3E CONFERENCE PROCEEDINGS

Book of Abstracts

3E Conference – ECSB Entrepreneurship Education Conference

2021

3E CONFERENCE – ECSB Entrepreneurship Education Conference

Preface

Dear colleague,

It is with great pleasure we welcome you to the *3E Conference - ECSB Entrepreneurship Education Conference* 2021. This book presents the abstracts of the online 3E Conference held on 5–7th May 2021. The Conference is hosted by Engage – Centre for Engaged Education through Entrepreneurship, Norwegian University of Science and Technology (NTNU) and the European Council for Small Business and Entrepreneurship (ECSB).

Entrepreneurship Education is recognised as a way to support learners, at all levels of education, to develop the skills and attitudes to work within, and adapt to, a changing global economy. However, we should not lose sight of the capacity to help learners to engage critically with the drive for entrepreneurship; encouraging them to engage with the positive and negative impacts; and exploring new and diverse ways of creating value for European society and the economy. In doing so, we can also help them to understand their role as enterprising employees, as well as discovering and developing their entrepreneurial potential. This context requires us to reflect upon what we teach, how we teach and ultimately the rationales for our chosen approaches. As educators we also need to engage those outside the academia, sharing our experiences and creating a dialogue with practitioners and policy makers at all levels and with local, national and international business communities.

Through an innovative and unconventional format, the 3E Conference has established a new approach for entrepreneurship conferences. Unlike many conventional academic events, the Conference focuses on problems and questions rather than on ready-made solutions and presentations of research findings. It offers an exclusive and engaging opportunity for educators, researchers, practitioners and policy makers to debate and exchange experiences of the major challenges and advances in enterprise education, with a special focus on Europe.

The theme of 3E 2020 was *"Developing entrepreneurial mindsets through education"* and 104 abstracts for research papers, practitioner development workshops and engaging collaboration workshops had been reviewed and accepted when the conference was cancelled due to the pandemic. This tells us something about the number of researchers and practitioners that have joined the 3E community and that we look forward to meeting at future physical 3E conferences. On the note of looking forward, the theme of 3E 2021 is *"Entrepreneurship education in the 2020ies"*. Following the 3E format there were two calls this year, one for research papers and one for practitioner development workshops. The eight edition of the conference features 17 practitioner development workshops and 40 research papers. We wish to thank the authors and reviewers of both 3E2020 and 3E2021 for their persistent efforts to improve entrepreneurship education as well as the conference content.

On behalf of the organisers, we thank all the presenters, discussants and session chairs for their important contribution and wish you an inspiring, exciting and stimulating 3E Conference.

<table>
<tr><td>Roger Sørheim, NTNU</td><td>Eddy Laveren</td></tr>
<tr><td>Lise Aaboen, NTNU</td><td>*President of ECSB*</td></tr>
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PRACTITIONER DEVELOPMENT WORKSHOPS

WHY DID WE LAUNCH, RUN AND THEN CLOSE AN INNOVATIVE COMPUTING AND SOFTWARE ENTREPRENEURSHIP PROGRAMME AND WHAT DID WE LEARN?

Nigel Adams, University of Buckingham (nigel.adams@buckingham.ac.uk)

Workshop Summary
This workshop will present our experience developing and running an innovative BSc in Computing and Software Entrepreneurship (BCSE), then closing it after only three cohorts. The objective of the BCSE programme was to enable students to apply their knowledge and skills to solve real-world computational problems, develop novel solutions and establish software businesses based on their own ideas. The main challenge developing the programme was to decide on its essential components and keep a balance between computing and entrepreneurship education.

The programme was offered as a two and quarter year programme from September 2015, but it didn't attract sufficient students. Only four to six joined each of the three cohorts in September 2015, 2016 and 2017. Only two students on each of the cohorts graduated. Most students decided the programme was too difficult and transferred to the BSc in Computing and Software programme.

The BCSE programme had to be revised to ensure the quality of its educational experience. BCSE students joined modules offered on the BSc Business Enterprise (BBE) Programme. This created a good result for the BSCE and BBE students, as they learned how to work with each other.

The main success of the programme was that 5 out of 6 students, who completed the programme, achieved first class honours degrees. One of the graduates from the BCSE programme will present on-line reflections on his experiences during the programme and how it helped him to develop an entrepreneurial mind-set. Written information from another graduate will also be presented.

We will present what we have learned, including: good ICT students can be taught how to develop an entrepreneurial mindset and use it to develop businesses.

Workshop Style
15 minutes – The Master's Programme leader presents the challenges faced and what was learned.
5 minutes – The audience will be requested to react to the PDW and discuss their experiences.
20 minutes – Interactive Q&A/discussion on the problems raised running a cross-subject entrepreneurship education programme and suggestions to overcome the problems.

Expected Outcomes
We aim to achieve the following outcomes:
- A response to the question: "Do you think the challenges running this type of cross-subject entrepreneurship education programme will prevent similar programmes being developed?"
- Identifying, though interaction with participants, ways in which this type of experiential cross-subject undergraduate programme could be improved.
- Recommendations to encourage enterprise educators to offer cross-subject programmes, whilst taking into account the challenges they will face.

Related Research
Little, if any, research has been published about this type of experiential cross-subject programmes, due to the lack of such programmes in universities.

INNOWEEK FOR THE UNKNOWN FUTURE

Kaija Arhio, Centria University of Applied Sciences (kaija.arhio@centria.fi)
Marja-Liisa Kaakko, Centria University of Applied Sciences
Merja Vanha-aho, Centria University of Applied Sciences

Workshop summary
Cooperation with local business life is an important element of entrepreneurship education in higher education. Applying collaborative practices in teaching strengthen students' entrepreneurial mindset and working life skills. During one intensive week students develop innovative solutions for a local company. Students work in multidisciplinary groups. The pedagogical idea is that students meet a real challenge and teachers' role is to act as a coach.

According to students' feedback they liked this type of learning. Solving real problem in connection with existing company makes students feel themselves important. Tight schedule forced the groups to work extremely intensively and the pressure from final presentation for the commissioner caused some stress. Putting students out of their comfort zone develops entrepreneurial skills.

However, this seems to be quite common way of university-business cooperation. We want to stress some questions we care about. As a voluntary based course, we don't have knowledge about the students and their capabilities beforehand. How to combine the groups? How to arrange students' evaluation? What if the students fail and the company does not get any benefit? Traditional way of teamwork needs to be re-evaluated when working online, too.

Workshop Style
In this workshop the participants may test challenge-based learning in practise. We introduce a practical problem to solve in groups. "Mini-innoweek" participants are expected to present the solution at the end of the workshop. Participants are able to experience the situation from the students' point of view.

Expected Outcomes
Doing this oneself sticks to mind more impressively. Participants may evaluate how this idea of working together with local business life can be arranged doing quick experiments just in one week period. We challenge participants to re-evaluate the traditional way of teamworking in entrepreneurship education.

ENTREPRENEURSHIP EDUCATION CANVAS:
DESIGNING EDUCATION ACTIVATING STUDENTS' ENTREPRENEURIAL MINDSET

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Workshop Summary

Scholars and educators are increasingly interested in so-called wide entrepreneurship education (EE). The main aim of wide EE is to activate the entrepreneurial mindset of students and to learn them how to create value in uncertain, authentic contexts by allowing experimentation, risk-taking behaviour and failure. In such education students participate in the chaotic, entrepreneurial process which contains all kinds of rich learning surprises. During the PDW, we present a tool focusing on the didactics underlying wide EE interventions and programs (i.e., the 'how-question') by offering design principles that can be used across educational levels and domains.

Specifically, we present **the Entrepreneurship Education Canvas (EEC)** in which 11 design principles are organized in concrete building blocks or 'categories', stimulating an entrepreneurial way of working (see Figure 1). The tool makes EE available to all, fuelling discussion among educators on the design of EE programs, such as: how can we design wide EE interventions and programs that stimulates the entrepreneurial mindset of students? In what way can existing entrepreneurial education programs be improved? Participants get the opportunity to map their own program or course alongside the 11 design principles and get feedback on how to improve.

Figure 1 Impression of the Entrepreneurship Education Canvas *(will be translated to English)*

Workshop style

In this interactive PDW, participants work as a team on an existing or new intervention by applying the EEC in Miro. The teams are challenged to pitch their main lessons learned in using the EEC. Next, in Padlet, questions will be asked about the usefulness and completeness of the EEC.

Expected outcomes

At the end of the workshop, participants...
- Have concrete ideas with regards to the design of a new entrepreneurial activity or an existing program;
- Take the tool with them to their respective higher education institutes with enough insights to share the tool within their team.

Details of any related research

Recently, a conceptual paper on the theoretical foundation of the EEC has been published in the journal Entrepreneurship Education and Pedagogy (doi:10.1177/2515127420988517). The design principles are based upon core theories from the field of entrepreneurship: experiential learning theory, social constructivism (i.e., learning theories) and effectuation theory (i.e., value-creation theory). By presenting the EEC, we aim to contribute to the design of evidence-informed wide EE programs, and the systematic investigation of its effects.

SHOULD WE CONSTRUCT JOINT ENTREPRENEURSHIP EDUCATION PHD ACTIVITIES – AND HOW SHOULD THEY BE DESIGNED?

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Workshop Summary

Entrepreneurship education research has been growing, not only in the number of published papers and researchers involved in the field, but also in the number of PhD students enrolled, with projects relating to entrepreneurship education, enterprise education and entrepreneurial learning. These PhD students are enrolled in a wide variety of PhD programs; mostly at business schools, engineering schools or schools of education – but as the research area has grown and spread, a broader variety of faculties has enrolled doctoral students working with entrepreneurship education. To date, no formal PhD program/course on entrepreneurship education has been created across several higher educational institutions. Instead PhD students tend to follow courses within the more general programs of business, engineering education etc. The purpose of the workshop is to:
- examine opportunities/new initiatives are already in place
- examine the need for and resources to start constructing joint entrepreneurship education activities involving several universities
- discuss and formulate activity design/structure
- discuss and strategize regarding political and institutional challenges to be addressed in order to move forward

Workshop Style

All participants of the 3E conference are welcome to the workshop, but we particularly invite senior researchers who are involved as supervisors or have responsibility for the organization of PhD activities at their home institutions. At the workshop groups are organized from a homogeneity principle:
PhD students - professors - PhD school responsible actors. (5 minutes)
In groups participants bring their prepared template go through the questions (25 minutes)
In final plenum groups present to the other groups the most surprising conclusion (10 minutes)

Expected Outcomes

Information and reflections from the workshop will be reviewed so that dialogue around prioritized issues can be further discussed. After the workshop, the organizers can continue discussions with participants to identify and construct ways forward. If viable routes forward are identified, conclusions will be packaged into a coherent set of activities, and initiated with relevant (engaged) stakeholders.

Advance preparation

You can find a Word template in the Dropbox which we would like you to fill out and bring with you to the workshop. If you (hopefully) are preparing this well in advance of the workshop we would like you to email the document to Ulla, Karen and Per in advance of the workshop, in order to help us prepare better. Please send the document to us by May 1st 2021!

ENTREPRENEURSHIP EDUCATION FRAMEWORK FOR PROFESSIONAL TRAINING IN DIFFERENT DISCIPLINARY CONTEXTS

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Sebastian Landgren, VIA University College
Jette Jul, VIA University College

This workshop aims at exploring if and how a framework of different approaches to entrepreneurship education (EE) can encourage and support teachers from various disciplines in developing their students' entrepreneurial capacity, as well as what the content and format of the framework should be.

We represent a "joint venture" between a university college and a university. The aim of this collaboration was to design a series of EE professional development courses for researchers, educators and consultants from various disciplines as part of an EU-funded project.

When evaluating the first courses delivered, we noticed that quite a few participants felt uncertain about: What can EE offer for my students, and how can I integrate it into existing courses and/or develop relevant new courses? This led us to develop a first prototype of a framework describing different EE "configurations" from innovative pedagogies and enterprising behaviour (e.g. Gibb, A., 1993) to venture creation pedagogy (e.g. Lackéus, 2018).

In some contexts, the framework seemed helpful, but in others, it seemed to create more confusion. This is why we together with the workshop participants want to explore: **How can the EE framework be further developed and applied in different disciplinary contexts?**

We will open the workshop with an 10 minutes introduction to the framework, the theoretical underpinnings as well as preliminary experiences. Thereafter, we will divide the participants into a maximum of 4 random breakout rooms. Here the focus will be on iterations on the framework: What should be added, omitted, restructured, communicated in another way etc. After 15 minutes the breakout rooms will be reorganised into as homogeneous disciplinary breakout rooms as possible. During this last part of the workshop the groups will discuss the benefits of applying the framework in different disciplinary contexts.

DIGITAL TOOL SUITE FOR TEAM DEVELOPMENT IN ENTREPRENEURSHIP EDUCATION

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Max Dehne, Young Digitals Consulting Berlin

Workshop Summary
The workshop introduces a digital tool suite consisting of three applications to support entrepreneurial teams in finding their entrepreneurial identity and meaning to the questions of who they are and how they interact socially. Questions in regard to efficacy and positive affect are of high importance for the practice of entrepreneurship education, as positive affect improves the transition from student to entrepreneur, allowing them to develop resources and to move their venture forward (Ahsan et al 2018; Shepherd & Patzelt 2018). For that purpose, simulations are designed to promote learning, primarily by application of a narrative drawn from an entrepreneurial setting. Previous research suggests that entrepreneurship students see simulation games as a worthwhile exercise extending knowledge about entrepreneurial activities (Huebscher & Lendner 2010). To engage our audience, the workshop provides an opportunity to get familiar and discuss gamified learning in regard to cultural values, team roles and learning strategies in the aftermath of failure. Participants will be presented with prototypes for each of the three applications, to discuss learning opportunities offered by the tool suite as well as the role of the educator, coach or trainer in a virtual and digitized learning context.

Workshop Style
The interactive workshop includes an introduction into theoretical foundations to inform participants in advance of the prototype presentation. Furthermore, virtual whiteboards and collaboration tools will be applied during the workshop to ensure equal opportunities for all participants to actively engage and contribute to the workshop and its outcomes.

Expected Outcomes
We offer a new concept to let students reflect on their transition to become an entrepreneur. The proposed tool suite addresses values, emotions and affect in both individual growth and team development. Specifically, (1) potential barriers regarding gamified learning shall be addressed; (2) new ways of existential learning are offered; (3) the impact of the learning process on the entrepreneurial identity can be taken into account for future improvements of entrepreneurship education programs.

Details of any related research
Each of the three applications is based on empirically tested concepts. The first application addresses culture in terms of value orientation, as culture and values are at the core of personal motivation and identity (Rockeach 1973, Payne et al. 2007), and to economic performance on team, company, and even country level (Francisco 2014). Schwartz' Theory of Basic Human Values (Schwartz 1992, 2012) is applied to identify specific cultural core characteristics. For the second application, the Belbin Team Roles model (Aritzeta et al. 2005, 2007) has been used, as it addresses team roles which have been shown to be crucial for team performance, character strength and efficiency (van de Water et al. 2008, Ruch et al. 2018). Finally, the third application, addressing entrepreneurial learning from critical events such as failure (Cope 2011, Heinze 2013, Shepherd 2004; Wang and Chugh 2016), is based on a model of failure learning archetypes (Heinze 2019).

ABDUCTION - THE KEY IN ENTREPRENEURSHIP AS EVERYDAY PRACTICE

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Workshop Summary

Blenker et al. (2012) understand entrepreneurship as everyday practice and argue that 'opportunities are thus seen as emanating from the individual entrepreneur's ability to disclose anomalies and disharmonies in their personal life'. This corresponds to Charles Sanders Peirce's notion of abduction, and inspired by this, we have developed a hypothesis-based didactic used in the education of vocational teachers. Here, the teachers formulate an abductive hypothesis that emerges from disharmonies in their teaching practice. Supported by theory, they develop an experiment as a possible solution to the disharmony, which they 'test' by conducting the experiment in their teaching practice and afterwards evaluate the experiment and 'verify' or 'refute' their hypothesis. Working with hypotheses and experiments creates learning processes in which the students (the vocational teachers) investigate and interact with their teaching practice and the context in which they teach. We see the abductive hypotheses as an essential key in entrepreneurship as everyday practice and in developing entrepreneurial mindsets through education. However, working with disharmonies and abductive hypotheses can be challenging, and the questions we care about are the following:

- What is the value of working with abduction in entrepreneurship education?
- How do we stimulate students to disclose disharmonies?
- How do we support the emergence of students' hypotheses from abductive guesses?

Workshop Style

After framing the workshop, the participants will be included in a dialogue about the above questions. The purpose is to explore and consider the potential of abduction as a didactic tool in entrepreneurship as everyday practice. In an online workshop the participants will be included in a dialog through an interplay of plenum, small group and individual sessions, where the participants reflect upon and discuss their tentative answers to the above questions. The reflections and tentative answers will be collected and shared on an online platform (e.g. Padlet).

Expected Outcome

Abduction in entrepreneurship as everyday practice can be a fruitful, feasible didactic tool, and the workshop will further investigate and unfold how to work with abduction. The workshop will deliver qualified examples of how to stimulate and maintain students with disharmonies and abductive hypotheses.

Details of related research

Blenker et al. (2012) propose that 'the pedagogy of entrepreneurship education should be personalized'. Adopting this **perspective**, teaching must create learning processes that are sensitive to students' individual contexts and that enable them to disclose disharmonies in their everyday practice. Peirce's (CP, 1931-1958) notion of abduction precisely frames this personalization and sensitivity to the students' individual contexts. Abduction concerns our basic perception and acknowledgment of the world – it is how we interact with the world and our only way of getting new ideas and thinking new. When students formulate abductive hypotheses and experiments as a solution to experienced disharmonies, they articulate their notions of their everyday practice.

TEACHING LEGITIMACY - HOW TO TEACH STUDENTS THE ABSTRACT AND TURN IT INTO PRACTICE?

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Workshop Summary

The key of any type of entrepreneurship education program or initiative is to develop individuals with certain mindset and skillset to carry out to the world the new ideas (be it products, services, social initiatives). In order to realise those projects and ideas, individuals wishing to introduce them into the society need to be able to convince various stakeholders and broader public to relevance, acceptability and desirability of their ideas - in other words they need to be able to build legitimacy for their projects.

Legitimacy is understood as "a social judgement of acceptance, appropriateness, and desirability, that enables organisations to access other resources needed to survive and grow" (Zimmerman and Zeitz, 2002:414). This abstract term aptly describes the very real net of intangible relations and dependancy the entrepreneurial individuals are woven into. New venture legitimacy scholars focus primarily on the two main dimensions of legitimacy: cognitive (becoming understood) and socio-political (achieving "taken-for-granted" status) (Aldrich and Fiol, 1994; Zimmerman and Zeitz, 2002). As a consequence, current research on building new venture legitimacy puts decisive focus on the so-called "identity mechanisms", among which narratives, entrepreneurial storytelling and framing gained a substantial attention, and into a lesser degree the rational and organisational aspects (Fisher et al., 2017).

The interest in the topic of how legitimacy is and can be strategically build is fuelled by the long standing observation that those companies that approach legitimacy building in an active way more successfully overcome the liability of newness (Singh et al., 1986), have higher survival rates (Delmar and Shane, 2004), and enjoy development and growth (Tornikoski and Newbert, 2007). Since the need for legitimacy building skills is very real, the natural question arrises - how to develop skills needed for building such an abstract "resource" and how to do it in a practical, student centred manner? Interestingly however, there exist very little teaching resources in regard to building legitimacy. Hence, in this workshop I invite participants to discuss and develop key questions: 1) is legitimacy building teachable? 2) how to teach the students legitimacy building?

In the first question the main focus will be put on the exchange of experiences among the participant in regard to their own practices in teaching and/or discussing the issues of legitimacy with their students. The aim is to establish a common understanding of what current educators practices are and what they see as viable ways of teaching the rather abstract issue of legitimacy. Also in this point, I would like to encourage the participants to take up the discussion on the moral aspects of teaching legitimacy since the tools like narratives and framings can be seen as manipulation techniques (Zimmerman and Zeitz, 2002). In the second question the participants will combine their experience and creativity in developing concrete ideas for teaching legitimacy building. Since, there exist very little evidence of the "best practice" in teaching legitimacy, the collective knowledge of the participants will be employed to develop and discuss specific techniques for teaching legitimacy building.

ESCAPING THE ZOOMBIE MENTALITY - TOOLS FOR THE ONLINE ENTREPRENEURIAL CLASSROOM

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Abstract

In the entrepreneurial classroom, finding methods to engage students in conversation, ideation and learning necessitate considerable thought and logistical planning. Increasingly, more are supporting the inclusion of 'gamification', where design elements or activity patterns traditionally found in games, are incorporated into educational contexts for learning applications. Inventing pedagogies and effective tools was particularly challenging in recently during the Covid pandemic, when educators globally were forced to pivot their teaching style and pedagogies to the remote context.

This workshop recounts a number of methods used in a large class enterprise context – including an entrepreneurship escape room, breakout entrepreneurship hero debates, and more. Attendees will gain practical tips, pre-made tools, and insights they can incorporate into their classrooms tomorrow! For the educator who cares about student engagement and divergent thinking but is limited by tools, budget and **time**, this workshop aims to disseminate effective case examples. Educators will gain 'classroom-ready' ideas and tools to enrich their pedagogy. These experiential activities are intended to parallel well with multiple courses in the entrepreneurial spectrum, but were created for a large class undergraduate enterprise education module initially. With hybrid models of teaching, gamification and an understanding of the student needs, large class sizes do not have to necessitate reduced engagement and 'massification'. With scale, comes the power to leverage new methods of engagement.

These tools were developed by the speaker as part of a large class (n=650) enterprise module, which won the AACSB Innovations that Inspire award 2020 last year. A number of research projects are in progress related to large class pedagogy, challenge based learning, and a systematic review of hackathon and experiential tools for the hybrid enterprise classroom. The module forms part of the core learning in the recent Higher Education 4.0: Certifying Your Future educator development course.

COLLABORATION IN EDUCATIONAL ESCAPE ROOMS IN DIFFERENT ONLINE ENVIRONMENTS

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Kristin E. Webb, Amsterdam University of Applied Sciences

Workshop Summary

An escape room is a competitive and interactive game in which teams work together to find and solve puzzles in order to escape a room. Educational escape rooms (EERs) are particularly well suited to practice entrepreneurial skills due to their social and collaborative nature. As EERs transition from physical to online formats due to COVID-19 social distancing measures, educators face the new challenge of recreating effective collaborative spaces. In particular, disadvantages of online learning formats include a decrease in the quality of interactions and collaborations between students. In light of this potential negative impact on the EER as a learning experience, we ask "How do tools and the environment overlap to impact collaboration in online EERs?" Participants of the workshop will experience one of three digital environments, each of which will be supported with audio, chat, and video tools. The environments differ in how interactive and technically complex they are. The workshop ends with a debriefing exercise in which the participants will share their experiences with each other. In all, participants will complete an online EER ensuring that they can make decisions around tools and environments for their own future educational use.

Workshop Style

The participants will be divided into three groups that will play an online EER, each of which takes place in a different environment. After 20 minutes of play, the session will close with a debriefing that includes the solutions to the puzzles and a reflection on collaboration during online EERs.

Expected Outcomes

Though online environments do not seamlessly replace physical environments, it is important to maximize the unique opportunities that exist for the online environment. Outcomes include awareness of pros and cons of digital tools and the limits of collaboration in online EERs, both essential understandings for the design of online EERs.

Details of any related research

EERs are particularly popular in STEM education where tacit understanding of the practice and procedural knowledge are vital (Vincenti, 1990). The same can be said for entrepreneurship education (EE). In addition, EERs have the additional benefit of contributing to the development of entrepreneurial competences (Martina and Göksen, 2020). EERs also foster student motivation for learning (Fotaris and Mastoras, 2019) which together with attention, retention, and motor production composes the learning process (Bandura, 1978). Due to the corona pandemic, EERs are taking place online, thus impacting interaction between players and potentially, the practice of EE skills. Several tools can be used in online learning to enhance collaboration, such as rich media platforms (e.g., Facebook) where players can share personal information (Wang, 2010), video conferencing, chat functions, and virtual 3D worlds (e.g., Second Life) (Hargis and Wilcox, 2008). The benefits of virtual 3D worlds are that students are represented by avatars and can walk around in the virtual world as if they were walking in an (escape) room (Boulos, Hetherington and Wheeler, 2007). Such immersive environments further promote student-centered learning, collaboration, and facilitates the integration into the game experience (Inman, Wright and Hartman, 2010).

PIT STOP – A REFLECTIVE TOOL IN ENTREPRENEURSHIP EDUCATION

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Workshop Summary
In this workshop we ask: *"How can educators assist students in reflecting on the dynamical sides of entrepreneurship?"* The overall purpose is to strengthen the sense among students of own power to take action as creative and reflective students within the *real* process of difficult decisions, feelings, struggles to create commitment and unintended bumps. *Pit Stop* is a pedagogical metaphor that the educator can use in her/his both didactical preparations of entrepreneurship education and educating practice. The Pit Stop is a short stop embedded in the teaching process and a temporary deviation from the forward living entrepreneurial process conducted by students. In the Pit Stop the students reflect on both more visible and hidden aspect of the entrepreneurial process. This is important as it is underexplored how EE potentially produces not only positive outcomes but also dark sides and unintended outcomes. The Pit Stop educator-workshop builds on a model that we currently explore and test together with students. The model exposes other layers of the entrepreneurial process than functional idea- and value creation: 1) Bright and dark sides of entrepreneurship; 2) regulations relative to ideas and 3) impact related to the broader social/cultural context.

Workshop Style
The workshop style is highly interactive and reflects the Pit Stop process conducted with students by applying key questions that are crucial in entering a reflection on entrepreneurial dynamics, for instance about own teaching preferences to enter a reflection and discussion about what guides the teaching in certain directions.

Expected Outcomes
The outcomes are two sided. The workshop provides an applicable tool for teaching about the complex dynamics of the entrepreneurial process. Further, we provide a frame for reflection on how own role/teaching process as an educator affects the students' processes in a dynamical interplay with broader social/cultural values.

Details of any related research
The Pit Stop reflective model stem initially from an analytical-model applied theoretically in the lead author's PhD. The model serves as a guiding tool for the reflective pits stops in practice and is presented both in the main PDW-paper and at the workshop. We theorize the experientially lived process by the students as the effectual process by Sarasvathy. However, entrepreneurial endeavors have a tendency to be constructed as mainly *bright* sides highlighting the heroic aspects while possible backsides are left in the *dark.* The Pit Stop is a new potential to reflect on and visit covert aspects of the entrepreneurial process, including critical aspects of entrepreneurship education and the acknowledgment of human agency and experience. Thus, we bridge the effectual process by reflections where students learn to grasp the dynamical sides of entrepreneurship as an expansion of functional causal idea development. Hence, we talk about reflective Pit Stops.

AI ACCEPTANCE IN HEALTH CARE: AN EXPERIENTIAL APPROACH TO ENTREPRENEURSHIP EDUCATION

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Abstract
Two objectives drive our research, creating an inspiring atmosphere in class and challenge students to look into new technologies and social designs. In this workshop we use Artificial Intelligence (AI) and health care as a frame for entrepreneurial education and activities to take place. As narratives have been subject to research for some time, we present an approach on how experiential exercises are introduced in class to spur interest in technology and AI. The potential for social innovation through the use of such technologies is also conceivable in healthcare. The following proposition is motivator for our teaching approach in the initial creativity phase of social start-ups: Examples of social care robots in health care are used to frame the question: Which applications are feasible in such a sensitive area? This is used as it is less a technical question but an acceptance, hence, a behavioral challenge. We add, that in addition to financial, legal and ethical challenges the acceptance of technologies like AI robots must be considered. Our experimental teaching setting enables students to analyse technology acceptance and social business design innovation. In-class students investigate the social value designing movies and/or snippets about social, therapeutic and assistive robotics technologies, and assess technology acceptance applying current theory. Our innovative approach provides important insights for entrepreneurial education, linking technology and social value.

Keywords: AI, robots, Health Care, Technology Acceptance, Entrepreneurial Education

REALISING IDEAS IN ENTREPRENEURSHIP EDUCATION USING THE ODDEE METHOD

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Workshop summary

Educators and entrepreneurs alike recognize that there is no one-size-fits-all solution in entrepreneurship education (EE). Rather, any particular educational (entrepreneurship) context may comprise diverse backgrounds in terms of ability, experience, and knowledge among both students and educators (or co-learners) and must therefore be tailored to specific needs. Gulikers et al. (2019) have identified three foundational and eleven variable design principles (EEDP), clustered in three categories, that are present in most EE programmes. Their design apparatus, the Entrepreneurship Education Canvas (EEC), enable educators to devise development goals to improve EE courses or programmes – but how do you bridge the gap between a development goal and its realization?

This workshop is conceived as an extension to the "Entrepreneurship Education Canvas: Designing Education Activating Students' Entrepreneurial Mind-set" PDW, and will enable educators to follow-up on their EE development goals using the ODDEE method (Orienting, Diagnosing, Designing, Experimenting, Evaluating, see Figure 1; Priem et al., forthcoming). Participants will be challenged to help each other define a desired outcome and corresponding actions in an interactive exercise. Together, participants will identify challenges with taking action through a reflection. Upon leaving the session participants are welcome to further discuss the challenges, method and/or handbook as the workshop aims to enthuse participants about our research, method and handbook.

Workshop Style (Digital)

The workshop takes the form of an interactive, experiential working group, using the ODDEE method and the EEC to elicit ideas among participants. Furthermore, there will be an interactive learning activity to explore actions that might help to improve their current programmes. Lastly, participants will be encouraged to identify possible challenges in taking those actions.

Expected Outcomes

Participants will apply the design principles and identify a Desired Outcome and corresponding actions that will help to improve their programmes. Further interaction and reflection will help to identify possible challenges. Participants will leave the workshop with an understanding of the EEDP, (at least) one clear action, challenges to consider and – above all – experience with EE design in practice.

Details of any related research

This workshop is a practical extension of the research report funded by the Dutch Research Council (NWO), "Learning for broad entrepreneurship" (Gulikers et al., 2019). An Erasmus+ research project, The European Entrepreneurship Training Community (EETC), is currently using these design principles as a basis to develop a Transdisciplinary Entrepreneurship Education Design Method and Handbook (Priem et al., forthcoming).

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COLLECTIVE NARRATIVE PRACTICES IN SOCIAL AND SUSTAINABLE ENTREPRENEURSHIP EDUCATION

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Workshop Summary
Inspired by emancipatory pedagogies that engage participants alone or in groups to reflect and to act on authentic socio-economic problems, our main pedagogical objective is to develop the participants' capacity for self-integration. It means making the link between oneself (one's complex individuality rich in history, values, sensitivities, vulnerability, dreams and struggles), others (one's teammates in the exchange and interaction of group work) and the rest of the world (the environment where one's actions take place) with the intention of producing a social and/or environmental impact. In order to find a starting point that engages participants in a shared social and/or sustainable entrepreneurial project, we invite them to practice a double listening process. It means that in a story of injustice where social and environmental problems are dominant, participants can also find hopeful stories of competences and positive impact. To do so, we propose the use of narrative approach (White & Epston, 2004), to create optimism and convey to participants the idea that they contribute to an alternative story based on thin traces of unique outcomes. By engaging in this conversation, participants, individually, as a team, and as a community, strengthen their belief that they can be part of the solution.

Workshop style
After an introduction to collective narrative approaches and its concepts, participants join teams based on a short pre-workshop preparation (of about 25 minutes). In teams, they experiment scaffolding narration and conversational learning spaces. They create their common stories, co-construct a collective mural and experience outsider witnessing.

Expected Outcomes
The outcome includes an understanding of how narrative practices help participant to develop "self-integration skills", i.e. the skills to integrate oneself to others in groups and broader communities while respecting personal intentions and moral values. Through sub-group sharing and debriefing, we also expect a critical reflection about this process.

Details of any related research
In 2012, Lawrence and Maitlis introduced collective narrative practices (White, 2007, Denborough, 2008) as a way to implement an ethic of care in teams and organizations. According to them, narratives allow members to re-tell histories of sparkling moments, to contextualize their struggles, and to co-create polyphonic future-oriented stories. In this workshop, we suggest that collective narrative practices are also a powerful tool to develop "self-integration skills". We suggest that it can address the challenge identified by Akrivou and Bradbury-Huang (2015): nurturing identity spaces that favours the integration of the self to others in teams and communities, rather than developing 'fragmented' or compartimentalized identities, when students learn instrumental rationality as a core, single value, even if the resulting practices are at odds with what they would do as their "true" selves or as members of a collective.

ENTREPRENEURSHIP EDUCATION EFFECTIVENESS VS EFFICIENCY EVALUATION: DOING RIGHT THINGS RIGHT!

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Workshop summary and key questions

Evaluation of entrepreneurship education programs (EEP) has been become a trending topic. We note however that evaluation of "effectiveness" and "efficiency" in the context of entrepreneurship and enterprise education, often used interchangeably. In this workshop author(s) share their viewpoints about the importance of better considering the difference between those terms. More particularly, as the systemic approach assessing inputs, process, outputs and outcomes has attracted our field scholars' attention (Loi, 2018), this distinction, it seems to us, is of a major importance. The main questions we intend to care about are:

- *Why we must consider the difference between effectiveness and efficiency evaluations?*
- *How it helps us to better evaluate entrepreneurship education programs and practices? And how thinking about efficiency will improve EEP efficacy?*

To that aim, we start with talking briefly about the difference between effectiveness and efficiency evaluations: semantically and theoretically. Then we open the debate to delegates in order to hopefully build in tandem a clearer understanding of those terms and their importance in EEP evaluation.

"WHAT WORKS, WHY AND HOW" IN JUNIOR ACHIEVEMENT STARTUP PROGRAMME TO PROMOTE SELF-DIRECTED LEARNING READINESS

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A practitioner workshop to evaluate and validate a holistic assessment tool to assess the efficacy of entrepreneurship pedagogy on learner autonomy, self-efficacy and motivation

Abstract

This PDW evaluates a holistic assessment tool developed to determine the potential efficacy of various common pedagogies applied in entrepreneurship education programmes for transforming instruction-dependent learners into more self-directed learners. The assessment tool is part of a doctoral study that seeks to identify what undergraduate business education can learn from entrepreneurship education's dynamic pedagogies to promote learner autonomy, self-efficacy and motivation, focused specifically at self-directed, lifelong learning.

Following a brief introduction to the workshop, participants are invited to collaboratively evaluate the assessment framework (please take it prior to the workshop), share their feedback and input for required modifications. The aim is to evaluate and validate the representation of the 22 questions and their answer options (Guttman scale) in order to facilitate the co-creation of a holistic assessment framework that can be applied broadly to evaluate the efficacy of pedagogy. The interactive discussion will be facilitated with the online brainstorm software of Miro and moderated by the organizer.

ENTREPRENEURSHIP MEETS SUSTAINABILITY: (RE-)DESIGNING TEACHING METHODS AND TOOLS

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Workshop Summary

Education for sustainable entrepreneurship is on the agenda of many higher education institutions (Lans et al., 2014; Lourenço, et al., 2013), because entrepreneurship is regarded as a means for the transition towards sustainability (Dean & McMullen, 2007; Shepherd & Patzelt, 2011). However, it is still debated how students learn the entrepreneurial skills and mindset to become change agents for sustainability through pedagogical interventions (Hermann & Bossle, 2020).

Education for sustainable entrepreneurship includes elements of entrepreneurship and sustain-ability education, both of which have a portfolio of teaching methods and tools. In this PDW, we elaborate on how to (re)design methods and tools aimed to increase students' skills, mindset and a set of values to act entrepreneurially to actively contribute to the transformation towards sustainability. In particular, we focus on 1) sustainability as the context to apply entrepreneur-ship methods and tools, 2) redesigning existing entrepreneurship or sustainability teaching methods by incorporating and adding elements from the adjacent field, and 3) developing novel teaching methods and tools for sustainable entrepreneurship. Hence, this workshop builds on collaborative learning and provides perspectives of (re)designing methods and tools for sustainable entrepreneurship aimed at expanding the current debate on how to teach sustainable entrepreneurship.

Workshop Style

The workshop starts with a panel representing different perspectives on teaching methods and tools for sustainable entrepreneurship and how to (re)design them. Thereafter, participants work in groups with an exercise that focuses on teaching sustainable entrepreneurship in practice. Finally, a discussion based on the outcomes, learnings, suggestions, and experiences follows.

Expected Outcomes

The expected outcomes are to collectively 1) increase our understanding on the different pedagogical underlying principles of teaching entrepreneurship and sustainability, and what this means for developing teaching methods and tools for sustainable entrepreneurship, and 2) accumulate and (co-)create ideas for this type of learning methods.

Details of Any Related Research

This PDW builds on two distinct, but related clusters within the literature on teaching sustainable entrepreneurship. One cluster is prior research that debates on whether underlying principles for teaching sustainability and entrepreneurship are compatible, and how the different pedagogical underpinnings can possibly be combined and integrated to teach sustainable entrepreneurship (Lans et al., 2014). The other cluster is research that discusses and elaborates on teaching methods and tools for entrepreneurship, such as 'Prototyping' (Noyes, 2018) and 'The Triple Layered Business Model Canvas' (Joyce & Paquin, 2016), as well as teaching methods and tools for sustainability, such as 'Utopia as a Method' (Levitas, 2013) and Design thinking for Sustainability' (Garcia & Dacko, 2015). The latter string of research also incorporates how such teaching methods and tools can be (re)designed for students to learn to act entrepreneurially for sustainability. The workshop contributes to the ongoing debate on sustainable entrepreneurship education by thematizing teaching methods and tools for sustainable entrepreneurship and offering participants the opportunity to discuss different ways it can be approached in higher education.

RESEARCH PAPERS

THE ENTREPRENEURIAL MIND-SET; OR SHOULD WE SAY EFFECTUAL MIND-SET?

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Questions we care about

Acting entrepreneurial is of increasing importance because of the rapidly growing complex world we live in, caused by developments such as globalization and technological change. Everyday life is characterized by dynamics and discontinuities fuelled by complexity and uncertainty. From the perspective of wide entrepreneurship education (EE), students are supported to act entrepreneurial and acquire an entrepreneurial mind-set, enabling them to deal with uncertainty and complexity. But what specifically captures this mind-set and how can we monitor whether and how this mindset develops overtime?

Approach

Uncertainty and complexity are dominant in the field of entrepreneurship, as both form the backbone of entrepreneurship theory. Specifically, effectuation theory elaborates a decision-making logic that helps entrepreneurs in overcoming these uncertainties and complexities. As such, we argue that effectuation theory embodies the entrepreneurial mind-set. In this study, we will give an answer to the question: 'how does effectuation play a role in the development of an entrepreneurial mind-set among university students?'. We aim to monitor the entrepreneurial mind-set consistently over a duration of time by means of an online application to capture moment-to-moment data, which is called the Entrepreneurship Mind-set Monitor (EMM). The EMM consists of five question related to the principles of effectuation. In addition, in-depth interviews will be held to elicit critical learning experiences that shed light on the development of the entrepreneurial mind-set of students.

Results

The results of the EMM show that students face different kind of challenging situations and the five effectuation principles are used differently within these challenging situations and are differently used when looking at students with and without previous entrepreneurship education experience. Over time, the 5 different principles are not significantly used differently. The interviews underline the capability of students to critically reflect on their entrepreneurial mind-set in relation to challenging situations, allowing them to develop their mind-set across contexts – stressing the relevance of designing authentic education, challenging students to experiment, collaborate and learn from experiences (including successes and failures).

Implications

This study will provide insights in how effectuation as a theory can be translated in a quantitative measure that captures effectual decision-making over time. Therefore, this study contributes to the development of effectuation as a research domain and effectuation as a practice. More specifically, the insights gained are valuable for educators, as they can support a transition to more effectual entrepreneurship education

Value / originality

Making use of an app to monitor the entrepreneurial mindset among early stage entrepreneurs and other university students) is unique. The app functions as a reflection tool for the student, feeding back the information on their changing mind-set weekly. From a scientific point of view the value lies in the operationalisation of the five effectuation principles, making it possible to use effectuation as a pedagogical approach across educational contexts and to systematically monitor the effects of wide EE programs over time.

Keywords: Entrepreneurial Mind-set, Entrepreneurship Education, Effectuation, Monitoring, Critical Learning Experiences

«WE QUARREL BECAUSE WE CARE»: CONFLICTS IN STUDENT ENTREPRENEURIAL TEAMS

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Questions we care about (Objectives)

Teamwork as a core teaching strategy in action-based entrepreneurship education is increasingly popular. However, team problems, rather than problems with the venture, is one of the main reasons why many new ventures fail. Conflicts and dysfunctional team behavior also occur in student entrepreneurial teams due to differences in personalities, perspectives, goals and work ethics of team members. Conflicts can improve teams´ performance, but also reduce team effectiveness and satisfaction, and adversely affect the student learning outcome. Therefore, students need to cope with conflicts in a constructive way that enhances their learning experience, rather than creating setbacks. The questions we care about are: What are the types and sources of tensions and conflicts in student entrepreneurial teams, and how do they manage these conflicts? Do students manage conflicts differently if the team relations are temporary, than if they are starting a new venture together? Through exploring these questions, the paper contributes to a deeper understanding of conflicts in student teams in an entrepreneurship education context, and also of how conflict experiences can be a vehicle for learning.

Approach

We combine qualitative data from two different groups of teams at different stages in the entrepreneurial process and with different timeframes. The analysis is based on altogether 12 group interviews, 50 individual interviews, 135 personal written reflections, and 7 group reflections. We apply thematic content analysis using established conflict concepts on task, relationship and process conflicts and conventional content analysis to search for conflict management strategies.

Results

We found some common sources of conflicts in the two different groups of teams. Task conflicts based on different interpretation on complex information and generally "strong opinions" related to the business idea, relational conflicts based on different communication style and team member taking individual roles, and lastly process conflicts related to work hours and leader role. We were surprised to find that short-term teams had many relational conflicts, especially in the beginning. Long-term teams (NVTs) had more process conflicts. Especially the long-term teams had several strategies that could prevent conflicts, however, conflict management tools were missing.

Implications

This paper offers practical implications for student entrepreneurial teams and teachers in how to facilitate conflict processes. It also add to the conflict literature by showing how a task conflict can develop to a process conflict and/or a relational conflict. Lastly, the paper illuminates how the timeframe make the teams´ approach to conflict management different.

Value/Originality

The paper explores conflicts and conflict management in student entrepreneurial teams, a topic which has been limited explored. Further, it compares conflict processes of teams with different timeframes.

Key Words: Conflict, conflict management, students entrepreneurial teams, action-based EE

THE "ORIGINAL BURGER" - THE ROLE OF JUNIOR ACHIEVEMENT IN THE MCDONALDIZATION OF ENTREPRENEURSHIP EDUCATION

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Questions we care about (Objectives)

Entrepreneurship education programmes run in very similar ways all over the world. This has been described as a McDonaldization of entrepreneurship education. A highly standardised menu of activities is served up for student consumption, such as competitions and mini-company creation. Many of these standards come from Junior Achievement approaches. In the paper we ask why this is the case and how it happened.

Approach

To understand how Junior Achievement has become so dominant in entrepreneurship education, we use theoretical perspectives from institutionalism, and combine this with a historical study and three national case studies of Junior Achievement in England, Sweden and Denmark.

Results

From the study we identify five processes that explain how JA shapes entrepreneurship education: Neutralising Ideology (priming taste buds), Propagating the mini-company template (standardizing food served), Evidencing and Socialising (pushing nutritional primacy), Facilitating Communion (decorating the restaurant) and Taking credit from talented winners (marketing burger lovers).

Implications

We use this critical insight to suggest a new research avenue on the influence of powerful institutions in entrepreneurship education and formulate not only new research questions, but also potential counter-actions that actors such as policy makers, funders, researchers and educators may take against Junior Achievement. In McDonaldization terms; is the "original burger" a responsible nutrition policy? And is JA a fast-food chain scholars want to work for?

Value/Originality

Junior Achievement has been studied before, but most of the studies have investigated the impact of Junior Achievement on individual student level. Here we instead focus on why Junior Achievement has had such an impact on entrepreneurship education as a field.

Key Words: Junior Achievement, Young Enterprise, institutionalism, homogenisation, McDonaldization

ADVANCING OLDER ENTREPRENEURIAL EDUCATION: EXPLORING SUITABILITY OF AN INCLUSIVE PROGRAMME

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Abstract

Little is reported in the literature related to entrepreneurial education targeting older individuals (aged ≥65 years) or about configuring entrepreneurial education for older individuals in the community, particularly targeting those without prior experience of entrepreneurship. Where age has featured in entrepreneurial education policy it has tended to focus on the younger, those involved with secondary and primary schools, rather than the older, despite "a sense of initiative and entrepreneurship" being a key competence for lifelong learning, required by all. Many researchers have called for awareness raising for this cohort or "pre-incubation" awareness-raising processes. Little is known about the requirements for older entrepreneurial learners, a group with growing future importance due to global population ageing.

This research poses three questions in its consultation with stakeholders to establish a base set of inclusive training materials for older individuals:

(1) Is an existing process-based inclusive entrepreneurial education programme developed for over 50-year olds suitable to train older persons (aged ≥65 years) in entrepreneurial skills?

(2) What similarities and differences emerge from exploring the base entrepreneurial education programme with stakeholders? (Older adults and entrepreneurship educators), and

(3) What modifications/improvements are required for a bespoke entrepreneurial education programme for older adults ≥65 years?

An emergent inquiry approach, applying a variety of methods was adopted to anchor an existing process-based EE programme to the needs of older adults using consultation and data gathering around 3 events. The data for this study comprises (1) completed response forms with demographic data and reviews of the training materials (n=11) from Event 1, (2) A subset of the same questions from Event 2 (n=6); (3) An observation sheet by an independent observer from Event 2; and (4) thematic areas for inclusion in older entrepreneurial education using a nominal group technique with international educators from the 3e conference 2018 (n=20). An existing inclusive entrepreneurial process-based programme developed collaboratively for the >50s, is broadly considered by multiple stakeholders as suitable for implementation with the ≥65s. The programme matched the training expectations of a sample of older learners and met with the approval of twenty international entrepreneurship educators. Similarities and differences were identified between these two stakeholder groups, older adults and entrepreneurship educators. Modifications required to the training related to age-appropriate advice around investment in start-up at older ages and how technology should be included for an inclusive programme. Answering the call for consideration of vocational educational contexts and more mature audiences, this study provides an example of stakeholder voice in entrepreneurial education (re)development for the ≥65s.

Keywords: entrepreneurial education, older learners, process-based programmes

THE MODERATING ROLE OF ACTIVE LEARNING TEACHING MODELS ON THE RELATIONSHIP BETWEEN ENTREPRENEURSHIP EDUCATION AND ENTREPRENEURIAL MINDS

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Question we care about (objectives)
Entrepreneurial Education (EE) is a powerful instrument which aims to foster entrepreneurial minds (EMs). The interest of research for EE is growing, as well as that for active learning (AL) and its methodologies. This study argues that for EE to help the individuals to develop their entrepreneurial mindset and their endeavours in finding their professional identity (and not simply impart skills), it is crucial to rethink education and shift from traditional didactic models to AL ones. The aim of this research is to study the direct effect of EE on EM and whether AL moderates this relationship.

Approach
The paper investigates a higher education multidisciplinary case environment. We use structural equation modelling to understand the extent to which the adoption of AL supports the development of EMs. With such an aim, we designed a survey addressed to a sample of students that is representative of the whole population of University of Teramo.

Results
The proposed research is expected to show that the positive effects of EE on EM are more pronounced for those students exposed to AL methodologies.

Implications
The results of this study may serve as a task for academics to test with a new methodology that may impact on the curriculum design so that it becomes more "student-centred". For what concerns the perspectives of entrepreneurs and managers, the paper findings could help in the choice of the EE alternatives.

Value and Originality
The research concerning the process of developing EM in higher education is limited and so is students' engagement in projects or activities. The direct effects of AL on EM and the moderating role of AL on the relationship between EE and EM represent the driving force of this research.

Keywords: Entrepreneurship education; entrepreneurial minds; mindset; active learning; moderation factors; Human Capital Theory; Social Learning Theory; structural equation modelling.

USING PRIOR EXPERIENCE IN THE QUEST FOR NOVEL OPPORTUNITIES – CAN ENTREPRENEURIAL INTUITION BE TAUGHT?

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Questions we care about (Objectives)
The ability to listen to and follow your gut instinct is oftentimes described as one of the most important elements of being an entrepreneur. Many well-known entrepreneurs ascribe their successes to their ability to tap into and trust their inner voice when it comes to important entrepreneurial decisions. Recent research has described, theorized and positioned intuition as an important way of knowing, and of processing information and making judgments pre-consciously. Gut-decisions are highly relevant for the entrepreneurial field, and this type of automatic and unconscious judgements characterized as a combination of affect and cognition ensures swift decision-making in fast-moving contexts. The aim of this paper is to explore how the exposure to relevant experience can be facilitated through different entrepreneurial teaching programs, and what the outcomes may be. The questions we care about are thus threefold: 1) Can the acquisition of entrepreneurial intuition be accelerated?, 2) How can it be done?, and 3) How may this influence the entrepreneurial process?

Approach
This conceptual work will build on new empirical findings and theoretical movements to address whether the acquisition of entrepreneurial intuition can be accelerated through formal training programs, how it can be done, and how this can influence the entrepreneurial process. By developing propositions for future research to explore we hope to spur this promising scholarly area further.

Results
The conceptual model developed in the paper, mainly explores two avenues of the intuiting process - the role of experience, exposure to uncertainty and engagement in the intuition process, and the development of trustworthy intuitions. The conceptual model shows a simplified version of the process from experience through intuitive judgment to opportunity related decision making and specifies the moderating aspects of analytical thinking in the intuitive process. The model also signifies the importance of feedback from entrepreneurial outcomes to inform future intuitive processing.

Implications
This paper will mainly have practical implications for the development of entrepreneurial education programs. In addition, affectively charged and pre-conscious judgments are valuable to any business manager to help guide their decision making, and not least to entrepreneurs as this group often face restrictions on time and resources to acquire analytical knowledge. Entrepreneurs and managers can train themselves to become more aware of their intuitive judgments, their reliability, and thus be able to make better decisions.

Value/Originality
Getting to know more of how entrepreneurs actually make the large and small decisions in the journey of their ventures is valuable in itself, and will enable scholars to increase their understanding of entrepreneurship in general. Adding the impact of training and entrepreneurial education to the mix can additionally make us better able to teach novices how to be experts in more efficient ways. The more we get to know about the intuitive process – if it can be accelerated, how this can be done, and how it will affect the entrepreneurial process – the more efficiently it can be taught in our entrepreneurial education programs.

DOING GENDER IN THE STUDENT ENTREPRENEURSHIP SOCIETY PROGRAMME

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Questions we care about (Objectives)

Traditionally considered a predominantly masculine activity, entrepreneurship represents an interesting field to explore issues related to gender. Studies reveal that entrepreneurs construct the idea of an entrepreneur as a masculine male figure. At the same time, in entrepreneurship education, the masculinity is often made invisible and entrepreneurship presented as a gender-neutral phenomenon. In this paper, the author seeks to reveal hidden masculine subtext in a program organized by a student entrepreneurship society as heard by a female participant of the program.

Approach

One of the obstacles to studying and understanding the maleness of entrepreneurship is that it is being predominantly examined through the lens of masculine norms and values. Studying gender in entrepreneurship (compared with studying women entrepreneurs) implies researching how gender is being constructed in entrepreneurship practices, which allows overcoming the presumption of gender neutrality in entrepreneurship. In this paper, a female author applies autoethnography to present and analyse her experience of participating in a student entrepreneurship society programme. The author unfolds her personal path from assuming the gender neutrality of entrepreneurship towards gender awareness and discusses a gender subtext, which remains invisible in entrepreneurship discourse.

Results

The author presents her experience of participating in the student entrepreneurship society program from three perspectives: (a) as a vignette which reflects the captured emotional state experienced in the program; (b) as a table in which she illustrates a mismatch between possible coaches' intentions and personal reactions; (c) as a path towards gender awareness, experienced as self-reflexive identity work related to analysing the experience through the gender lens.

The paper reveals that gender blindness can partly explain the feeling of being a dis-entrepreneur, which the author experienced in the student entrepreneurship society programme.

Originality and Implications

It is still uncommon in the field of entrepreneurship (education) studies to apply autoethnography. It provides some in-depth experience needed to understand how different groups of people might perceive the culture dominating in student entrepreneurship societies. The results of the study could be interesting for those who teach entrepreneurship at universities and within student communities.

Keywords: doing gender; autoethnography; student entrepreneurship society; entrepreneurship coaching

MOVING FROM DIDACTICS TO *DIDAKTIK* – TO INTEGRATE THE STUDENTS' PERSPECTIVES IN ENTREPRENEURSHIP EDUCATION

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Questions we care about

Entrepreneurship education has become a university-wide subject, and has developed in a direction that is characterised by action-based learning and student interaction Likewise, research in the field emphasises a student-centred approach and shows an intensified interest in the students' perspective. However, in times of increasing online education, this development risks to regress and education tends to focus more on the teachers' understanding of the subject. Such a situation is counterproductive to an interactive approach, and therefor highlights the importance of exploring pedagogical theories that challenge a too one-sided perspective.

Approach

This conceptual paper suggests the German didaktik tradition as a theoretical vehicle for our understanding of an interactive entrepreneurship education that embraces the students' perspective. Didaktik is a pedagogical sub-discipline that considers students as key in the education design The didaktik triangle is a theoretically based model which integrates the subject, the teacher and the students, and consider questions on what to teach, how to teach and why, as interdependent. This understanding of didaktik contrasts the Anglo-American understanding of 'didactics'. In the Anglo-American context, 'didactics' is a way to find the most suitable teaching technique to mediate a learning content defined by the teacher.

Results

A brief review of articles and chapters that include both the term entrepreneurship education, and the term didactics shows that these are sparse. One reason might be the Anglo-American dominance in entrepreneurship education research in which 'didactics' is applied to translate didaktik, hence "hides" the potential in using didaktik as a pedagogical theory in entrepreneurship education.

Implication

The paper has a practical implication for entrepreneurship educators as it provides a pedagogical theory that enhance the organizing of entrepreneurship education in a way that includes the learners' preconceptions and starts from an awareness of the learners' relationship to the subject. This is especially useful when entrepreneurship education is conducted online and in disciplines where the students might have less experiences of entrepreneurship. In a theoretical perspective the paper challenges the Anglo-American understanding of 'didactics' and suggests didaktik in the German research tradition as a suitable lens for future entrepreneurship education research. This in order to develop and define a subject-specific entrepreneurship education, i.e. 'entrepreneurship didaktik'.

Value/Originality

This paper re-actualizes the didaktik-inspired discussions initiated by Paula Kyrö, Per Blenker et al. and Jean-Pierre Bechard and Jean-Marie Toulouse over 15 years ago. Thus, it highlights a field that, unlike the Anglo-American understanding of 'didactics', suggests that educational design and research should consider students, teachers and the subject as equally important.

Keywords: didactics, didaktik, entrepreneurship education, online teaching

UTILISATION OF ENTREPRENEURIAL EXPERIENCES IN STUDENT-DRIVEN MENTORING PROCESSES

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Questions we care about

This study explores how student mentors utilize their own entrepreneurship experiences in mentoring processes of new student entrepreneurs. Previous research has discussed and proved that students in entrepreneurship education learn from others' experiences and that extra-curricular activities such as mentoring provide useful learning situations for student entrepreneurs. However, research on how student mentors' experiences are used in learning processes to create learning for student entrepreneurs in mentoring situations is still missing. Research is needed to understand how – and thus also which – experiences that are valuable for entrepreneurial skill development and how mentoring processes may be facilitated by utilizing experiences.

Approach

This qualitative research paper is based on a multiple case study research design consisting of nine longitudinal venture incubation processes. All meetings between a student mentor and student entrepreneurs have been observed over half a year, with additional interviews conducted with the mentors in order to capture the mentors' reflections about the processes. The analysis is done as an inductive Gioia analysis where theoretical sub-categories and main categories are constructed and further elucidated through observations and student mentors' reflections on own mentoring processes from interviews.

Result

We argue that different kinds of experiences – as well as how these experiences are used - are based on which stage and situation the mentoring is about. The analysis suggest that student mentors utilize experiences both to establish a mentoring relationship and to recognize student entrepreneurs' challenges and situations they are in, and thereby the mentors could adjust their mentoring. Experiences from academic entrepreneurship knowledge are utilized in the early stages of mentoring processes, while more real-life venture creation experiences are utilized later in the processes. Mentors' experiences connect the theoretical knowledge and makes it understandable when they are related to relevant venture creation processes, such as feasibility studies, networking and funding.

Implications

We recommend a greater focus on experience-based mentoring in university entrepreneurship education. Student mentors in university entrepreneurship education does not necessarily need to be experts but should have practical experiences from entrepreneurship themselves.

Originality

To our knowledge, this is the first paper that discuss how student mentors' experiences are utilized in mentoring of student entrepreneurs in extra-curricular entrepreneurship education. Understanding how experiences are shared and utilized in the learning process has a value itself for making improved initiatives for student entrepreneurship.

Keywords: Mentoring, Entrepreneurship education, Case study, Incubator, Extra-curricular

ENCOURAGING ENTREPRENEURSHIP BY GRADUATE STUDENTS: THE ROLE OF PROACTIVE POLICIES

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The enhancement of knowledge transfer between public research institutions and industry has become a fundamental area for policy actions, and university Knowledge Transfer Offices (KTOs) are a critical component in this area. However, there is very limited evidence of the role that can be played by university KTOs in stimulating student entrepreneurship.

Motivated by the need to rethink the studies and the policies on academic entrepreneurship (Siegel and Wright, 2015), in this paper we address the following research questions: "What is the impact of entrepreneurial communication and educational support implemented through university KTOs on the entrepreneurial intentions and actions of graduate students?".

To address such questions, we conducted a randomized-control trial study in collaboration with the Knowledge Transfer Office of the University of Bologna, in Northern Italy. A set of 411 master's and PhD Students of the University of Bologna in STEMM disciplines were randomly assigned to two groups: a group that received direct communication and educational support on entrepreneurship issues by the university KTO staff, and a control group that did not receive this type of treatment.

Our results show positive and statistically significant improvements in the awareness of university initiatives in support of entrepreneurship and in the perception of the university environment as favourable for entrepreneurship among those graduate students that were randomly assigned to receive proactive support and communication by the KTO. We did not find, however, a statistically significant impact of the treatment on other outcome variables, such as actual involvement in creating a new start-up or participation in entrepreneurial initiatives.

Our findings thus shed new light on the role of KTOs and university proactive policies in establishing an entrepreneurial climate within universities. They suggest that communication and educational support actions are important for university and KTO managers and policy-makers interested in raising the perceived "desirability" of entrepreneurship as a career choice or as something that the university is offering to students. The KTO should therefore adopt a proactive role in systematically reaching out not only to faculty members but also to graduate students, to raise awareness, create a climate of reciprocal trust and establish a two-way communication process.

Keywords: student entrepreneurship; knowledge transfer offices; randomized controlled trials

INWARD OR OUTWARD LOOKING? RESEARCH QUESTIONS IN ENTREPRENEURIAL EDUCATION

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Research abstract
Questions we care about (Objectives): The objective of the paper is to explore approaches used by entrepreneurial education scholars when identifying and formulating research questions in their scholarly studies, with special attention to their appreciation of inward- and outward-looking orientations.

Approach
We analyse responses from a web-based survey to 461 entrepreneurial education scholars using parametric statistics to explore central tendencies and hierarchical cluster analysis to group respondents based on distance connectivity.

Results
The findings demonstrate that the scholarly field of entrepreneurial education, on the aggregate, show highest appreciation for approaches that reflect an outward looking orientation. However, when breaking down the sample we identify four different groups (clusters) of scholars who show a more complex set-up of inward- and outward looking orientations in their research agenda. Three groups are central contributors to entrepreneurial education research by emphasizing either inward- and outward-looking orientations – or both, while the fourth group are more distant to the field and show much lower appreciation of both inward- and outward-looking orientations.

Value/Originality
Our study explores the identification and formulation of research questions, which is a critical - yet rarely studied - part of scholarly work. The findings provide original and unique insights that contribute to knowledge about how practical relevance and scholarly quality - two often-diverging forces - are incorporated in entrepreneurial education research. In this respect, the findings are valuable for understanding the development and future direction of the scholarly field of entrepreneurial education.

Keywords: Entrepreneurial education, research questions, scholarly fields, web-based survey

WHAT IF WE CHALLENGE OUR ROOT METAPHORS? EXPLORING THE POTENTIALS OF ENTREPRENEURSHIP EDUCATION AS COMMUNICATION

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Questions we care about

In various scientific disciplines, root metaphors guide our basic assumptions on our core objects. In order to achieve true progress in a theoretical discussion, not only empirical findings are necessary, but also the challenge of quite basic, often implicit assumptions. Therefore, our core question is: (1) What are the root metaphors in theoretical approaches about entrepreneurship education? (2) How can theory discussion on entrepreneurship education benefit from a view of entrepreneurship education as communication?

Approach

From various disciplines (e.g. organization sciences, communication sciences, psychology) we know, that metaphors can be assumed as building block of theory development (Boxenbaum & Rouleau, 2011). The relevance of metaphors in this sense are often enough overseen in theory debates, even though they are much more than "pictures" in the scientists mind, but can be characterized in more dimensions (Cornelissen, 2005). Examples from organization theory are "organizational identity" or from communication theory the "transfer metaphor". Vivid discussions around metaphors in theory building are assumed here as inspiration for theory building in the field of entrepreneurship education research. This paper elaborates existing metaphors in theory debate on entrepreneurship education and deduces a new approach, primarily inspired by constructivist social theory (Luhmann, 2000) and meta-theoretical perspectives of organizational theory (Tsoukas & Knudsen, 2011). Furthermore, the idea of exploring phenomena from an "as-communication" perspective is inspired by the "lincuistic turn" in social sciences and humanities (Hjorth & Seyaert, 2004; Czarniawska; 2011; Fenton & Langley, 2011) and includes elements from the likewise new perspectives of "organization-as-communication" / "institution-as-communication". It is important to highlight that communication is not the same as narrative, language, discourse or conversations. While communication often enough is still getting stuck in the transfer- or container-metaphor, communication as theoretical construct and root metaphor is even more. In line with Kuhn (2012), communication is taken seriously, that means (a) communication is assumed as being constitutive for social realities, (b) social entities (e.g. organizations, interactions) are not seen as containers for communication but as communication (and this is the point where things are getting complex), (c) from this perspective it is necessary to stay "in the realm of communicational events both conceptually and methodologically" (Kuhn 2012: 549), and (d) to overcome any simplistic assumptions on communication, that means to frame "communication as capable of producing that intersubjectivity and predictability, but simultaneously as a process that is uncertain, ambiguous, paradoxical, fragmented and dilemmatic." (Kuhn 2012: 549).

Results

This paper is part of a work in progress. In focus of this paper is the development of a theoretical framework that understands communication as root metaphor of entrepreneurship education. Therefore, this paper shows in a first step an in-depth analysis of theory literature in entrepreneurship education, extracting the root metaphors of the field. The core result of this paper is the introduction and elaboration of a view of entrepreneurship education as communication, including new questions on theory, empirical research and educational praxis that can be posed if we challenge our root metaphors.

Implications

Our work can be seen as an important basis for theory debate in entrepreneurship education research. It extracts existing conscious and unconscious assumptions on entrepreneurship education that exist in our debate. Taking the idea seriously, that challenging root metaphors supports theory development in a substantial dimension, this paper elaborates potentials for our future debate by from a communication centered point of view. So a major implication is, to what extent can a new perspective on our root metaphors help the community, to challenge basic assumptions and therefore to come up with new questions.

Value/ originality

While the EE community is discussing advanced pedagogical approaches, holistic and theory based approaches, a discussion on root metaphors is missed. This conceptual paper provides (a) an exploration of our implicit or explicit existing root metaphors (b) a draft of a theoretical framework with the view of entrepeneurship-education-as-communication. The aim of this paper is to introduce these points of view to the EE community and to discuss the status quo on theory development.

Keywords: entrepreneurship education; theory development; entrepreneurship-education-as-communication

FAILURE LEARNING ARCHETYPES: A CROSS-COUNTRY STUDY

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Abstract

The aim of this study is to research potential cultural differences in regard to learning from crucial life events, such as business failure. Our research provides answers to the questions on

(1) how the national cultures of Germany, India and Sweden do affect failure learning and

(2) whether typical similarities of individual failure learning do exist within the three nationalities.

The study uses Q methodology to conduct a hybrid qualitative and quantitative exploration of the attitudes about entrepreneurship that are present within the cultural discourse. Our results show that, for the three nations Germany, India and Sweden, culturally independent typical subjectivities in failure learning do exist. The defined typologies can be applied to broaden our understanding on pattern of cause and effect of failure and its direct, indirect and long-term outcomes. Furthermore, entrepreneurship education programs may find an application of the framework for steering discussions and reflections on the event of failure as a likely part of the entrepreneurial process.

Key words: cultural differences, learning, entrepreneurship education, failure

RE-ENCHANTING LEARNING WITH GAMES: A THRESHOLD CONCEPTS PERSPECTIVE

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Questions we care about (Objectives)
If our students discover the distinction between risk and uncertainty in a paper, will they grasp its meaning? Uncertainty and risk, isn't it the same thing ? Why bother ? Our teaching team decided to use games in its Entrepreneurship elective because we thought it would motivate students and stimulate their commitment to learning in our classes. Through games, learners would discover key entrepreneurial concepts in action. Nevertheless, games are no panacea. Even their proponents advocate for its careful use in an educational context. Bruckman (1999), for instance, describes the "chocolate-coated broccoli" syndrome, when teachers use games to embellish a repellant content. By contrast, we were surprised by students "gulping broccoli", enchanted with a naïve version of the concept we wanted to share with them. Given the promise of games and its possible traps, we question the use of games in entrepreneurship education and ask the following question: "under what conditions would games re-enchant entrepreneurship learning?"

Approach
In the context a newly created Entrepreneurship elective, we diverted existing games (video games, role plays, storytelling) and used them for unveiling key – but often troublesome – concepts in entrepreneurship, i.e. threshold concepts. According to Meyer and Land (2005), some students can undergo a transformational, enchanting, experience when learning about threshold concepts, whilst others get 'stuck' in a liminal space of learning. Building on qualitative data from focus groups, students' mind maps as well as reflexive diaries, we discuss the conditions for learning from games in our entrepreneurship elective.

Results
We first discuss important factors when designing a gamified learning situation. Through the lens of threshold concept, we then turn to games as learning levers for students transitioning through liminal spaces. Through games, students gain awareness of another way of 'seeing' and 'living' entrepreneurial action (cognitive levers), experience feelings of epistemic emotions such as confusion, surprise and 'letting go' that facilitate learning of difficult concepts (emotional levers) and gain motivation to engage in other learning behaviors to articulate it further with extant and new knowledge (conative levers). Finally, we challenge the conceptualization of 'games as liminal spaces' and discuss how we can re-enchant learning through games as part of a broader pedagogical scenario.

Implications
We show how games can help students' cross liminal spaces when learning threshold concepts in entrepreneurship. In order to avoid getting stuck in such spaces, we also identify the emotions and tasks that allow students to grasp key concepts and to apply them effectively in their entrepreneurial projects.

Value/Originality
We are the first to conceptualize games as opening up liminal spaces for the learning of threshold concepts. It explains why our teaching objectives are met in some cases and a failure in others.

Keywords: gamified education, threshold concept, experiential learning, epistemic emotion

IMPROVING STUDENTS' MOTIVATION BY IMPLEMENTING FIELD-SPECIFIC ENTREPRENEURSHIP EDUCATION?

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Abstract

As entrepreneurship education needs to be a solid part of higher education, it is important to improve students' motivation towards compulsory entrepreneurship courses. Question we care about is "Could students' motivation towards entrepreneurship courses increase when entrepreneurship education has a close integration with their profession?" To find out, if students' motivation in entrepreneurship course is better in field-specific entrepreneurship course, we conducted a qualitative survey.

As a background we have studied some existing curricula to find out what is the state of art in entrepreneurship courses in business studies, engineering, health care, social studies and humanistic. Every degree program includes compulsory entrepreneurship courses. Some course descriptions include also field-specific content, but some are common without any connections to the study field.

Basically, we might categorize study fields in three different classes: 1) business studies with entrepreneurship taken-for-granted, 2) healthcare, social and humanistic studies where traditionally thoughts of entrepreneurship seems very alien to students and 3) engineering somewhere in the middle of those two.

Approach

We argue that students are more motivated towards entrepreneurship education when the course content and teaching practises fit with their professional studies. To find out how entrepreneurship education is (or could be) integrated with professional studies in higher education, a qualitative research is conducted.

The aim of this study is to find out how to increase students' motivation towards compulsory entrepreneurship courses in higher education. According to national level principles of entrepreneurship education, entrepreneurship should be part of curricula in every field of education. Research question is: Would students' motivation be better, if the entrepreneurship course is field-specific? To find out the answer, we conducted a survey, that was sent to students joined to 3 different entrepreneurship courses. The survey will be implemented during March 2021.

Results and value

This research is on progress, and some results will be presented during the conference. Afterwards, to get a deeper understanding about the phenomena, some teachers' interviews will be added, too. As entrepreneurship education needs to be a solid part of education, it is important to improve students' motivation towards compulsory entrepreneurship courses. When finding and analysing the teaching practises that motivates students, the practical implications of this study benefit teachers and educational organisations when planning curricula and teaching practises. The research brings forth authentic data from practise, how to implement entrepreneurship education with high motivation.

Keywords: field-specificy, entrepreneurship course, motivation, higher education

ASSESSING ENTREPRENEURIAL LEARNING: A REVIEW OF PRACTICE IN HIGHER EDUCATION

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Questions we care about (Objectives)
Assessment plays a critical role in both content and methods of Entrepreneurship Education (EE) and is an integral component of course design and an essential element of any effective teaching and learning strategy (Volkmann et al., 2009; Pittaway et al., 2009). However, much of the literature and research tends to focus on approaches to teaching with questions on assessment as/of/for learning in entrepreneurship education left largely unanswered (Morselli, 2019; Murray, 2019; Kenny and Moylan, 2017; Morselli and Ajello, 2016; Pittaway and Edwards, 2012). Drawing on the work of Pittaway and Edwards (2012), the NEAR (National Entrepreneurship Assessment Review) 2016 and 2021 sought to address this gap in the literature. This paper addresses three specific research questions: what are entrepreneurship educators assessing; how are they assessing entrepreneurial learning and, how has assessment practice evolved in the five-year timeframe of the research?

Approach
Taking the 2016 study as a starting point, a follow up survey of educators was conducted in Spring 2021. This paper focuses on the analysis of the educator survey in 2021 (N = 29) along with a comparison of the educator survey 2016 (N = 32). The population for the research comprised all publicly funded and private higher education providers in the Republic of Ireland.

Results
The results show a slight departure from the more traditional assessment methods and practice in EE. Despite a reliance on the summative assessment type and focus on final grades for students and educators, innovative and technology enabled assessment is prevalent. The complex environment within which educators are operating is evident by the multi- and cross- disciplinary learning context, the range of assessment methods, forms of EE, mix of individual and group tasks and the involvement of other stakeholders in the process. Notwithstanding, educators are reflecting on their own practice and are keen to seek better ways to assess.

Implications
The findings will be useful for educators to inform their teaching practice, curriculum design and assessment design.

Value/Originality
Entrepreneurship educators have had to adapt their assessment approaches and methods while maintaining attainment of module and programme learning outcomes as well as uphold academic quality standards. Even when assessment practices should undergo change, it is not always clear what the direction this should take. This research provides evidence of the direction of changes and development taken by educators to address internal and external influences on assessment practice in EE.

Keywords: Assessment Methods, Entrepreneurial Learning, Assessment Feedback

EXPLORING THE TRANSITION FROM ENTREPRENEURSHIP EDUCATION TO WORKING LIFE

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Questions we care about

This paper explores the transition from Entrepreneurship education (EE) and aims to answer the following research questions: RQ1: How do EE graduates use their competencies to transition to the workplace? RQ2: How do EE graduates learn to participate to become legitimate work members of a workplace community?

Approach

In a longitudinal and qualitative phenomenological study, we follow 10 EE graduates two years after their graduation and explore, through a situated learning lens how their early career trajectory unfolds.

Results

One group of graduates have positions where innovation is at the core of occupational expertise. This group take the role of change agents and legitimized themselves by bringing in updated knowledge on innovation and entrepreneurship, as well as facilitating creativity and innovation. Another group have positions where innovation is not at the core of the occupational expertise. These graduates legitimize themselves by demonstrating performance, offering a combination of domain specific expertise and business competencies, and finally by learning the employer organizations "hard facts" and "tacit knowledge". Although not directly involved in innovation projects, the latter group still benefit from transferable skills they have learned in EE.

Implications

The paper contributes to the discussion of the broader impact of EE by showing how competencies from EE are adopted to facilitate the early career trajectories of EE graduates. As such it gives implications to how educators can foster employability and lay the groundwork for future scholarly work within this field.

Value/originality

Few papers have studied EE graduates in the workplace and explored the relevance of entrepreneurial competencies in fostering employability. This is to our knowledge one of the first attempts to in depth explore the transition from EE to working life.

Keywords: Entrepreneurship education, employability, entrepreneurial competencies, career

IMPROVING THE SUPPORT OF ENTREPRENEURIAL SKILLS

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Because of the increasing interest in entrepreneurship, lots of programs are developed to teach entrepreneurship. While there is agreement about the use of experiential education in this field there is not much evidence about the results of this approach. More recently, it is also recognized that the entrepreneur is important for successfully establish an enterprise. This means that there should be more attention for the soft aspects of entrepreneurship. This paper contributes to the support of the entrepreneur as a person by using a combined pedagogical and entrepreneurial approach.

Supporting the entrepreneur means that there should be attention for the soft skills and the hard skills of the entrepreneur. Concepts like coaching and mentoring are often used to develop the skills of a person. While there is not a clear distinction between soft- and hard skills, we consider the soft skills not directly connected to the business while hard skills are directly connected to the business. As there is not much evidence about the entrepreneurship education programs, the evidence about supporting entrepreneurial skills faces even more difficulties as coaching and mentoring fail a common language. In this paper, the soft support model is being used measure the support of the entrepreneur. This model can be used at the three stages of an education program; intended, implemented and attained program. We combine this with the education model for entrepreneurship. The intended program is mostly focussing on the audience and the objectives. The implemented program is mostly focussing on the contents and the pedagogy. The attained program is reflected in the evaluations or assessments. The soft support model can be used view the program objectives; from hard skills to soft skills, and the method; from directive to non-directive and also to measure the implemented and attained support.

The objectives (why) of the programs we face are focussing to the development of entrepreneurial skills which show the intended program. The content (what) of the programs can divert from hard skills to soft skills and the pedagogy (how) of the programs can divert from directive to non-directive, which show the implemented program. This can be measured by the coaches/mentors. The assessments (which results) of the program can be measured with the experienced or attained support. This can be measured by the entrepreneurs. When using the action research cycle the results of the measurements can be used to improve the intended program, but also to improve the support by the coaches and mentors. And this can also be a start to prove the effectiveness of soft support, independent of the definitions that are used for coaching or mentoring.

EXPERIENTIAL LEARNING APPROACHES IN UNIVERSITY ENTREPRENEURSHIP EDUCATION: A SYSTEMATIC REVIEW

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Questions we care about
This paper focuses on experiential approaches as one promising pedagogical orientation in teaching entrepreneurship (Lackéus, 2020; Mason and Arshed, 2013; Sherman, Sebora and Digman, 2008). Its contribution is to document the impacts of the specific teaching methods used in experiential approaches in the context of entrepreneurship education programs on entrepreneurial outcomes by answering the following questions: What are the teaching methods used in entrepreneurship education programs using an experiential approach? What are the effects of each of these methods on the learners' entrepreneurial behavior?

Approach
This paper adopts a method based on a systematic literature review. The articles were found through a literature search in databases. The selected articles for the review are those that focus on entrepreneurship education programs that use an experiential approach in academia. Only peer-reviewed articles in English and French available in full text have been included.

Results
Many experiential approaches are used to teach entrepreneurship in a university setting. Although designated by different terminologies, these approaches have many commonalities in the classroom practices and pedagogical activities used. The business plan or business model teaching activities that involve students interacting with entrepreneurs are the most used classroom practices. Furthermore, these pedagogical activities are not specific to any one pedagogical approach used. Therefore, the effects of the different approaches tend to be the same, that is, to improve learners' entrepreneurial skills and knowledge, self-efficacy, recognition of opportunities and creativity. Venture creation is weakly reported as an effect of experiential approaches.

Implications
The results provide practical implications for entrepreneurship educators who wish to use experiential methods in their educational practices by giving clear indications of the different entrepreneurial behaviors that each method is likely to elicit in learners. It further suggests to educators the most appropriate methods according to the learning objectives pursued.

Value/Originality
This manuscript focuses solely on studies related to entrepreneurship education that use an experiential approach to analyze its impacts on entrepreneurial outcomes. This choice allows for a better appreciation of the impacts, and provide clear knowledge about an important emerging topic related to entrepreneurship education. This contributes to providing better knowledge related to the impact of specific teaching methods.

WHAT ELEMENTS CONTRIBUTE TO THE SUCCESS OF A VENTURE CREATION PROGRAM?

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Questions we care about (Objectives)
The literature on the topic of VCP mainly describes seed funding, incubation, and mentorship as elements contributing to the success of a Venture Creation Program (VCP). This paper investigates if there are other contributing elements crucial for the success of VCPs.

Approach
With a background in a literature review of VCP, an online search for VCPs and snowball sampling, we contacted 201 entrepreneurship program leaders over a period of time from August 2019 to December 2020. From these, 35 entrepreneurship education programs were identified as applying a venture creation approach. The 35 programs were selected for a case study, including direct interviews. Due to time constraints, this paper includes the analysis of twelve VCP cases.

Results
The findings from the conducted interviews support the literature regarding the importance of incubator, mentorship, and seed funding as contributing elements to the success of a VCP. Besides were student recruitments, program length, and the role of faculty identified as elements crucial for the success of VCPs.

Implications
The paper contributes to the existing VCP literature and highlights new contributing elements. The findings have implications for stakeholders in existing VCPs, or other entrepreneurship programs looking into becoming a VCP.

Value/Originality
The paper presents findings from the second ever, and first in six years, case study of multiple entrepreneurship education programs specifically designed to develop real-life ventures as part of their core curriculum.

Keywords: Entrepreneurship education, entrepreneurship education design, venture creation, venture creation programs

THE ENTREPRENEURIAL MINDSET: WHAT CAN WE LEARN FROM S-O-R MODELS?

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Questions we care about

There has never been so much discussion about the entrepreneurial mindset (EM) in entrepreneurship education (EE) as in the past few years. Unfortunately, research studying how EE might trigger student EM often fails to conceptualize EM and its attributes rigorously and to include epistemological considerations regarding how we can know whether a person has developed EM or not. Thus, the main question the paper addresses is: *How can we know about EM in EE?* As a psychological concept, EM cannot be objectively observed. The paper acknowledges that other disciplines have faced similar epistemological challenges when it comes to developing and applying knowledge about constructs that are hypothetical and theoretical in nature. Therefore, in an attempt to systematize knowledge about EM in EE, the paper draws inspiration from the S-O-R model and asks: *How can an S-O-R logic help systematize the operationalization of EM as a hypothetical construct in EE? And what cognitive, affective, and conative constructs are associated with an EM?*

Approach

The paper deals with these questions by developing a conceptual model that portrays and organizes our knowledge of EM and related psychological constructs in EE. The S-O-R model is used as a form to systematically organize our knowledge of EM, its relation to other psychological constructs, and its role in EE. To develop the specific content of the model, the paper draws on research from the fields of psychology, education, and EE to identify cognitive, affective, and conative constructs related to EM in EE.

Results

The paper develops a conceptual S-O-R model for EM in EE, with a specific focus on the organism, the "O". A number of psychological constructs are identified, some of which are placed as mindset attributes, whereas others are placed as psychological constructs that mediate the relationship between student EM and learning outcome, the response variable "R".

Implications

The paper's theoretical contribution consists of a systematic approach to conceptualizing EM. The resulting conceptual model can be applied to further operationalize and measure EM in EE. Moreover, the identification of EM attributes implies identifying the malleable components of EM towards which educators can direct their efforts in an attempt to trigger student EM.

Value/Originality

The paper addresses the often-overlooked epistemological considerations related to how we can know anything about constructs such as EM that are hypothetical and theoretical in nature. A conscious discussion about how we can develop knowledge and insight about EM and how individuals develop it is critical to justify a continued focus on EM in EE.

Keywords: entrepreneurial mindset, affect, conation, cognition, S-O-R model, entrepreneurship education

HOW UNIVERSITY STUDENTS LEARN ENTREPRENEURSHIP THROUGH WORK-INTEGRATED LEARNING

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Questions we care about (Objectives)
The unique challenge of entrepreneurship education lies in the 'how' in facilitating the development of entrepreneurial mindsets and abilities in a way that help university students prepare for entrepreneurship when they graduate. It has been suggested that entrepreneurship students must learn by doing and through actions where students can apply and practise the skills necessary to engage in entrepreneurship. This paper presents a case of study of the learning experiences of entrepreneurship students during work placements as part of their sandwich undergraduate programme, and how they make the transition between academic studies and the workplace and translate their entrepreneurial learning into practice.

Approach
This study utilises a constructivist methodology and a qualitative research design. Semi-structured, one-to-one interviews were used for data collection. Data was collected in direct exchange with the students in order to capture an authentic perspective of work-integrated learning as how they experienced and perceived their learning.

Results
The placement experiences of students and what they perceived as important are broadly aligned with the notions of learning that emphasise the situated perspectives of learning through co-participation within a community of practice. The types and availability of work-integrated learning opportunities afforded to the students suggests the quality of learning that transpires. However, the nature of students' agentic capabilities to seek out and engage in learning opportunities appeared to be as significant as the workplace's ability to successfully foster and support them.

Implications
Work-integrated learning as part of a structured entrepreneurship education university degree programme can provide highly valuable learning opportunities for students that prepare them for entrepreneurship. Where appropriate, an entrepreneurship curriculum may usefully comprise of learning that occurs off-campus through work-integrated learning opportunities.

Value/Originality
There are very few studies that specifically advance our understanding on how work-integrated learning effect student learning within entrepreneurship education. This case study provides valuable qualitative insights into how university students make the transition between academic studies and the workplace through work-integrated learning.

Keywords: Work-integrated learning, entrepreneurship education, placement, practice-based learning, work-based learning, cooperative education.

WHY ASSESSING THE IMPACT OF ENTREPRENEURSHIP EDUCATION ELUDES US: A TESSERACT MODEL FOR EVALUATING THE EFFECTIVENESS OF ENTREPRENEURSHIP PROGRAMMES

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In view of the resources committed and the high expectations of its various stakeholders, entrepreneurship education (EE) is assessed on its capacity to produce expected impacts on students. However, these impacts remain difficult to grasp: i/ they are multidimensional, diffuse and delayed in time, ii/ the practice of evaluation has outpaced the development of the theory necessary for its implementation.

Based on an integrative literature review (Torraco, 2005, 2016; Elsbach & van Knippenberg, 2020), this proposal is part of a research effort to understand the impacts of EE ('in' pedagogical form) in order to improve its effectiveness in Higher Education. In addition to previous research on the objectives ('why', 'for which results'), contents ('what'), methods ('how') and preferred targets of HE ('for whom') (Fayolle & Gailly, 2008), our study adds three other dimensions to be taken into account to evaluate the impact of an HE program and its perceived effectiveness by the various stakeholders of the entrepreneurial ecosystem: 'where', 'by whom' and 'in which temporal dynamics'.

The results of our integrative literature review related to the eight constitutive dimensions of EE identified contribute to the development of an integrative (tesseract) model for evaluating the effectiveness of EE programmes. This model makes it possible to support the systematic and effective design, management and evaluation of existing or new EE programmes in all dimensions considered relevant by all stakeholders.

Keywords: Evaluation of entrepreneurship education, impact of entrepreneurship education, entrepreneurship education effectiveness, multidimensional and integrative model, integrative literature review.

ONLINE ENVIRONMENT AND STUDENTS' LEARNING IN TECHNOLOGY ACCELERATORS

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Questions we care about (Objectives)

The year 2020 and the Covid-19 pandemic have brought some major changes in the learning processes. Entrepreneurial education is not an exception. Some academics note that the transition to the online environment have made significant adjustments to pedagogical approaches of learning activities. One of the popular approaches for preparing nascent entrepreneurs is accelerators. Materiality and social practices are important elements of these learning systems because most nascent entrepreneurs join accelerator programs to get access to spaces, resources, mentoring, and networking (Bliemel et al., 2016). In this regard, the question of how the transition to the online format affected students' learning process in accelerators is of great interest. In this research, the practice-based approach was implemented. According to this approach, learning can be considered as an outcome of practice change (Hopwood; 2016). Therefore, in this paper, we will be following the logic that to understand student's learning in the new conditions, it is necessary to understand the students' everyday practices.

Approach

The study was conducted in the UTS Techcelerator program, which is a Deep Tech Early-Stage Accelerator. As the theoretical and analytical approach, the authors implemented the conceptual framework developed by Hopwood (2016) wherein the practice textures involve four essential dimensions of connectedness (Hopwood, 2014). This research follows socio-material paradigm and the authors conducted semi-structured interviews (n=11) as the data collection method.

Results

Within the framework of this study, it was founded the transition to the online format led to changes in textures of practices. These changes can be considered as the source of some challenges as well as opportunities for learning of technology entrepreneurs. At the same time new textures have become the source of new practices such as preparation practice, which have shaped new learning opportunities. For example, changing the learning space (from offline to online) led to changes in the time management and preparation practices of students.

Implications

The present findings suggest that it is important to use a holistic approach evaluating learning practices, especially, during the period of significant changes because a variety of factors can affect the effectiveness of a learning program. Additionally, this study attempted to implement a Hopwood theory for the evaluation of existing learning programs and pedagogical approaches and produced some practical recommendations for educators in terms of the program design.

Value/Originality

This study makes a knowledge contribution towards understanding how theoretical approaches from professional learning can be implemented in the field of entrepreneurial education and responses to the current request in the academic sector (research field) for further research on the topic 'entrepreneurship education as practice". Additionally, this study attempted to implicate a socio-material and practice-based approach for the analysis of the learning process in accelerators.

TEACHING ENTREPRENEURSHIP IN CHINA: CULTURE MATTERS

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Objectives
The primary purpose of this research is to explore how the cultural context, in this case, China, influences the teaching of entrepreneurship education that seeks to cultivate student entrepreneurs.

Approach
A qualitative case study approach is adopted to explore how the cultural environment influences the delivery and application of entrepreneurship education to university students in the Chinese context. Seventeen student entrepreneurs and three lecturing staff members in three Chinese universities were interviewed using a semi-structured interview approach.

Results
The findings suggest that, while Chinese universities have been importing teaching models and methods of entrepreneurship education from the United States and other countries, both students and educators are starting to recognise the need for teaching methods to be contextualised and designed based on national conditions and cultural characteristics; findings from this study manifest cultural fusion and collision in the process of importing and implementing entrepreneurial teaching methods; findings highlight that students expect a practice-based teaching approach for entrepreneurship courses taught by entrepreneurs and lecturers with start-up experience in an incubation centre or a business environment. Based on these findings, a contextualised hybrid teaching approach framework to entrepreneurship is proposed to accommodate the cultural setting better.

Implications
The findings from this research might prompt educators and practitioners to design innovative entrepreneurship teaching approaches and tools with specific consideration of their cultural context. It is anticipated that such a contextualised teaching approach would further facilitate entrepreneurial learning and promote start-up behaviour with nascent student entrepreneurs. It could also inspire policymakers to reflect and reconsider their position of wholesale adoption of entrepreneurship-related teaching approaches from other nations to their own culture.

Value/Originality
Little theoretical or empirical attention has been paid to the complexity of the cultural environment of teaching approaches to entrepreneurship education. This paper provides novel empirical insight into why cultural environment plays a critical role in teaching approaches to entrepreneurship education and how these teaching approaches can be culturally nuanced to better meet the needs of nascent student entrepreneurs in various cultural contexts.

Keywords: Entrepreneurship education, cultural context, teaching approaches, nascent student entrepreneurs

THE PATH TO ENTREPRENEURSHIP: SEARCHING AND LEARNING FROM ROLE MODELS

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Questions we care about
In this study, we address the function of role models for entrepreneurship students. By using entrepreneurs as role models, students can get a better and realistic picture of the complexity of the entrepreneurial path. Choosing whom to interview as role model can be diverse, but it can be problematic if, as a result of that choice, the learning effect in the same group of students is different.

Approach
We ask ourselves the question whether female and male students seek out different respondents to the extent, that the lessons learned differ significantly. They were instructed to look for an entrepreneur with a failure story. To answer this question we examine one group with 67 students, 14 of whom are female students and 53 are male students; we collected sex as a binary variable and leave the discussion about gender diversity out of this paper.

Results
In this paper, we identify with empirical evidence the differences in the way that male and female students approach an assignment in EE. With that information, we reflect the implications for their learning processes and learning experiences when the whole group receives the same assignment but different role models are found.

Implications
Our findings show differences between male and female students in four key aspects: the choice of interviewing a female or a male entrepreneur, the sector in which the company operates, the size of the company, and the decision of the entrepreneur to continue after problems. The group of students chose in most cases a male entrepreneur: male and females students chose overwhelmingly for a male entrepreneur. Another finding is that male students found entrepreneurs with bigger companies. Furthermore, and very important in relation to the research of failure and recovery, the decision to continue with the company after serious setbacks is also different: male students learn from different stories: those who stopped, continued or re started; while female students get the picture to start a whole new company after a failure event.

Value
More attention is needed in EE to provide equal possibilities for all students. The question for further exploration is whether female students are getting less out of the assignment because of their choice of an entrepreneur, and whether female students are being trained to follow male images of entrepreneurship. This may be caused by the fact that entrepreneurship education is primarily masculine in nature and inspires female students less.

Keywords: role models, entrepreneurship education, inspiring cases, sex differences

ENTREPRENEURSHIP AS EXISTENTIAL LEARNING:
THE MISSING LINK IN EFFECTUAL LEARNING PROCESSES

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Questions we care about (Objectives)

How can existential learning be incorporated in an effectual process course and how can it contribute to students becoming authentic and empowered individuals?

Approach

Drawing on teaching that focuses on the pre-idea phase of entrepreneurship, a course was developed to initiate a seven-step process. These seven steps were didactically designed to bring awareness to and evoke understanding of the individual's own inherent entrepreneurial potential. The process begun with identity development from 'who am I' and 'who I (might) want to be' to collaborative and co-creational interventions that include 'waste as a resource' 'heritage and culture as context' and incorporated story-telling and biographical narratives to bring awareness to and challenge the individual's capacity for change. Existential learning was used to support learner growth maturity and self-actualisation so that s/he could assess and understand her/his own capacity for change. The approach is partly predicated on Sarasvathy's effectuation approach, Bandura's ideas of self-efficacy in combination with Frick's work on the role of significant learning experiences.

Results

The data from student reflection logs from various cohorts was combined with the educator's experiences in the classroom. The findings reveal i) how students on the one hand embrace the chance to construct meaning for themselves based on their feelings, values, cognitive structures and existing knowledge and talents and ii) how students are conflicted because the way they are taught in their traditional classes and the existential-experiential approach are at opposite ends of a dichotomy and appear to be in conflict with what learning is.

Implications

Students are positioned as becoming people in a world outside of and after their time spent in the university. Evoking future visions of self, exploring the capacity one has to act in particular ways in specific contexts can potentially be explored through existential learning that is framed and supported in courses carefully designed to allow students to be and become for an unknown future. These courses do not replace other university teaching where about, for and through teaching is carried out for a different set of purposes. These courses challenge students to go beyond a cognitive understanding of knowledge to how much they engage themselves as emotional and situated individuals. However, it is important that existential learning is considered in some part of the university teaching that every student meets if they are to be able to enact as agentic citizens.

Value/Originality

To our knowledge, existential learning has yet to be invoked in entrepreneurship education

Keywords: Existential Learning Philosophy, Experiential Teaching Design, Identity

BARRIERS OF ENTREPRENEURIAL NURSING: A NEW AGENDA FOR HIGHER EDUCATION

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Objectives
This study explores how nurse education should focus on how entrepreneurs overcome their personal barriers to entrepreneurial nursing when creating their ventures. Although nurse entrepreneurs are crucial to the continuing evolution of healthcare, they face several barriers in their entrepreneurial journeys. Some of these barriers are strongly linked to their dual professional identities as being both nurses and entrepreneurs. While these barriers have been identified and described in the literature in the last twenty years, few have investigated how nurses overcome the barriers, and nurse education do not focus on the topic in their curricula although being of uttermost importance for nurse entrepreneurs.

Approach
This study is a qualitative, narrative inquiry of four nurse entrepreneurs. The participants shared their life stories through individual interviews, emphasising their entrepreneurial journeys; further, they have outlined their entrepreneurial processes to offer additional detail and increase the researchers' understanding and meaning. A narrative analysis on meaning was conducted via thematic analysis and the construction of new narratives.

Results
This paper identifies five distinctive barriers that nurse entrepreneurs face (resistance to change, patient risks, stigma, discrimination, and role conflicts) that exist in addition to the barriers that most entrepreneurs face. The authors suggests that nurses face a 'liability of nurseness' in their entrepreneurial activities that increases the general barriers. Nurse entrepreneurs overcome barriers to entrepreneurship through 1) a sense of belonging, 2) self-affirmation, and 3) external affirmation. Unlike most prior research on entrepreneurial nurses, this study contributes to the nursing literature and contextual entrepreneurship literature by portraying a heterogeneous group of entrepreneurial nurses.

Implications
This paper encourages higher education program directors and educators to offer entrepreneurship education for nursing students that highlights the barriers to entrepreneurship and supports students to overcome them. Overall, education must not stop at opportunity formation but refocus to include the full entrepreneurial journey. Furthermore, policymakers and managers in healthcare need to facilitate the development of an entrepreneurial identity among nurses. Stakeholders in healthcare are also encouraged to approach the negative attitudes towards entrepreneurship in their institutions, and promote a cultural change in healthcare.

Keywords: Nurse entrepreneurship, venture creation, barriers, narratives

SUPPORTING ENTERPRISING BEHAVIOUR IN DISADVANTAGED COMMUNITIES – A ROLE FOR HIGHER EDUCATION INSTITUTIONS?

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Questions we care about

Over the past two decades, entrepreneurship has become a global phenomenon, and governments and policymakers are paying increasing attention to supporting entrepreneurial activity (Riberio-Soriano and Galindo-Martin, 2012). Yet, despite such policy developments, the OCED (2019) has identified that several communities (including women, youth, seniors, unemployed and immigrants) remain disadvantaged and under-represented in terms of entrepreneurial activity. Inclusive entrepreneurship policies recognise the significant economic and social contribution these communities could make if greater encouragement and appropriate support was offered. This paper investigates the supportive role that Higher Education Institutions (HEIs) can play in strengthening social inclusion through inclusive entrepreneurship. In a novel contribution, the study broadens the perspective of entrepreneurship to enterprising behaviour which has a wider meaning and broader relevance beyond economic matters.

Approach

The research was conducted through a single, in-depth revelatory case study of an Irish HEI that is newly constituted and is developing an inner-city campus with a focus on community benefit. Rich qualitative data were collected through semi-structured interviews and participant observation of a HEI community engagement initiative with disadvantaged communities. Thematic analysis methods were used in the processes of generating codes, categories and themes leading to the findings of this study.

Results

The study identified the relevance of the enterprising behaviour concept for disadvantaged communities as a potential bridge to entrepreneurial activity. Moreover, the study identified an expanded and more inclusive role for HEIs in supporting entrepreneurial potential within disadvantaged communities.

Value/Originality

As an original contribution to knowledge, the study findings were synthesised with recognised constructs from the fields of (1) HEI Community Engagement, (2) Entrepreneurial Education and (3) Disadvantaged Communities in the presentation of an evidence-based framework to support HEIs in the development of inclusive, tailored entrepreneurial education initiatives.

Implications

In addition to several policy recommendations, this study lays the foundations for future research on the expanded role of HEIs within entrepreneurial ecosystems.

Keywords: Enterprising Behaviour, Universities, Community Engagement, Disadvantaged Communities, Entrepreneurial Education, Inclusive Entrepreneurship

THE EMOTIONAL DRIVE TOWARDS ENTREPRENEURSHIP

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Questions we care about (Objectives)
In this paper we are interested in how entrepreneurship education can develop entrepreneurial competences and identities among students. Kolb's learning styles (KLS) have been applied by various scholars to empirically test students' preferred learning style. In this paper, we investigated how the four learning styles (Doing, Observing, Reasoning and Emotions) play a role in students' confidence, control and competence as measured by Entrepreneurial Self-Efficacy (ESE), as well as in the students' Entrepreneurial Identity Aspiration (EIA). Questions that we as educator care about includes:

Does a relationship exist between KLS and ESE and/or EAI? Further if such a relationship exists between any of the KLS, will students' preference for a specific learning style show higher linkages with ESE and/or EIA? Can any of the KLS e.g., emotions play a role in students' thinking and entrepreneurial behaviour?

Approach
In this study we investigated the relationships between the four Kolb learning styles, and ESE and EIA. These constructs were chosen as they are fundamental in entrepreneurship pedagogy. We made use of established constructs and scales from the entrepreneurship literature for ESE and EIA measurements. The Reduced Kolb Learning Style Inventory, making use of principal correspondence analysis, was employed to determine the preferred learning styles. Quantitative research included students from Norway and South Africa enrolled in entrepreneurship courses.

Results
From the four preferred learning styles, three namely Doing, Reasoning and Observing, showed either moderate positive linkage or no linkages to ESE and EIA. On the other hand, Emotions as preferred learning style was strongly positively linked to both ESE and EIA. The study further found a direct effect on students' EIA from emotions, but also an indirect effect via ESE.

Implications
From the four Kolb learning styles, Emotions as the preferred learning style was strongly related to control and confidence measured as ESE and to "want to be an entrepreneur" measured as EIA. The positive relationship between Emotions as preferred learning style and the learning outcomes ESE and EIA contributes to the important role emotions fulfil in the entrepreneurial learning process. Emotions is an integral part of students' entrepreneurial learning and can create a desire to engage in entrepreneurial activities and develop their entrepreneurial competence (ESE) and identity (EIA).

Value/Originality
This study contributes to a field that has been under-researched, related to students' learning style preference, and entrepreneurial self-efficacy and identity. The study bridges the fields of learning styles and entrepreneurship education research investigating how students can think and act entrepreneurially. The research explores these links and points to how these insights could inform entrepreneurship education to provide pedagogy stimulating to students' learning potential. Furthermore, the study indicates the importance of emotions in entrepreneurship education, which is weakly reported on in literature.

Keywords: Experiential learning, Learning styles, Emotions, Entrepreneurial Self-Efficacy, Entrepreneurial Identity Aspiration, Entrepreneurship.

BUDDIES, BOOMERANGS AND BUILDERS:
ALUMNI ENGAGEMENT IN ENTREPRENEURSHIP EDUCATION ECOSYSTEMS

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Questions we care about (Objectives)

We do not know what motivates students with entrepreneurship skills to continue to be connected to the ecosystem after they have graduated, but we know that those that do engage in the ecosystem are valuable for the current students. It would therefore be very useful to know what motivates students with entrepreneurship skills to stay connected and contribute to the entrepreneurship education ecosystem and thereby be able to increase the alumni engagement. The question we care about is therefore: What motivates students with entrepreneurship skills to be connected to the ecosystem after they have graduated, and what encourages their alumni engagement in the ecosystem? By engagement we broadly refer to the alumni's actual participation in different activities and functions embedded in the university context that support entrepreneurial activity and entrepreneurial learning in the entrepreneurial ecosystem.

Approach

We formulate five hypotheses focusing on how educational experience, start-up activity after graduation, start-up termination after graduation, importance of peers and importance of professionals are associated with alumni engagement in the ecosystem. In order to test our hypotheses, we conduct ordinary least-squares linear (OLS) regression analyses based on the web-based responses from 452 alumni who have graduated from three Venture Creation Programs (VCP) in Sweden and Norway.

Results

The results suggest that post-graduation entrepreneurial activity that has not yet been terminated, as well as perceived importance of professionals related to the programme such as faculty, are factors that positively influence ecosystem engagement from entrepreneurship education alumni. Furthermore, the results indicate that if alumni perceive their entrepreneurial courses to have given them skills and knowledge or if alumni perceive networking with peers as important, they are *less* likely to engage with the entrepreneurial ecosystem.

Implications

Thus, our study suggests that professionals in the program should be sure to embed themselves in professional social relationships with students and alumni as well as possibly also contribute to the professional careers of alumni. In that way, the entrepreneurial programme will receive a "return on investment" through ecosystem contributions in the form of long-term commitment by engaged alumni.

Value/Originality

Our results suggest that university leaders and entrepreneurship educators are able to target and recruit the groups of alumni that are most likely to engage. In this paper, we identify this group to be those who are involved in new venture creation post-graduation, and those who have established what they see as valuable relationships with faculty, and therefore would like to give back. Furthermore, the seemingly negative impacts of skills and abilities learned through the programme as well as social relationships to peers on engagement provide interesting avenues for further research.

Key words: alumni engagement, entrepreneurship education ecosystem, venture creation programs

HOW DIGITAL PLATFORMS IMPACT STEM STUDENTS' ENTREPRENEURIAL SELF-EFFICACY AND INTENTION

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Abstract

Previous research on entrepreneurship education (EE), specifically directed to University students from STEM (Science, Technology, Engineering and Mathematics) fields, has been very scant, especially with regard to the use of digital technologies in supporting entrepreneurial learning.

This research investigates the impact of digital platforms adoption on students' entrepreneurial self-efficacy and intentions, focusing on the use of digital technologies in a graduate program at University level. Data collected data from 123 STEM students enrolled in a Strategy and Entrepreneurship mandatory course within a large university located in Italy are analyzed. Results show the positive impact of the digital technologies adoption on students' self-efficacy and intention to launch a novel entrepreneurial venture. The study proposes managerial and policy implications for improving the adoption of digital technologies in entrepreneurship education of STEM University students. Findings reveal that the adoption of digital tools in online system program may help increasing entrepreneurial attitude of STEM students, but we also revealed that behavior is strongly related to the social component of human interaction. Implications for practices regard the insights about the organization of online learning entrepreneurship education program that needs to be completed with a face-to-face activity to support the socialization aspects of projects and business plan development.

Keywords: Entrepreneurship education, digital technology, academic entrepreneurship, survey, STEM, Italy

THE CHALLENGE OF MANAGING STUDENTS IDENTITY IN SOCIAL ENTREPRENEURSHIP EDUCATION

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Questions
Social entrepreneurship education (SEE) is not just about developing bridging skills and dealing with competing logics. It is also about questioning students' personal intentions and moral value in relationship with their project and helping students in integrating those as part of their social entrepreneur's identity.

Approach
From the theoretical perspective of conversational experiential learning. We performed a systematic review of the SEE literature to better understand the extant concepts, methods and tools used in SE education and to explore to what extent these can support students' identity integration.

Results
Given the importance of identity integration, the extant obstacles for nurturing the process, as well as creative experimentations by SEE scholars, we theorize this process as 'education through social entrepreneurship', where students have conversational spaces to nurture their self-integrated identities.

Implications
We suggest that to develop such self-integration skills, SE education could help students to develop their 1) mindfulness about their personal values, intentions, motivations and related actions; 2) capacities to be influential and be influenced in collectives; and 3) awareness of other systemic influential positions, including those of absentees, on collective and individual actions and intentions.

Value/Originality
By considering the integrative process as a multi-level phenomenon through conversations, our model proposes an articulation of self and collective concepts, notably in terms of efficacy (beliefs and perceptions about the individual and collective capacity to act) and identity (beliefs and perceptions about 'who we are' and 'what we do'), which opens promising avenues for future research.

Keywords: Social entrepreneurship, education, conversational experiential learning, identity, efficacy

I'M NOT YOUR STEREOTYPE: GENDERING ENTREPRENEURIAL EDUCATION (EE)

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Questions we care about (objectives)

This study contributes to the body of knowledge of entrepreneurial educators' strategies to work towards gender inclusion in entrepreneurial education (EE). By illustrating how *gender stereotypes* and *gender bias* are constructed and reconstructed in EE. An important insight is taken from the study by (Jones, 2014), this author shows that entrepreneurs are presented in EE as a homogeneous group with similar character traits and an equal 'entrepreneurial mindset' (p. 244). This description portraits a right way to be an entrepreneur which is traditionally been associated with a white western man, masculine behaviour and masculine abilities (Jones, 2014). As a consequence, a paradox in EE appears; training and education reduces the gender gap on the one hand (Cheraghi and Schøtt, 2015), but at the same time it is also the place where the gender gap is maintained because these *gender stereotypes* are intertwined in this training and education (Korhonen, Komulainen and Räty, 2012). The aim of this paper is to use Social Role Theory in order to better understand the dynamics of gender in EE. This leads to the following research questions: what are the main mechanisms that contribute to gender-inclusive entrepreneurship education (EE) and how are the different mechanisms that contribute to gender inclusive entrepreneurship education (EE) integrated into the current curriculum?

Approach

In-depth interviews with 12 lecturers that teach/coach in the field of EE from across various faculties in a large University for Applied Sciences combined with newsletters created by one of largest EE programs at this institution (267 pages in 2020) is carried out. A semi-structured questionnaire was used to guide the in-depth interviews. Subsequently, discourse analysis gives insight into gendering in EE at the investigated institution.

Results

The main findings suggest that when questioned about the topic all respondents stressed the importance of gender equally, only a few seem to be aware of the need to address the issue in their classroom(s) while none of the programs currently adopt a gender perspective while coaching their potential entrepreneurs or when addressing how the entrepreneurial ecosystem functions.

Implications

These findings and perspectives point to the importance of recognizing that a "one size fits all" approach to curricula may not be appropriate, and that gender-sensitive programming, especially related to dealing with these gender stereotypes and gender bias, are needed. This means that in educational development there are opportunities to create better education and create equal opportunities for male and female students.

Value/originality

Women still form the minority amongst the population of (potential) entrepreneurs and find it more difficult to grow their venture due to a range of (institutional) barriers. This study shows that, thus far, EE insufficiently addresses this topic and points to opportunities for interventions for increasing the gender inclusiveness of the entrepreneurial ecosystem, especially for female ones, instilling in them the awareness and knowledge that as a female entrepreneur starting a business isn't without gendered challenges. This research therefore adds to the body of knowledge on the construction and reconstruction of gender stereotypes and gender bias in the field of EE.

Keywords: Entrepreneurial education (EE), Social Role Theory (SRT), incongruity, gender bias and gender stereotypes

BROADENING THE ENTREPRENEURIAL MINDSET BY TRAINING A LIFE DESIGN ATTITUDE

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Questions we care about

What if 'an entrepreneurial mindset' involves a too limited focus on value creation in a business context? and What if students need a broader focus and understanding of value- and meaning creation in their lives as such? How can we rethink and redefine 'the entrepreneurial mindset' in a way that better meets with the students' current needs for more life skills?

Approach

In a 6-week course in entrepreneurship, 2 x 50 students were introduced to Nordic Life Design, a learning concept that include a Life Design Attitude and a 4-foci Model. 'The 4-foci model' includes: an inner focus, an outer, business foci, an outer world focus and an other, people focus. The 4-foci model helps people train a broader focus, balance different foci and train flexible thinking. Additionally, The Life Design Attitude accentuates the different activities or approaches that relate to future skills and competences, like 'approaching complexity'. In this course the students will primarily be trained in activities that relate the inner- and outer, business focus. However, focus of this paper will be on the results working particularly with 'the inner focus'.

Results & Implication

Working with an inner focus in relation to entrepreneurship seems to strengthen the students' reflections about themselves, their leaning etc. Additionally, we find that the interventions has the ability to challenge and broaden established notions of entrepreneurship and thereby introduce new or shifted perspectives on professional-, educational- and personal roles and identity. As Siemens (2006) argues, there is a clear tendency in traditional education, that "Life stops when we learn". Our results indicate that the majority of students apply more holistic understandings of entrepreneurship that also encompasses more general life skills such as being able to seize opportunities in everyday life and enhance self-efficacy – an understanding that is not present before interventions. From our experiments there is a clear indication, that substantiates Siemens's claim, that there seems to be an obvious need for bringing human life into educations – also from a student-led perspective - to have a stronger connection between education and real life (Siemens, 2006) and to better meet with students current and paramount needs.

Value/originality

In a recent rapport from OECD the organization argues that future educational institutions should not only focus on students creating a job, but also focus on students' ability in creating 'quality in life' (OECD,2018). Yet, many educational institutions focus on entrepreneurship and value creation in relation to getting a job or creating business. This paper argues we need to introduce and train 'a life design attitude' that also train young students in 'tools for life´s maze' (Katznelson,2019).

Keywords: Entrepreneurial mindset; life design attitude; life formation; future skills; entrepreneurship education; life-long learning

HOW IS INTRAPRENEURSHIP EDUCATION DIFFERENT FROM ENTREPRENEURSHIP EDUCATION AND ENTERPRISE EDUCATION? – AND WHY SHOULD WE CARE?

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Questions we care about (Objectives)

As educators, we should concern ourselves with whether we are doing the best *we* can for students to perform the best *they* can. Entrepreneurship education (EE) is contextual (Thomassen et al, 2019). However, a lot of effort has been put into generalizing EE, attempting to identify the right content and method for it (Jones & English, 2004; Neck & Green, 2011; Balan & Metcalfe, 2012; Mutalimov et al, 2020). Often, EE is articulated as a dichotomy between new venture creation and all-encompassing enterprise, and Matley (2005) suggested a working definition of entrepreneurship that included intrapreneurship. But maybe it is time to care more about the differences? The majority of graduates proceed to become employees, yet teaching designs focus on entrepreneurship or enterprise rather than intrapreneurship. This contribution proposes taking a closer look at how intrapreneurship education (IE) is different from EE and enterprise education (EIE).

Approach

This is a conceptual paper. We explore what practical implications contextualisation of entrepreneurship can or should have on learning designs. First, we use mapping of existing literature (Hart, 1998) to explore the concepts of entrepreneurial behaviour, enterprise and entrepreneurship and compare and contrast it with research on intrapreneurship. Then we discuss the potential implications for learning designs using learning theory and explore literature on EE, EIE and IE. In conclusion we propose additional questions we care about.

Results

We differentiate between entrepreneurship, enterprise and intrapreneurship, based on in which context entrepreneurial behaviour takes place. Intrapreneurship shares many common traits with entrepreneurship. However, there are significant differences between creating new value within an organisation and creating new value independently. Mainly, the differences relate to navigation of organisational politics, structural barriers, authority, autonomy and challenges with implementing new ideas (Frank, Korunka, & Lueger, 2017) (Smith, Rees, & Murray, 2016). Enterprise applies broader than entrepreneurship and intrapreneurship. It applies to society and life as such and promotes freedom and choice (Jones & Iredale, 2010, 2014). Due to the indisputable differences, we argue that educators should consider the contextualisation of entrepreneurial behaviour in their learning designs.

Implications

Adopting argumentation about contextualisation of EE, educators must (re)consider their didactic designs. Contextualising EE will have an effect on key didactical elements and arguably influence students' ability to find meaning in learning designs. This contribution argues why IE should be different from EE and EIE. However, what remains unanswered is the *who, what, where, when and how* of IE. The study calls for more context-specific research on IE, for educational development of EE to better cater to the employee segment of the student body and finally, yet again, for clarity in terms of purpose in EE and definitions of entrepreneurship to avoid unnecessary tension and misconceptions due to rhetorical challenges.

Value/Originality

This contribution joins the choir for further contextualisation of EE (Thomassen et al, 2019). It is suggested that this contextualisation should be based on which context the students are most likely to unfold their entrepreneurial competences in upon graduation.

Keywords: Intrapreneurship Education, Contextualization, Meaningfulness, Entrepreneurship

ENTREPRENEURSHIP EDUCATION AND INTERNAL DIDACTIC TRANSPOSITION IN MADAGASCAR

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Question we care about

I propose to peek inside a classroom by studying how teachers in a third world country practice entrepreneurship education, when they are given a curriculum designed by an international organization based in Europe

Approach

As part of a one year long ethnographic study, I specifically examine how this curriculum is used by teachers in three vocational higher secondary schools in Madagascar. I participate in teacher's everyday life, preparing and delivering courses, as well as shared their logistical constraints

Results

My findings suggest that teachers will anchor their decisions to adapt the curriculum according to three constraints: their own experience and, learners' characteristics such as their level and the social contexts they are embedded into, and the schools situation, organization and logistical constraints

Implications

Observing and participating in teachers practice in different contexts allows to understand the gap between a pedagogy and how it unfolds in effect in the classroom. This points towards more in depth enquiry on the resources and constraints teachers have when teaching an entrepreneurship class. Entrepreneurship curriculum designs would benefit from this inquiry by allowing modularity and adaptability of pedagogical content to better fit different contexts.

Value/Originality

I use the didactic transposition as a theoretical lens to understand how teachers strategically select and adapt the teaching material they are provided with. I expand it to include elements on which teachers can perform this transposition independently, grouped into content, method, and timing.

Keywords: Teacher's practice, didactic transposition, curriculum adaptation

OLD MARRIAGE IN THE NEW HOUSE:
SELF-EFFICACY, PERCEIVED SUPPORT AND INTENTION IN CEE COUNTRIES

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Questions we care about (Objectives)
There are countries that for many reasons seem to be very similar, and when issuing opinions about them, we often do not consider whether there are any differences between them, or whether, despite apparent similarities, human actions are influenced by other factors. The main question we care about is: weather Latvia, Poland and Ukraine students' entrepreneurial intentions are driven by the same factors. We mainly look at self-efficacy, the perceived entrepreneurial knowledge results and support from family, education, and institutions.

Approach
The authors decided to use a quantitative approach as this study tries to seek empirical support for created hypotheses that have been developed on the basis of previous literature. We collected data using questionnaire, we use the measures developed by different Authors. The sample population comprised 2094 first year undergraduate students from three technical universities: Latvia, Poland, and Ukraine. We used hierarchical regression analysis employed Kruskal-Wallis test.

Results
The results of the study indicate that entrepreneurial self-efficacy, perceived entrepreneurial education results, perceived relational and educational support, significantly influence the students' intention to launch a venture. Analysing the results, it is also possible to conclude that there are significant differences between students from Latvia, Poland and Ukraine in their entrepreneurial intentions, entrepreneurial self-efficacy, perceived entrepreneurial education results, perceived relational, educational, and structural support.

Implications
As a consequence of our study, we argue that the national context should be considered when constructing support policies or educational programs. Secondly, we propose to use a component called perceived entrepreneurial education results, which can examine the perceived results of education at any level, in our case at the secondary school level. Thirdly, we provide explanations about the differences in research results, showing the different context in those three countries.

Value/Originality
This study will also contribute to the current literature on entrepreneurship, particularly in the CEE countries environment. We proved that issuing judgments or recommendations concerning entrepreneurial support, in particular educational, relational and structural, for quite similar countries, should be addressed separately. We showed that, despite a similar historical context, the analysed countries differ significantly in many of the aspects studied. We proposed to separate from ESE a component called Perceived Entrepreneurial Education Results, which can examine the perceived results of education at any level, in our case at the secondary school level.

Keywords: entrepreneurial intentions, entrepreneurial self-efficacy, perceived entrepreneurial support, CEE countries.

THE ROLE OF WORK-INTEGRATED LEARNING FOR NURTURING CORPORATE ENTREPRENEURS

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Questions we care about
How can we develop a learning environment preparing students interested in a corporate entrepreneurship career?

Approach
Even though corporate entrepreneurship is more likely a first career step for graduates (Kuratko & Morris, 2018) there is inadequate knowledge on how to develop conducive learning environments for corporate entrepreneurship. Based on work-integrated learning literature and data from a Master´s Program in Corporate Entrepreneurship at Lund University (Sweden) we take one first step to develop this knowledge. One main learning vessel in this Program is the corporate development project in which the students are put in a real-life working situation in an established company in line with pedagogy advocated in work-integrated learning (Kramer & Usher, 2011). The research question is: *What role does the corporate development project play as a work-integrated learning arena to prepare future corporate entrepreneurial graduates?* The data in the study is based on the students´ answers in a written reflection report that the students are asked to write in the end of the Program.

Results
Based on our data and work-integrated learning literature the paper concludes with a framework for our understanding of the interplay between different learning outcomes in the student's learning process undertaking a corporate development project. The framework also shows how the design of the corporate development project, internally or externally driven, shapes the learning outcomes.

Implications
The framework developed in this paper is based on data from one Master´s Program and future research should test the framework using data from other Master´s Programs in Corporate Entrepreneurship and using a larger number of projects. Faculty engaged in corporate entrepreneurship education can make use of the framework developed in this paper as a basis for designing and planning experiential teaching in corporate entrepreneurship.

Value/Originality
Earlier research on outcomes of entrepreneurship education has to a little extent focused on corporate entrepreneurship education. Based on our data and the work-integrated learning literature we therefore contribute with a framework for how the corporate development project can act as a bridge between education and a career in corporate entrepreneurship.

BRIDGING SENSEMAKING AND ENTREPRENEURIAL LEARNING IN ONLINE LEARNING SETTINGS

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Questions we care about

The current Covid-19 pandemic has established new momentum for investigating the move of entrepreneurial learning formats from a physical classroom setting to online settings. This transformation of learning formats has raised our curiosity about the implications for 'how to teach entrepreneurship' in that forum.

As this study is in a very preliminary phase, we hope to obtain feedback from fellow researchers at the conference.

Methodological Approach

To answer the above research question, the qualitative study takes an outset in Weick's approach to sensemaking by translating his seven properties into qualitative interview questions. We have interviewed three entrepreneurship educators that each represent three different cases of teaching entrepreneurship online. We link their statements and quotes to sensemaking and other theoretical linkages, for instance from theories on entrepreneurship education.

Preliminary results

Our current, however preliminary, analysis shows a sensemaking process on a micro-level, and that while the change in the learning environment was both sudden and drastic all entrepreneurship educators have focused on extracted cues and plausibility to define their own as well as the students' role in the new setting.

The results open for several perspectives. First, the educator role can be positioned in several ways when entrepreneurial learning moves to an online setting. Second, there is the aspect of the role of the student where the individual student operates in their own online learning space. Third, the relationship between educator and student that through the sensemaking lens opens a discussion about how this is to be understood in experiential learning processes.

Implications

Three central implications are expected of this emerging research project. First, we argue for the importance of understanding the dialogical relationship between the entrepreneurship educator and the student and how both actors share equal responsibility for the learning process when online. Secondly, the study links sensemaking to entrepreneurial online learning formats, thus also a proposal for how to fulfill expected learning outcomes. Finally, this study offers a viewpoint on the actual and ongoing debate on how to cope with online learning that currently presents a struggle.

Value/originality

Our research contributes to illuminate the challenges of the transformation of EE into online formats. We provide new knowledge about the educators' sensemaking processes and bring relevant advice and experience on the pedagogical side of teaching entrepreneurship online.

Keywords: Entrepreneurship education, Online learning, Sensemaking, Entrepreneurship educator, Educator roles