the perspective of the programme and the learner (Löbler 2006).

*Networks and connections*' identifies the connections inside and outside the education that are provided and/or facilitated by the examined programme: How intense are these connections and does the education encourage the creation of networks beyond classroom? (Mueller and Anderson in press).

And finally, the 'Learning space' reflects on the physical learning environment, how it is created and by whom – but also refers to physical boundaries and whether these are respected or not in the education. How are learners supposed to feel in this space and are they encouraged to take ownership? (Kolb and Kolb 2005; Löbler 2006)

Category	Questions posed
Content and framework	What are the key contents of the programme?
	What are the targeted learning outcomes of the programme?
	Which sort of guidance do you provide for your students in their learning
	process? (How) do you identify the right intensity of guidance?
Learning and Pedagogy	Regarding the educators in the programme, which profile/s do you target and why?
	Regarding your pedagogical approach (when and how to learn) which methods and practices are you using to stimulate learning?
	What is your underlying learning philosophy? How do you think students learn best?
	How do you allow for experiential learning? Which sort of experience do
	you sumulate/design?
	Do you graate conditions of personal wellbeing for students to learn? If
	so, how?
Motivation and objectives	Duration and scope of the programme
	Target group
	What is the major objective of the programme?
	What are the targeted learning outcomes of the programme?
	Do you create conditions of personal wellbeing for students to learn? If so, how?
Network and connections	Regarding the educators in the programme, which profile/s do you target and why?
	Which sort of guidance do you provide for your students in their learning process? (How) do you identify the right intensity of guidance?
	Which connections does the programme create/facilitate towards
	institutions/contacts outside the school environment (e.g. entrepreneurs
	associations, etc.)?
Learning space	What is your underlying learning philosophy? How do you think students
	learn best?
	How do you allow for experiential learning? Which sort of experience do
	vou stimulate/design?
	How do you design/choose the physical space in which students will
	learn?
	How do students create their learning space?
	Do you create conditions of personal wellbeing for students to learn? If so, how?

#### Table 2: Analytical framework questionnaire

#### Data collection

Through an in-depth online questionnaire and follow-up dialogue with the programme directors and faculty, the programmes were analysed relative to a framework addressing five categories, presented in Figure 1. Questions were constructed to investigate both the design of the educations and the experienced learning process as interpreted by the programme designers, in an attempt to access the more informal and synergistic aspects of the design. The questions addressing the categories are presented in Table 2.

We analysed entrepreneurship programmes based on experiential learning from four higher education institutions in Denmark, England, France, and Sweden. The programmes are presented in Table 3. All of them are entrepreneurship programmes at the graduate and/or postgraduate level with international students from different disciplines. The programmes are held in the respective countries and are awarded with ECTS credits.

Denmark	England	France	Sweden
Aarhus Business School	The University of Leeds	ESC Dijon	Chalmers University of
			Technology
"Experience Economy"	"MSc Enterprise"	"FACE – Summer	"MSc Entrepreneurship
		school" (Future	and Business Design"
		Authentic Creative	
		Entrepreneurs)	
2 years, Master	1 year fulltime	2 weeks fulltime	2 years Master
programme, fulltime			programme, fulltime
45 graduate students /	28 postgraduate, all	33 post/graduate	50 graduate students (4
all disciplines;	disciplines; international	international students,	tracks); all disciplines;
international		all disciplines	international

#### Table 3: The sample programmes

## Data analysis

Data collected through the online questionnaire was independently reviewed by two of the authors, to identify referral to experience-based learning practices, and compiled into a table utilizing the categories of the analytical framework (see appendix). The independent analysis was then compiled and discussed by the same two authors in order to reduce individual bias or select interpretation of data. On this basis, themes were identified, and then discussed among all authors in the paper before being presented in the following section.

## Findings

The comparative study of four recognized entrepreneurship programmes, emphasizing experiential learning, identifies common and differentiating themes and practices across institutional and cultural borders. The findings are presented according to the five categories presented in Figure 1: 1/Content and framework; 2/Learning and pedagogy; 3/Motivation and objectives; 4/Networks and connections; 5/Learning space.

## 1/Content and framework

The general frameworks of the programmes are highly comparative in terms of duration (one to two years, fulltime), number of students (30-50) and their background (international, multidisciplinary). The awarded degree is a Master of Science or Art in all cases except for the French case, where the programme is a two-week summer school that is still credited and an award certificate issued. The most striking commonality in terms of content and framework is the interdisciplinary background of both students and staff, as targeted by all programmes (i.e. not only are students actively recruited from different disciplines, but faculty are also sought and selected based on diverse competence and experience, both academic and practical). Furthermore, all programme directors have mentioned that the choice of staff is not primarily based on the knowledge of the person but rather his/her passion for the subject as well as a complementarity of all profiles. For example, programmes often dedicated multiple educators to the learning space, even though this was often not allocated for financially, due to the recognized importance of capturing key learning incidents and enabling reflection, based on these incidents. The level of engagement and adaptability of the educational faculty was also common across the cases, and seen as unique in comparison to other programmes at the same institutions.

As will become apparent, the overall objectives of the programmes are very close. However, on a content level, a large diversity of subjects, methods and approaches are utilized to teach and achieve these objectives. Some focus more on new venture creation, while others focus more on methods of problem solving, empathy and the connection to the self. Furthermore, both intra- and entre-preneurship projects are offered as mechanisms to put theory into practice, as discussed in the following section on the pedagogical approach and underlying assumptions on learning.

#### 2/ Learning and pedagogy

Regarding the approach to learning, and the question 'how to learn', we can see several similarities in the approaches applied across all the cases. All programmes have a strong experiential approach to learning, but diverse ways of integrating this approach into the programme.

None of the programmes are purely experience-based meaning that traditional educational frameworks involving theory are employed. But all the programmes choose to alter theoretical input – usually delivered in a more traditional classroom environment – with learning 'through' action and from action - usually achieved outside the classroom. Learning from action is facilitated through space for reflection and discussion of experiences and critical events or episodes. All programmes offer some form of guidance throughout the programme, and faculty take the role of facilitators or coaches. Taking action and acting in this world especially outside classroom is strongly encouraged. Thereby, guidance from staff is focused on the process of learning, and less on the content. In some programmes, coaches are very present throughout the entire experience (France), while others deliberately create challenging situations that can provoke learning from failure (Denmark). Learning from failure however, is strongly encouraged across all programmes, while some provoke it more directly (Denmark). Learners are usually free to choose the degree of guidance they would like to have. The English programme appears slightly more structured in regard to this point. And finally, within an experiential framework, all programmes use multiple methods to stimulate learning such as simulation games, intra- and entre-preneurship projects, and collaborative forms of learning such as team-based learning.

## 3/Motivation and Objectives

When looking at the learning objectives of the programmes and their visions we find variances and diversity despite a commonly stated objective to stimulate *entrepreneurial action* in this world. While the Swedish and the English programmes focus on the process of venture creation and the development of a business activity, the French and Danish programme directors express a stronger emphasis on the personal development side – creating an entrepreneurial person who is capable of "creating her life based on who she is" (France). The Swedish programme would like students to identify their "own and other peoples' needs". The Danish programme director puts it more general and would like to stimulate "prudent citizens". When looking closer at the "wellbeing" that programmes would like to install, we can see that some are very much concerned with students physical wellbeing, for example providing 'snacks and making sure they take regular breaks" (France), while other programmes want to ensure that students get the experience of having to fend for themselves (the Danish responding to a question regarding wellbeing of the student with "no, on the contrary"). A general commonality seems to be that all programmes provide the minimum conditions for some sort of 'physical wellbeing' such as working space, access to material and staff resources. At the same time, all programmes seem to encourage a 'cognitive unease' that can include failure and/or frustration but then learning from going through such situations. To create a 'cognitive unease' the programmes have chosen 'harder' (Danish) and 'softer' solutions (France, Sweden, England) that can, for example, be seen as the point at which faculty choose to intervene and provide guidance and/or support.

Regarding the objectives for future development, most respondents addressed that they will need more external funding since their forms of learning are cost intensive. At the same time, they would like to spread their pedagogy to other programmes that are not related to entrepreneurship to transform the general pedagogical approach of their university.

#### 4/ Networks and Connections

All of the programmes present strong connections to the world outside classroom or what is often called 'the real world' in the interviews. All of them place strong emphasis on connecting students to actors of entrepreneurship, whether those are actual businesses or entrepreneurs, or involvement in the process of business or venture creation. These connections are mostly of a regional and contextual nature. The boundaries of the classroom have thus become 'permeable' – students are encouraged to connect to the world outside and actors from outside are invited in. The French programme differs from the other programmes in the nature of connections that are encouraged, which include not only actors involved in entrepreneurship, but any exchange that may appear inspiring or as creating empathy to a given problem that may potentially turn into a fruitful component of the learning process.

## 5/ Learning Space

Regarding the actual – physical learning space, many programmes are limited due to their schools infrastructure (Sweden, England, France). The Danish programme possesses a dedicated entrepreneurship building which provides a certain freedom regarding interior design, but also dedicates space to students, where they can take ownership and design – "to a certain extent" – their learning space the way they would like to. The other programmes are partly bound to more traditional classroom settings provided by the education institution. Nevertheless, all programmes seek within that scope to provide the greatest possible autonomy to students to organize and arrange their learning process.

However, for specific learning objectives such as creativity seminars (Sweden, France); entrepreneurship boot-camps (England); metaphorical teaching with kayaking/climbing (France) – the programmes will leave the traditional environment and find or create new niches to stimulate entrepreneurial action.

#### **Conclusion and Implications**

Experience-based learning is recognized as a critical mechanism for preparing individuals for the practice of entrepreneurship. However, as action- and experience-based entrepreneurship programmes are a relatively new phenomenon, few studies exist comparing design and pedagogy across institutions and cultural programmes build upon common inspiration, for example effectuation (Sarasvathy 2008), but execution is often done in isolation. There is value in peer to peer learning of shared practice and institutional differentiation, to help verify and validate mechanisms for achieving experienced based learning.

One of the most essential findings is probably that there is no substantial difference between the four programmes in terms of experiential learning, even though the programmes reside at four different universities, in four different European countries and were designed by independent actors with no previous contact or collaboration, but rather were simply curious to explore their respective learning opportunities at their institutions.

Not only does experiential learning seem to have gained momentum all over Europe; but in the light of our findings, experiential learning has gained a new face. In the past decades, modern entrepreneurship pedagogies are often connected to a 'learner-centric' approach, putting the learner at the nucleus of the education. The experiential forms of learning we have identified place the learning *inside* the experience, but not at its centre, as none of the programmes are purely experience-based. Learners can then decide autonomously, by taking responsibility for their learning, which role they would like to take in their experience and how they would like to make sense of their experiences. In order to do so, they have facilitators from diverse disciplines at their disposition; a strong network of local actors; a diverse and international team of students; and a new perspective on failure as a challenge from which to learn.

This paper thus point towards a new generation of entrepreneurial educations in Europe that is about to emerge and that seems to have strong commonalities. However, these educations are not without challenges since they currently are either in competition, or in conflict or simply not appreciated within the existing educational frameworks of their home universities. Consequently, the pedagogical format itself will have to be entrepreneurial – by finding more external resources for a costly pedagogical format and by creating more appropriate learning spaces outside the walls of the schools.

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# Appendix

## Table 3: Comparison of experiential learning aspects across entrepreneurship programmes

questions	Denmark	England	France	Sweden	Themes
Content and framework:Q7	eship, design, experience	new venture creation	applied design thinking, empathy, connection to self	learning through, engagement, action-based	
Q12	prudent citizen (interpret prudent as reflective, aware)	confidently engage in e- activity, awareness of value	understanding who I am and how I can create	how to create a new venture, self-awareness, e-competency, e-identity	(self) awareness
Q16	control on learning process, less on content	guidance; course structured but w/ flexibility for students	coaching throughout – present but not impose help	routines and resources available; objective is for student to identify right intensity & know when to ask	Student centric (empowered?)
Network and connections: Q8	faculty from arts, social sciences	PhD level, interactive teaching experience, enthusiasm and interest for eship, willing to engage in univ. enterprise activity	'entrepreneurial', passion to stimulate learning, learners themselves, diversity	variety of disciplines, passion for action-based eship, interactive; technology competency; facilitate reflection	Passion, interactive
Q16		guidance	coaching for stability	students should choose what fits them; resources avail.	
Q17	local actors	University start-up support, ext. firms/entrepreneurs	Real companies; therapists and other actors with different (than eship) objectives	regional innovation system; key idea partner, multiple stakeholders	Local actors
Motivation and objectives: Q4 & 5	2 yr masters – 45 students	1 yr (M?) mixed-discipline, intl. mix (majority outside EU). 20% have fam. biz background	interdisciplinary, intl., business, engineers, designers	tech., science, business, design, law backgrounds; 60 per yr, 4 tracks	Mixed- discipline
Q6	act entrepreneurially	new venture creation, how eship theory translates into practice and policy	develop entrep. mindset	become entrepreneurial, develop entrep. competency	Take entrepreneurial action in world
Q12	prudent citizen (interpret prudent as reflective, aware)	confidently engage in e- activity, awareness of value	understanding who I am and how I can create	how to create a new venture, self-awareness, e-competency, e-identity	(self) awareness
Q15	no (want them to feel the uncertainty of reality)	support for high dynamics through network	access to materials and provide snacks; force breaks; suggest or create relaxed atmosphere	different mechanisms for 'taking the temperature'; special routines available	Clearly different approaches – some hard, some soft

Learning and Pedagogy: Q8	faculty from arts, social sciences	PhD level, interactive teaching experience, enthusiasm and interest for eship, willing to engage in univ. enterprise activity	'entrepreneurial', passion to stimulate learning, learners themselves, diversity	variety of disciplines, passion for action-based eship, interactive; technology competency; facilitate reflection	Passion, interactive
Q9	interventions in the real-world; discussion forums ( <i>reflection</i> <i>space</i> )	project-work, reflective learning; utilizing real entrepreneurs/networks	highly interactive, learner- centered, experiential	learning through approach; real-life venture creation; designed reflective space	Real-world connected and Reflective
Q10	experience based	social constructivist; self- directed and learner-centric	value driven (important and relevant to the student)	learning by doing, learning through creating value (for self and others)	Experience, Value
Q11	interacting and intervening with real-world	interactive projects with small firms; support individual entrep. activity	applied to real-world challenges, interact with business owners about these	students in the driver's seat – creating the venture	Interactive
Q12	prudent citizen (interpret prudent as reflective, aware)	confidently engage in e- activity, awareness of value	understanding who I am and how I can create	how to create a new venture, self-awareness, e-competency, e-identity	(self) awareness
Learning space: Q10	experience based	social constructivist; self- directed and learner-centric	value driven (important and relevant to the student)	learning by doing, learning through creating value (for self and others)	Experience, Value
Q11	interacting and intervening with real-world	interactive projects with small firms; support individual entrep. activity	applied to real-world challenges, interact with business owners about these	students in the driver's seat – creating the venture	Interactive
Q13	building space exclusive for the students	adaptable, creative workspace; bootcamp at ext. location	<sup>1</sup> / <sub>2</sub> ext. environment with no internet connection, <sup>1</sup> / <sub>2</sub> adaptable, creative workspace	office-space in incubator exclusive to program; constant interaction with real-world	Students create/own workspace
Q14	students can change and utilize the building space as they choose	free to design the adaptable, creative workspace	free to design the adaptable, creative workspace	students are responsible for venture development; only 1 day per week is class time	Students create/own (responsible for) workspace
Q15	no (want them to feel the uncertainty of reality)	support for high dynamics through network	access to materials and provide snacks; force breaks; suggest or create relaxed atmosphere	different mechanisms for 'taking the temperature'; special routines available	Clearly different approaches – some hard, some soft