

## Filling in the Blanks: ‘Black Boxes’ in Enterprise/Entrepreneurship Education

### Introduction

Enterprise/entrepreneurship education (EEE) is the ‘new black’. Practitioners and policy makers alike promote the benefits of entrepreneurship education and entrepreneurial learning, as it is found to have a positive impact on a wide range of outcomes (Bacigalupo *et al.*, 2019) – so all universities have to have it; all students need to participate in it. The number of programmes and courses offered in entrepreneurship has therefore exploded in the past decades (Katz, 2008; Barnard *et al.*, 2019). In this period, entrepreneurial education has also become a research field in its own right (Fayolle, 2018), which among others can be seen in the expanding volume of publications and greater competition among entrepreneurship education scholars. Existing studies have been particularly adept in examining different forms of pedagogy (Pittaway and Cope, 2007a) and the way education influences students’ propensity for and intentions of entrepreneurship (Bae *et al.*, 2014). However, it is still a relatively young scholarly field that struggles for legitimacy (Fayolle, 2013), and there are needs for more robust, intellectual foundations that can inform and advance the current knowledge base, both at theoretical and methodological levels (Pittaway and Cope, 2007a; Fayolle, Verzat & Wapshott, 2016). The purposes of this Special Issue in the *Journal of Entrepreneurial Behavior and Research* on “Filling in the Blanks: ‘Black Boxes’ in Enterprise/Entrepreneurship Education” were therefore to explore four broad topic areas that, we believe, have been overlooked and thus received less attention and interest from entrepreneurial education scholars.

First, we sought research that focused, not only on outcomes that might be generated through EEE, but, also on different ways in which these outcomes can be developed and on the kinds of individuals who were participating in these educational processes. While some EEE efforts focus on “new venture start-ups,” there is a broad range of purposes beyond this goal, such as innovation, creativity, team building, design thinking, and social and environmental concerns that play large roles in what EEE has become. How then, do we make sense of this multitude of different outcomes, the processes that are designed to get there, and the kinds of people that participate in these programs with their varying levels of skills and interests (Lackeus, 2015)?

Second – related to the first goal - while intentions and self-efficacy measures have traditionally been a major focus for studying the outcomes of enterprise/entrepreneurship education (Nabi *et al.*, 2017), we sought to encourage submissions that would evaluate a broader range of outcome measures, particularly research that explores how EEE impacts the behaviours of individuals engaged in entrepreneurship.

Third, we sought manuscripts that explored the impact of context (Welter, 2011; Welter *et al.*, 2016) in EEE, noting that while the influence of culture, governmental rules, regulations, and political climate play a significant role in entrepreneurship, more effort could be undertaken to explore the specific settings in which EEE takes place. For example, how do the place and space (e.g., physical and social) in which EEE and learning occurs influence entrepreneurial activities and outcomes? Even if context is gaining a lot more interest in the entrepreneurship literature generally, the impact of context is a topic that is rarely addressed in the EEE literature despite the fact that innovative forms of EEE often encounter challenges in terms of the regulations set up by governments and universities to control and manage education and learning. Further, it seems that smaller, and specialized, universities and colleges that adopt on a higher component of creativity and that combine business with various forms of arts may have an easier time of experimenting with and implementing certain forms of EEE programs (Penaluna and Penaluna, 2009).

Finally, given that EEE and learning can be seen as subsets of education and learning in general, it is surprising that stronger connections to current scholarship in education and learning theory and practice have not been developed (Fayolle, *et al.*, 2016). Exploring how and why education

and learning “entrepreneurship” is similar or different to education and learning about other kinds of activities and topics (e.g., medicine, physics, chemistry, music, writing, rhetoric) might lead to fruitful insights, both for EEE, but, also to current understanding of how the nature of entrepreneurship affects learning more broadly speaking.

As a response to our call for papers, we received 35 submissions. Of these, 12 articles were sent out for review. Subsequently, during the review process and with the insights and help of our panel of anonymous expert reviewers, we selected six articles for publication. These articles address many albeit not all of the issues that were suggested in the call for papers, and, we will briefly identify their contributions later in the introduction. However, before proceeding we would like to provide a context for where these articles fit into prior EEE research and scholarship. We will then conclude this introduction by pointing out some suggestions for productive avenues for future research on EEE and pedagogy.

### **Enterprise/Entrepreneurship Education (EEE)**

Entrepreneurship is grounded in economic traditions, but has evolved in the past half century to include foundational contributions from psychology, social sciences and management, thus leading to emphasis not just on the economic output of entrepreneurial activity, but the individual and group characteristics of entrepreneurial individuals, the entrepreneurial process and social interactive impacts (Landström and Benner, 2010). There is general consensus that while there is not one set definition of entrepreneurship, there are commonalities across different definitions. These include the ability to manage uncertainty or resource acquisition and utilization to exemplify, and that to an extent, these abilities can be taught, leading to the development of an entrepreneurial competence, which can be applicable to both creation of new organizations (Ollila and Williams Middleton, 2011), and to entrepreneurial engagement within existing private organizations or public entities.

Entrepreneurship education has mainly emerged in the 20<sup>th</sup> century, hosted almost exclusively at schools of economics and business to start, following the theoretical research traditions, and slowly infiltrating other schools (e.g. engineering) and disciplines. The spread to new disciplines and contexts has in part triggered an expansion of terminology from entrepreneurship education, to entrepreneurial education, enterprise education, and entrepreneurial learning. The majority of the literature on entrepreneurship linked to education/learning comes from an Anglo-American tradition, with the narrow, mainly US-based definition of entrepreneurship as venture creation, and the broader UK-based enterprise definition addressing activity across organizational forms. Entrepreneurial education is a definition used to incorporate this spread, and in its current state is recognized as multi-disciplinary, in part to also address multiple audiences (such as women, immigrants, etc.) but with several limitations, including disparate theoretical anchoring and need for further methodological and assessment means (Hytti *et al.*, 2010).

Interest in EEE has generally been growing rapidly in the past decade. For instance, in a study carried out by the European Commission, the overarching conclusion was that EEE has a positive impact on a wide diversity of labour-market related outcomes (EC, 2015). In addition, it has become generally recognized that EEE is not only central for the development of society in terms of the creation of new ventures but even more important for impacting student identity building, developing social competence and resilience, fostering employability and providing strategies for life-long learning; in short, enabling individuals to become change makers in their own lives (Neck & Corbett, 2018).

Further, a focus on EEE has always served as a foundation in the development of entrepreneurship as an academic discipline (Landström, 2020:117). Indeed, an implicit goal in developing the entrepreneurship field at the university level assumes that teaching entrepreneurship goes hand-in-hand with research (Vesper, 2020). That is, as students demand and an interest for EEE

increases there should be, at the university level, an increased demand for academically qualified faculty to teach these courses. Therefore, EE should be perceived as more than just a ‘factory’ for creating high-growth new ventures. If we move beyond such a narrow interpretation, then it becomes critical how, when, and why students develop an entrepreneurial attitude, behaviour or competencies (Lackeus, 2015). Yet, given the apparent value of EEE, its relationship to scholarship in entrepreneurship appears to be caught between the practical value and outcomes of EEE versus a broader set of values of what EEE means. This broader set of values considers EEE as a way of learning, a process of meaning making, and the creation of value.

The above has resulted in a struggle of the entrepreneurship field for academic legitimacy in scholarship (MacMillan, 1989; 1991; 1993), which can be seen as a conscious shift away from engaging practicing entrepreneurs and other “in the field” entrepreneurial enablers (e.g., investors, venture capitalists, consultants, etc.) as the primary source of entrepreneurship teachers towards a cadre of individuals holding PhD’s with specialized knowledge of EEE. So, although EEE could have drifted towards a more practitioner-based, vocational approach it has taken a different path towards a scientific approach that places a greater emphasis on theory and a recognition of the science in the discipline. However, we still see this friction between the two approaches constantly being played out in the development of teaching materials and training programs compared to an emerging discourse on EEE and pedagogy in academic journal articles.

We are grateful that *IJEER* has allowed us to help move research on EEE to the forefront of the research agenda to stand out as a critical activity that all scholars need to engage in order to advance their teaching of entrepreneurship. However, interestingly, the bulk of the submissions for the special issue were either focused on classical measurement of student intentions or self-efficacy. Indeed, EEE and associated research at many universities assumes many taken-for-granted truths and circulates strong beliefs, primarily associated with the positive connotations and expectations of outcome. This includes models of education (new venture creation programmes) with their associated practices (business model canvas, lean start up and pitches). To advance our thinking and perspectives, it is, however, necessary to assume a critical stance and thus invite alternative voices such as critical analyses of EEE – in ways that aim at (collective) reflection on when, what kind and *if* EEE always is appropriate (Berglund *et al.*, 2020).

It is clear that not all students would become entrepreneurs even if they went through a venture creation programme. Alternative approaches based on experiential and transformational learning approaches with a focus on creativity and change may in this respect assist students in becoming change makers in existing organizations – and even in their own lives – thus relating to life-long learning [see for example, the application of the business model canvas to personal development (Clark *et al.*, 2012)]. Indeed, the first time a student enters the entrepreneurial classroom can be a challenge if the educator has pivoted the classroom and does not rely on the traditional means of communicating knowledge but operates with a more experiential approach. Students may see-saw between identities and learning modes, finding it difficult to immerse themselves in both the entrepreneurial learning experience and the need to obtain a good grade (Neergaard *et al.*, 2014; Nielsen & Gartner, 2017). Hence, there is a wide variation in student interests, skills, motivations and efforts, meaning that some students are more internally motivated than others, and that students tend to learn in different ways. Furthermore, there is a wide variation in the expected levels of performance of those behaviours in which educators want the students to engage.

The challenges we have noted cannot be addressed by any one article, book or special issue of a journal. Yet, we make progress incrementally as we chip away at these issues to realize a growing clarity about the nature of EEE and we are indeed encouraged by the contributions in this special issue for illuminating important insights into the questions we posed in the call for papers.

## Articles in the Special Issue

Hägg & Gabrielsson's (in this issue – insert page numbers) systematic review of the evolution of pedagogy in entrepreneurial education research offers an impressive overview and analysis of the past forty years of scholarship on this topic. They note that EEE has tended to bifurcate into:

*“entrepreneurship from a start-up perspective focused on the specific context of venture creation and an enterprising perspective focusing more broadly on personal development, mindset, skills and abilities.”* (Hägg & Gabrielsson, in this issue: p. #)

They explore this topic by using a “who-is-doing-what-for-whom-and-how” framework (Byrne, Fayolle, and Toutain, 2014; Fayolle, 2008; Toutain *et al.*, 2014) that delves into the characteristics of entrepreneurship instructors, the content of the instruction, the kinds of students this instruction is intended for, and, the teaching methods utilized. By taking an evolutionary approach towards the development of EEE, they trace how the discourse in EEE has changed from a focus on teacher-guided instructional models towards a stronger emphasis on the theoretical and philosophical foundations of experience-based learning. The review shows that research on EEE has evolved into a distinct scholarly domain that highly emphasizes a need to link entrepreneurship teaching to “real-world” and authentic environments. At the same time, the review also acknowledges the struggles that have increased in the last decade between distinct approaches or subfields about the roots of the subject and how to teach and learn entrepreneurship. The authors offer some very provocative and insightful suggestions for future research in EEE. It is worth noting their recommendation to recognize two distinct subfields of EEE (as noted above): one a more focused view on entrepreneurship as start-up, with attention to the specifics of its different forms (e.g., commercial, social, sustainable, etc.) of entrepreneurial activity, and the other on enterprising behaviour, with a focus on a broader set of skills and approaches that are oriented towards personal and societal development and change that utilizes and, yet, transcends ideas and methods from all disciplines. Inherent in this recommendation, is that entrepreneurship scholars should be more cognizant of their beliefs and assumptions of what entrepreneurship is (Gartner, 1990) as well as their beliefs and assumptions about the nature of experience (Hägg & Kurczewska; 2020).

The impact of context has rarely been addressed in the EEE literature compared with the recent surge in entrepreneurship scholarship, in general (Welter *et al.*, 2016). For example, the role of institutions and regulations set up by governments and universities yet remains underexplored (Walter and Block, 2016). However, context clearly plays an important role in what is possible, achievable, and appropriate in EEE (Urban and Kujinga, 2017; Refai and Klapper, 2016; Neergaard, 2017). Three of the articles in this special issue centre on context. They mainly do so from a university perspective. Universities are institutions, which as a key part of their activities, provide the context for the purpose of teaching and learning. Indeed, context impacts the design and delivery of EEE. However, many traditional contexts do not stimulate entrepreneurship or entrepreneurial learning (Gibb, 2002; Sogunro, 2004), e.g. lecture theatres constructed to hold 100+ students. This might be one of the reasons why student incubators, accelerator environments and co-working spaces have become a staple in most universities. Another is that entrepreneurial learning is often associated with ‘doing’ entrepreneurship (Neck and Corbett, 2018).

Thomassen, Williams Middleton, Ramsgaard, Neergaard & Warren (in this issue – insert page numbers) present a framework to understand how context has been addressed, and how it can be adapted and designed within EEE. This novel contribution builds on Pittaway and Cope (2007b) by positioning context as the main variable, or alternatively a design parameter towards understanding the contextual relationship with established connections between student intentionality, policy and context. The article considers contextual levels and elements within a macro-meso-micro framework,

advancing this in relation to questions that educators can use in designing EEE: ‘who, what, where, when’. It makes four assertions, that: 1) context in EEE is arbitrary; 2) context in EEE is both documented and diffuse; 3) educators have a limited span of control in relation to context elements; 4) a lack of “*ceteris paribus*” in EEE. It illustrates that the quest of past decades to establish a generic approach to EEE has given way to an understanding that EEE needs to be more tailored to the needs of different levels and professions. This article takes a first step towards an understanding of the role that context plays, not only in terms of micro, meso and macro levels, but also by acknowledging that what came before and what is already existing influences how we can derive value. Indeed, even if context is recognized as important, most analyses still neglect the importance of what came before. Every country, region, city and village community have a history and heritage that may either facilitate or hinder the emergence of enterprising activity (Hindle, 2010). Thus, inherent in this perspective is a realization that entrepreneurship is both space, place and time contingent. For example, entrepreneurship developed and actualized in a remote, rural economy may differ from that originating in urban inner cities. Entrepreneurship conceived by a student in nano-technology in Europe differs from that conceived by a student from the humanities in Latin America, and both may differ from that conceived by a woman in a remote village in Indonesia. The article opens up a timely and topical discussion of context and provides a bridge between thinking and research in conceptual, pedagogical and externally engaged considerations of EEE. We increasingly understand the effects and impact of social, political, economic, environmental and health-related contextual factors and this guides educators in how context influences and can be used when designing education.

The second article by William Middleton, Padilla-Melendez, Lockett, Quesade-Pallares and Jack (in this issue – insert page numbers) focuses on the university as an “Entrepreneurial Learning Space” by exploring the role of socialized learning in developing entrepreneurial competence. The article examines the different ways students utilize all of the physical and social spaces of the university in which they are embedded. The research emphasizes social interaction and each learner’s interactive sensemaking by acknowledging the influence of socialization on the constitution and integration of learning that leads to the development of entrepreneurial competence (Bacigalupo *et al.*, 2016). They illustrate how students develop entrepreneurial competence through formal education, extra-curricular activities, and socialization with key actors both within and outside of the university space. In particular, this research draws attention to the importance of learning through stakeholder interaction and mentorship. The article demonstrates how integrating formal and non-formal learning environments can help ‘solidify the personalized value of the entrepreneurial competence’. In so doing, this research adds to the literature of entrepreneurial learning based on entrepreneurial emergence (Pittaway and Thorpe, 2012; Pittaway *et al.*, 2015, Rae and Wang, 2015, Rusk and McGowan, 2015, Williams Middleton and Donnellon, 2014, Wright *et al.*, 2017).

The third article on the context of entrepreneurship by Pittaway, Aissauoi, Ferrier and Mass, (in this issue- insert page numbers), develops a multidimensional framework that identifies characteristics of entrepreneurial spaces within university settings. Using multiple methods and data through an action-based research effort, the authors study 57 entrepreneurship spaces at universities in the United States. The study engages with individuals who operate these spaces to delve into their purpose and use and suggests that spaces for innovation have: *cognitive* (e.g., biophilia, aesthetic, clarity of value and acoustic), *social* (e.g., sociopetal, intelligent technologies, modifiability/adaptability) and *supporting* dimensions (e.g., configuration, programming, materialization). Using the framework (Why? What? For Whom? How? For Which Results?) suggested by Fayolle (2008) to guide the development of entrepreneurship programs, the authors apply these questions to the use of space (Where?). The study generates a typology of five types of spaces: **Type 1** consists of ideation spaces (pre-incubation spaces and hatcheries), which include idea gestation spaces and idea sharing spaces; **Type 2** consists of incubators and accelerators and focus

on creating, launching and growing new ventures; **Type 3** consists of materialization spaces such as maker-spaces and proto-typing labs; **Type 4** consists of integrative spaces which are concerned with connecting all the entrepreneurial resources available at a university (e.g., hubs, gateways, bridges, and centers); and **Type 5** is the newly emerging entrepreneurial dorm where students live and interact on a day-to-day basis. Besides the important insight that “space matters” and that the purposeful and thoughtful design of spaces for various entrepreneurial purposes is a critical factor in developing EEE programs at universities, the identification and typology of different kinds of spaces for specific entrepreneurial purposes is a major contribution to EEE. Just as most universities have dedicated spaces for science (e.g., biology, chemistry and physics laboratories) and the arts (e.g., studios, theatres and performance spaces), enterprise/entrepreneurship courses and programs require their own unique spaces with features that support entrepreneurial creativity and effort.

Measuring impact of EEE is one of the major research areas within the field. Traditionally research has focused on measuring the impact of EEE on attitudes toward entrepreneurship and entrepreneurial intentions (Bae *et al.*, 2014; Fayolle & Gailly, 2015). This has entailed a paradox. Whilst EEE increasingly has claimed to rely on the broad aims beyond start-up and creation of organizations, it was not reflected in the impact assessments until quite recently. Hence, there is clearly room for impact studies with multidimensional outcomes, such as development of entrepreneurial competences (Lackéus and Sävetun, 2019). While entrepreneurial emotion is an emerging field within entrepreneurship research, research on emotions and affect in EEE impact is scarce (Keller and Kozlinska, 2019).

Lackéus ([in this issue – insert page numbers](#)) takes on the ambitious task of developing a new impact measurement when comparing the impact of different experiential approaches in EEE. The study covers a broad range of topics in entrepreneurship and enterprise education (EEE), from defining types of EEE to evaluating these types across a multitude of criteria. This article is ambitious in its intention to classify ways that EEE are offered and, then, to evaluate their efficacy. The article suggests that EEE can be seen as a progressive process that can be bifurcated into enterprise education which entails idea and artifact pedagogies and value creation pedagogies, and entrepreneurship education which entails mini-venture creation pedagogies and full-venture creation pedagogies. In the paper, the author conceptually differentiates between three approaches: **IACP** – Idea and Artifact Creation Pedagogy, **VaCP** – Value Creation Pedagogy, and **VeCP** – Venture Creation Pedagogy (VeCP, then, combines mini-venture creation and full-venture creation as pedagogies entailing very different goals). What Lackéus intentionally leaves out of this framework is teaching about entrepreneurship (as in lectures on facts and insights about entrepreneurship) or a focus on entrepreneurial traits. The research is based on a unique research design in which data was collected from 35 different sites in six waves, with a focus on a particular pedagogy at each of the studied venues. These sites involved participants in compulsory education (9-15 years), secondary education (10-18), and, higher and adult education (18 years and older). Altogether, there were 1,048 participants who provided 10,953 reports [using a unique phone app – see (Lackéus, 2020)], as well as 291 interviews. In order to allow for comparison across the different experiential education approaches with different learning goals, the study relies on an emotion-centric analytical lens as in the comparative study. Based on the study, the three approaches resulted in largely different outcomes. An analysis of the reports and interviews resulted in the generation of nine salient differences: (1) entrepreneurial competences, (2) entrepreneurial passion motivated by value or the venture, (3) general passion, (4) deeper learning of curriculum content knowledge/skills, (5) self-insight, (6) knowledge about entrepreneurship, (7) marketing skills, (8) social skills in leadership and (9) entrepreneurial self-efficacy. In evaluating the three pedagogies across these nine salient differences, the study clearly champions VaCP (Value Creation Pedagogy):

*“VaCP was the only pedagogical approach of the three to simultaneously produce strong effects on students’ entrepreneurial competencies, students’ engagement and motivation, and on deep learning of core curricular knowledge and skills. If teachers aim to reach a strong impact on all of these key factors, the only kind of entrepreneurial education able to deliver on this is thus VaCP.” (Lackéus, in this issue: #)*

Yet, there are many insights regarding the value of each of the three entrepreneurial pedagogies for enhancing the nine salient differences in learning outcomes. While the value creation pedagogy appears “too good to be true” in its ability to deliver such a significant impact on entrepreneurial learning, the evidence presented offers a compelling case that this approach should be considered as the primary pedagogy in EEE.

The final article in this special issue by Verduijn and Berglund (insert page numbers) provocatively opens up the “black box” of EEE, itself, through the application of insights from critical entrepreneurship studies (Berglund & Verduijn, 2018) to offer ways to both deconstruct and reconstruct entrepreneurship education.

*“Deconstructing as we see it is concerned with interrogating dominant constructions of entrepreneurship (Nodoushani and Nodoushani, 1999; Ogbor, 2000)... Taken together these approaches do not suggest to criticize and ‘stop’ entrepreneurship, but to enact it with more concerns for context – indeed, more concerns for global politics, and civil society – by resisting to adopt a too narrow interpretation, a one-size-fits-all approach, and avoiding to position entrepreneurship as ‘the solution’, denying its dark and grey sides (Hytti, 2018). This not only provides suggestions with regards to how to teach entrepreneurship in the classroom, but also for how we can rethink entrepreneurship curricula, programmes and the idea of the entrepreneurial university (Hytti, 2018; Tunstall, 2018).” (Verduijn and Berglund, in this issue: #-#)*

This process of deconstruction brings forth possibilities for reconstruction that involves developing and experimenting with alternative forms of: making, involvement, language, interaction, and spaces for entrepreneurship to be reimagined and revitalized. The article offers a conceptual narrative of critical entrepreneurship studies that are sceptical about entrepreneurship but also those that form hopeful attempts in order to broaden our understanding of entrepreneurship to a more affirmative stance. Inspired by Freire’s work (1970/1996; 1973; 1998), the authors not only interrogate many taken-for-granted assumptions of a neo-liberal view of entrepreneurship education, but also offer a substantial number of critical entrepreneurship educational exemplars that provide insights into the nature and value of entrepreneurship beyond its economic and monetary value. In deconstructing, the students are invited to interrogate taken-for-granted ideas and knowledge about entrepreneurship and in reconstructing they can generate their own alternative understandings of the entrepreneurship phenomenon. Berglund and Verduijn use exemplars, mainly from their edited book (Berglund and Verduijn, 2018) to show the different ways how this could be done. In EEE, we have seen an urge to trying to settle what EEE is by offering a definite answer to this (Hytti and O’Gorman, 2004). However, Berglund and Verduijn emphasize the need to keep EEE vital, continue to addressing provocative questions, and engaging in a continuous, iterative process of ‘unsettling’ and reinventing EEE (Berglund *et al.*, 2020).

This article is an important resource for identifying critical EEE programs, courses, exercises, and experiences that enable educators and students to both deconstruct and reconstruct entrepreneurship. It is also emphatically hopeful in demonstrating the use of critical entrepreneurship studies as methodology and perspective for revitalizing and continually renewing EEE. The article

thus provides a powerful coda for this special issue as it reflects on the current state of enterprise and entrepreneurship education while offering many ways for EEE to be reimagined and lived.

### **Conclusion: The “Filled” and the “Unfilled” Blanks**

Are the EEE blanks filled-in or not? The articles in this special issue provide many new insights into: how the field of EEE has progressed; how and why the context of EEE influences entrepreneurial learning; the value of a value creation pedagogy, and, the importance of deconstructing our taken-for-granted assumptions and practices and reconstructing these efforts into new imaginative creations. Half-filled. Yet, many of the questions about entrepreneurship education that were identified for this special issue remain unaddressed, such as those questions seeking linkages to the literature on education and learning. Un-filled.

We are nevertheless encouraged to see the energy, enthusiasm and effort devoted to developing the field of enterprise and entrepreneurship education. The level and quality of scholarship in EEE continues to grow and new outlets for publishing research on this topic are rising in stature. Yet (and, in academics, isn't there always a “yet”?) more research is certainly called for and needed (c.f., Byrne *et al.*, 2014; Fayolle, 2013; Kassean *et al.*, 2015; Neck and Corbett, 2018). As we reflect on the experience of developing this special issue – putting together the call, reading and evaluating all of the submissions, managing the process of manuscript review and rewriting, and, now this final publication – one major un-filled “blank” remains, namely that of providing linkages to the vast scholarship on education and learning. As one surveys entrepreneurship research, it is easy to find scholars from other disciplines such as psychology, sociology, economics and the humanities who have blended their disciplinary perspectives into various entrepreneurship research streams. *Yet*, it is surprising that educational scholars interested in teaching and learning have not been a substantial part of the scholarly community in enterprise and entrepreneurship education. Such a cross-fertilization, we believe, would be both appropriate and useful. Indeed, although the core idea of experiential learning theory has for long served as an underlying framework for developing knowledge on teaching and learning in EEE (e.g. Neck & Corbett, 2018), surprisingly few efforts have been made in developing appropriate assessment frameworks for EEE in order to increase the reliability and validity of teaching methods and student learning outcomes. In this respect, educational scholars have great potential to contribute with their domain-specific knowledge and insights about the breadth of learning theories and teaching practices that can be incorporated into contemporary knowledge and literature on EEE. For example, how is learning under conditions of uncertainty (March & Olsen, 1975) any different from entrepreneurial learning? How can we benefit from literature on group work and collaborative learning from educational science to develop an enhanced understanding of team-based learning approaches in EEE (Suonpää, 2013)? And how can we understand EEE through Mezirow's ideas about transformational learning (Cope, 2005)? And how can we tap into the literature on learning through reflection (Gibbs, 1998; Kolb *et al.*, 1999; Schön, 2010;)? Such an effort is sorely needed if the entrepreneurship area is to better grasp how the context and processes of entrepreneurial learning differ from other ways of learning, in general.

Finally, there is a need for research to confront the emerging challenges of EEE in the fast-changing context of the effects of the Coronavirus pandemic of 2020, since this seems to be altering the educational, institutional, social and economic norms, which have shaped its practices for many years, whilst introducing new problems and realities as well as, potentially, opportunities for innovation. In particular, how can we appropriately adapt and incorporate digital learning approaches in experiential EEE, if these approaches are going to be a staple of the future? And how does online learning affect the experiential component? These are all relevant questions to care about in the future of EEE.

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## REFERENCES

- Bacigalupo, M., Kampylis, P., Punie, Y. & Van Den Brande, G. (2016) “*EntreComp: The entrepreneurship competence framework*”. Luxembourg: JRC European Commission.
- Bae, T. J., Qian, S., Miao, C. & Fiet, J. O. (2014) “The Relationship between Entrepreneurship Education and Entrepreneurial Intentions: A Meta-analytic Review”, *Entrepreneurship Theory and Practice*, Vol. 38 No. 2, pp.217-254.
- Barnard, A., Pittz, T., & Vanevenhoven, J. (2019) “Entrepreneurship education in US community colleges: a review and analysis”, *Journal of Small Business and Enterprise Development*, Vol. 26 No. 2, pp. 190-208
- Berglund, K., Hytti, U., & Verduijn, K. (2020) “Unsettling Entrepreneurship Education”, *Entrepreneurship Education and Pedagogy*, Vol.3. No.3, pp.208-213 DOI: 2515127420921480.
- Berglund, K., & Verduijn, K. (2018). “*Revitalizing entrepreneurship education. Adopting a critical approach in the classroom*”, New York: Routledge.
- Byrne, J., Fayolle, A., and Toutain, O. (2014), “Entrepreneurship education: what we know and what we need to know”, Chell, E. and Karataş-Özkan, M. (Eds.), *The handbook of research on small business and entrepreneurship*, Edward Elgar, Cheltenham, pp. 261-288.
- Clark, T., Osterwalder, A. & Pigneur, Y. (2012). “*Business model you: A one-page method for reinventing your career*”, Hoboken, NJ: John Wiley & Sons.
- Cope, J. (2005) “Toward a Dynamic Learning Perspective of Entrepreneurship”, *Entrepreneurship Theory and Practice*, Vol 29. No. 4., pp.373-397
- Fayolle, A. (2008), “Entrepreneurship education at a crossroads: towards a more mature teaching field”, *Journal of Enterprising Culture*, Vol. 16 No. 4, pp.325-337
- Fayolle, A. (2013) “Personal Views on the Future of Entrepreneurship Education” *Entrepreneurship & Regional Development*, Vol. 25 No. 7-8, pp. 692-701
- Fayolle, A. (2018) “*A Research Agenda for Entrepreneurship Education*”, Edward Elgar Publishing.
- Fayolle, A., Gailly, B. & Lassas-Clerc, N. (2006) “Assessing the Impact of Entrepreneurship Education Programmes: A new Methodology”, *Journal of European Industrial Training*, Vol 30 No. 9, pp.701-720
- Fayolle, A., Verzat, C. & Wapshott, R. (2016) “In Quest of Legitimacy: The Theoretical and Methodological Foundations of Entrepreneurship Education Research”, *International Small Business Journal*, Vol. 34 No. 7, pp.895–904
- Freire, P. (1970/1996) “*Pedagogy of the oppressed*”, London: Penguin Book.
- Freire, P. (1973) “*Education for critical consciousness*”, New York: The Continuum Publishing Company.
- Freire, P. (1998) “*Pedagogy of freedom: Ethics, democracy, and civic courage*”, Oxford: Rowman & Littlefield Publishers.
- Gartner, W.B. (1990) “What are we talking about when we talk about entrepreneurship?”, *Journal of Business venturing*, Vol. 5 No. 1, pp.15-28.

- Gibb, A. (2002) "In pursuit of a new 'enterprise' and 'entrepreneurship' paradigm for learning: creative destruction, new values, new ways of doing things and new combinations of knowledge", *International Journal of Management Reviews*, Vol. 4 No.3, pp. 233-269.
- Gibbs, G. (1988) "*Learning by doing: A guide to teaching learning method*" Oxford: Oxford Brookes University
- Hägg, G. & Gabrielsson, J. (in this issue), A systematic literature review of the evolution of pedagogy in entrepreneurial education research, *International Journal of Entrepreneurial Behavior & Research*, <https://doi.org/10.1108/IJEBr-04-2018-0272>
- Hägg, G., & Kurczewska, A. (2020) "Towards a Learning Philosophy Based on Experience in Entrepreneurship Education", *Entrepreneurship Education and Pedagogy*, Vol.3 No.2, pp. 129-153.
- Hindle, K. (2010) "How community context affects entrepreneurial process: A diagnostic framework"; *Entrepreneurship and regional development*, Vol. 22 No.7-8, pp.599-647.
- Hytti, U. (2018) "Critical entrepreneurship education: a form of resistance to McEducation?", Berglund, K., and Verduijn, K. (Eds.), *Revitalizing Entrepreneurship Education. Adopting a Critical Approach in the Classroom*, Routledge, New York, pp. 228-234.
- Hytti, U., & O'Gorman, C. (2004). "What is "enterprise education"? An analysis of the objectives and methods of enterprise education programmes in four European countries", *Education+ training*, Vol, 46 No. 1, pp. 11-23
- Hytti, U., Stenholm, P., and Heinonen, J. (2010). "Perceived learning outcomes in entrepreneurship education: the impact of student motivation and team behavior". *Education + Training*, Vol. 52 No. 8/9, pp.587-606.
- Kassean, H., Vanevenhoven, J., Liguori, E. & Winkel, D.E. (2015) "Entrepreneurship Education: A Need for Reflection, Real-world Experience and Action". *International Journal of Entrepreneurial Behaviour and Research*, Vol. 21 No.5, pp.690-70.
- Katz, J. A. (2008) "Fully mature but not fully legitimate: A different perspective on the state of entrepreneurship education", *Journal of Small Business Management*, Vol.46 No.4, pp.550-566.
- Keller, P.G. and Kozlinska, I. (2019) "Entrepreneurial Affect and Emotions in Entrepreneurship Education Impact Research: A Systematic Review and Research Agenda", *Entrepreneurship Education and Pedagogy*, Vol. 2 No. 4, pp.281-307.
- Kolb, D. A., Boyatzis, R.E. & Mainmelis, C. (1999) "Experiential Learning Theory: Previous Research and New Directions", R. J. Sternberg and L. F. Zhang (Eds.), *Perspectives on cognitive, learning, and thinking styles*. NJ: Lawrence Erlbaum, 2000
- Lackeus, M (2015) "*Entrepreneurship in Education: What, why, when, how. Entrepreneurship360*", Background Paper. OECD.
- Lackéus and Sävetun (2019) "Assessing the Impact of Enterprise Education in Three Leading Swedish Compulsory Schools", *Journal of Small Business Management*, Vol. 57, pp. 33-59.
- Lackéus, M. (2020) Collecting digital research data through social media platforms: Can 'scientific social media' disrupt entrepreneurship research methods? W. B. Gartner & B. T. Teague (Eds.) *Research Handbook on Entrepreneurial Behavior, Practice and Process*. Cheltenham, UK: Edward Elgar. pp. 199-241.
- Lackéus, M. (in this issue). "Comparing the impact of three different experiential approaches to entrepreneurship in education", *International Journal of Entrepreneurial Behavior & Research*. . <https://doi.org/>

- Landström, H. (2020) "The Evolution of Entrepreneurship as a Scholarly Field", *Foundations and Trends® in Entrepreneurship*: Vol. 16, No. 2, pp. 65–243. DOI: 10.1561/03000000083.
- Landström, H. and M. J. Benner (2010) Entrepreneurship research: a history of scholarly migration. *Historical Foundations of Entrepreneurship Research*. H. Landström and F. T. Lohrke. Cheltenham, UK, Edward Elgar: 15-45.
- Macmillan, I. C. (1989) Toward a forum for entrepreneurship scholars. *Journal of Business Venturing*, 4(5): 289-290.
- MacMillan, I. C. (1991) "Delineating a forum for entrepreneurship scholars", *Journal of Business Venturing*, Vol. 6 No. 2, pp. 83-87.
- MacMillan, I. C. (1993) "The emerging forum for entrepreneurship scholars", *Journal of Business Venturing*, Vol. 8 No.5, pp. 377-381.
- March, J. G., & Olsen, J. P. (1975) "The uncertainty of the past: Organizational learning under ambiguity", *European journal of political research*, Vol. 3 No. 2, pp. 147-171.
- Nabi, G., Liñán, F., Fayolle, A., Krueger, N. & Walmsley, A. (2017) "The Impact of Entrepreneurship Education in higher Education: A Systematic Review and Research Agenda" *Academy of Management Learning & Education*, Vol.16 No.2, pp. 277-299.
- Neck, H. M., & Corbett, A. C. (2018) "The scholarship of teaching and learning entrepreneurship", *Entrepreneurship Education and Pedagogy*, Vol 1 No.1, pp. 8-41.
- Neergaard, H & Christensen, DR (2017) "Breaking the waves: Routines and rituals in entrepreneurship education", *Industry and Higher Education* Vol. 3 No. 2, pp.90-100
- Neergaard, H; Robinson, S; Jones, S (2014) "*Identity transformation: learning entrepreneurship through pedagogical nudging*", Paper presented at the 37th ISBE Conference, 5-6 November Manchester.
- Nielsen, S. S. & Gartner, W. B. (2017) "Am I a student and/or entrepreneur? Multiple identities in student entrepreneurship", *Education and Training*. Vol. 59 No. 2, pp. 135-154.
- Nodoushani, O., & Nodoushani, P. A. (1999) "A deconstructionist theory of entrepreneurship: A note", *American Business Review*, Vol. 17 No.1, p. 45.
- Ogbor, J. O. (2000). "Mythicizing and reification in entrepreneurial discourse: Ideology-critique of entrepreneurial studies", *Journal of Management Studies*, Vol. 37 No. 5, pp. 605-635.
- Ollila, S. and K. Williams Middleton (2011) "The venture creation approach: integrating entrepreneurial education and incubation at the university", *International Journal of Entrepreneurship and Innovation Management*, Vol. 13 No. 2, pp. 161-178.
- Penaluna, A. & Penaluna, K. (2009) "Assessing Creativity; drawing from the experience of the UK's Creative Design Educators", *Education + Training*, Vol. 51, No 8-9, pp. 718-732
- Pittaway, L., Aissaoui, R., Ferrier, M. and Mass, P. (in this issue), "University spaces for entrepreneurship: a process model", *International Journal of Entrepreneurial Behavior & Research*, Vol. No. <https://doi.org/10.1108/IJEBr-09-2018-0584>
- Pittaway, L. & Cope, J. (2007a) "Entrepreneurship Education: A Systematic Review of the Evidence" *International Small Business Journal*, Vol. 25 No.5, pp. 479-510
- Pittaway, L. & Cope, J. (2007b) "Simulating Entrepreneurial Learning: Integrating experiential and Collaborative Approaches to Learning", *Management Learning*, Vol.38 No.2, pp. 211-233
- Pittaway, L. A., Gazzard, J., Shore, A. & Williamson, T. (2015), "Student clubs: experiences in entrepreneurial learning", *Entrepreneurship & Regional Development*, Vol. 27 No. 3/4, pp. 127-153
- Pittaway, L. & Thorpe, R. (2012) "A framework for entrepreneurial learning: A tribute to Jason Cope", *Entrepreneurship & Regional Development*, Vol. 24 No. 9-10, pp. 837-859.
- Rae, D. & Wang, C. L. (2015), "*Entrepreneurial Learning: New Perspectives in Research, Education and Practice*", Routledge, New York, NY USA.

- Refai, D. & Klapper, R. (2016) "Enterprise Education in Pharmacy Schools: Experiential Learning in Institutionally Constrained Contexts" *International Journal of Entrepreneurial Behaviour and Research*, Vol. 22 No. 4, pp. 485-509.
- Rusk, M. & McGowan, P. (2015) "*Entrepreneurial learning in context: An exploration of learning models in different domains*". European Conference on Innovation and Entrepreneurship.
- Schön, D. A. (2010) "Educating the reflective practitioner: toward a new design for teaching and learning in the professions", *Australian Journal of Adult Learning* Vol.50 No.2, pp. 448-451.
- Sugonro (2004)
- Suonpää, M. (2013). "*Constructing an Opportunity-Centred Collaborative Learning Model through and for Entrepreneurship*", PhD thesis, University of Jyväskylä.
- Thomassen, M.L., Williams Middleton, K., Ramsgaard, M.B., Neergaard, H. and Warren, L. (in this issue), "Conceptualizing context in entrepreneurship education: a literature review", *International Journal of Entrepreneurial Behavior & Research*, Vol. No. <https://doi.org/10.1108/IJEBR-04-2018-0258>
- Toutain, O., Gaujard, C., Mueller, S., and Bornard, F. (2014), "Dans quel écosystème éducatif entrepreneurial vous retrouvez-vous?", *Entreprendre & Innover*, No. 23, pp. 31-44.
- Tunstall, R. (2018), "Education or exploitation? Reflecting on the entrepreneurial university and the role of the entrepreneurship educator", Berglund, K., & Verduijn, K. (Eds.), *Revitalizing Entrepreneurship Education. Adopting a Critical Approach in the Classroom*, Routledge, New York, pp. 25-40.
- Urban, B & Kujinga, L (2017) "The Institutional Environment and Social Entrepreneurship Intentions", *International Journal of Entrepreneurial Behaviour and Research*, Vol. 23 No. 4, pp. 638-655.
- Verduijn, K. and Berglund, K. (in this issue), Pedagogical invention in entrepreneurship education: Adopting a critical approach in the classroom, *International Journal of Entrepreneurial Behavior & Research*, Vol. No. <https://doi.org/10.1108/IJEBR-04-2018-0274>.
- Vesper, K.H. (2020). Personal Communication. May 27, 2020.
- Walter, S. G., & Block, J. H. (2016) "Outcomes of Entrepreneurship Education: An Institutional Perspective", *Journal of Business Venturing*, Vol. 31 No. 2, pp. 216-233
- Welter, F. (2011) "Contextualizing Entrepreneurship—Conceptual Challenges and Ways Forward", *Entrepreneurship Theory and Practice*, Vol. 35 No. 1, pp. 165-184
- Welter, F., Gartner, W. B., & Wright, M. (2016) "The Context of Contextualizing Contexts. Welter, F., Gartner W.B. & Wright, M. (Eds), "*A Research Agenda for Entrepreneurship and Context*", pp. 1-15, Edward Elgar Publishing, Cheltenham, UK
- Williams Middleton, K., Padilla-Meléndez, A., Lockett, N., Quesada-Pallarès, C. and Jack, S. (in this issue), "The university as an entrepreneurial learning space: The role of socialized learning in developing entrepreneurial competence", *International Journal of Entrepreneurial Behavior & Research*, Vol. No. <https://doi.org/10.1108/IJEBR-04-2018-0263>
- Williams Middleton, K. & Donnellon, A. (2014), "Personalizing Entrepreneurial Learning: A Pedagogy for Facilitating the Know Why". *Entrepreneurship Research Journal*, Vol. 4, No. 2, pp. 167-204.
- Wright, M., Siegel, D. S. & Mustar, P. (2017) "An emerging ecosystem for student start-ups", *Journal of Technology Transfer*, Vol. 42, No. 4, pp. 909-922.