Routledge
Taylor & Francis Group

Personal views on the future of entrepreneurship education

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Entrepreneurship education is growing worldwide, but key educational and didactical issues remain. What are we talking about when we talk about entrepreneurship education? What are we really doing when we teach or educate people in entrepreneurship, in terms of the nature and the impact of our interventions? What do we know about the appropriateness, the relevancy, the coherency, the social usefulness and the efficiency of our initiatives and practices in entrepreneurship education? Addressing these issues and challenges, this article suggests that at least two major evolutions might reinforce the future of entrepreneurship education. First, we need strong intellectual and conceptual foundations, drawing from the fields of entrepreneurship and education, to strengthen our entrepreneurship courses. And finally, we also need to deeply reflect on our practices, as researchers and educators, taking a more critical stance toward a too often adopted "taken for granted" position.

Keywords: entrepreneurship education; educational issues; entrepreneurship education research; teaching model; future of entrepreneurship education

> Ideas about the future are more fruitful than the future itself
>
> Henri Bergson

1. Introduction

As regularly reported over the past decade, entrepreneurship education (EE) is booming worldwide (see notably Katz 2003; Kuratko 2005; Neck and Greene 2011). Although most entrepreneurship programmes and courses are offered at the university level, more and more initiatives and interventions are emerging in primary and secondary schools. An ever-increasing number of publications, reports, conferences and conference proceedings focus on EE. Given that it is a hot topic on the political agenda, projects are sprouting up everywhere, developed by universities and other higher education institutions at both national and European levels. The Organisation for Economic Co-operation and Development (OECD), for example, is currently involved in advising governments and universities in countries such as Germany or Tunisia with a view to improving the strategies, structures and practices aimed at implementing and developing EE.[1] The European Commission is also at the forefront of this political commitment and the Enterprise and

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Industry Directorate General (2012) launched a 'Call for Proposals' in relation to EE with a €2,450,000 grant programme aimed at supporting between four and eight high-value projects in EE at the European level.

Entrepreneurship, in general, is proving increasingly popular in business schools, engineering schools, universities and educational institutions. There is commitment, intellectual and emotional investment and passion among the educators, instructors and all the people engaged in the EE. Yet, we need to stand back and reflect upon our practices and what we talk about when we talk about EE. What are we really doing when we teach or train people in entrepreneurship, in terms of the nature and the impact of our interventions? What do we know about the appropriateness, relevance, coherence, social usefulness and efficiency of our initiatives and practices in EE?

In view of these issues and challenges, I would suggest that, for the future of EE, at least two major evolutions are required. First, we need robust theoretical and conceptual foundations, drawing from the fields of entrepreneurship and education to support entrepreneurship programmes and courses. Second, we need to reflect upon our practices and take a more critical stance, breaking away from the far too common 'taken for granted' position. I extend my arguments in the rest of this essay.

Talking about the future of EE is a complex exercise. Obviously, I have no power in predicting the future. The main objective of this essay is simply to share my ideas and thoughts about the future of EE after having presented what we know and what we need to know on this topic. I therefore begin my essay by discussing the state of the art of EE, based on a set of ongoing research. Discussing the future of EE seems possible if – and only if – we combine our knowledge from the past and present. I discuss the future of EE mainly from a research-based point of view.

2. What we know and what we need to know about EE

Based on the three recent literature reviews (2012–2013) more or less directly related to EE, I propose here a state of the art of EE. The main insights from these literature reviews are categorized and commented using the different dimensions of a teaching model for EE.

2.1. *Three reviews of EE literature*

In collaboration with several co-authors, in the past year, we produced three extensive reviews of the literature. The first review covers the period of 1984–2011, with a clear focus on EE (Byrne, Fayolle, and Toutain Forthcoming). Around 100 articles published in five leading entrepreneurship journals (*Journal of Business Venturing*, *Entrepreneurship Theory & Practice*, *Journal of Small Business Management*, *Entrepreneurship & Regional Development* and *International Small Business Journal*) and in two high-impact factor education journals (*Academy of Management Learning & Education* and *Journal of Management Education*) have been selected and analysed. The articles have been categorized into five groups: state of the play, specific audiences and special needs, measurement and evaluation, entrepreneurial learning, and teaching methodology and mediums.

The second literature review covers the period between 2004 and 2012, and focuses more particularly on the impact of EE on graduate entrepreneurship (Nabi et al. 2013). Expanding on the work by Pittaway and Cope (2007), the same systematic literature review methodology has been used. A total of 102 papers have been identified and

analysed using the following three themes: types of theoretical underpinnings and methods, types of EE interventions and types of impacts.

Finally, the third literature review focuses more specifically on entrepreneurial intention (Fayolle and Linan 2013). A total of 220 articles published over the period of 2006–2012 have been selected and analysed. Among them, 49 articles investigate the relationship between EE and entrepreneurial intention. The vast majority of these contributions are concerned with the assessment of EE interventions.

2.2. *A state of the art of EE*

To help me in presenting what we know and what we need to know based on the aforementioned reviews of the literature, I use an overarching unifying framework – a generic teaching model for EE (Fayolle and Gailly 2008). The concept of 'teaching model' is well known in education science (see, for instance, Anderson [1995] or Joyce and Weil [1996]) but rarely used in entrepreneurship, where there is no common framework reflecting the key philosophical and didactical dimensions of EE and teaching. Consequently, I first address the two main levels of the teaching model framework (Figure 1) before developing more general insights drawing from the literature reviews.
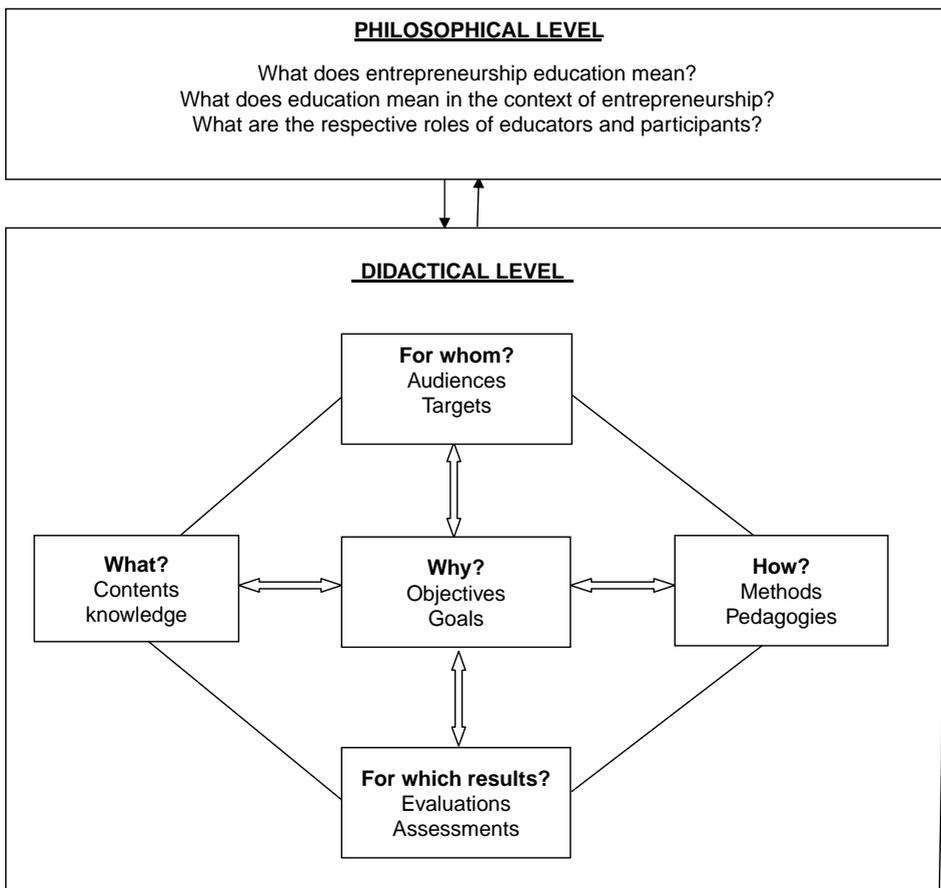

Figure 1. A generic teaching model in entrepreneurship education.

2.2.1. *What we know and need to know at the philosophical level*

The philosophical level aims at defining the teaching object and the conceptions of education that guide and determine the roles of educators and participants in a given EE intervention. There are numerous definitions of enterprise and entrepreneurship among higher educational institutions, but in the EE articles we have reviewed, EE is rarely defined or conceptualized. Studies into who entrepreneurship educators are and what they really do in their interventions are sorely missing. Whether educators and instructors in EE need to have prior entrepreneurial expertise is also an issue that has not been examined in the literature. One observation that we made following our literature reviews is that among the hundreds of articles reviewed, no research really focuses on ontological, epistemological and ethical issues. For example, what role and place do objectivist, subjectivist and constructivist philosophical paradigms and postures assume in EE? Is EE filling a pail or lighting a fire (behaviouristic and constructivist schools of thought in education) or both? EE research should address these issues and examine the most appropriate didactical settings and institutional conditions for each philosophical posture. In this regard, at the crossroads of philosophy and educational psychology, examining how individuals actually learn could lead educators and instructors to better conceptualize their philosophical posture and role.

2.2.2. *What we know and need to know at the didactical level*

The didactical level relates to making the most appropriate choices, with regard to a specific audience and the knowledge educators have about the participants (psychological profile and background), in terms of objectives, contents, methods and expected results (evaluation). The best choices also depend on the institutional conditions (opportunities and constraints in terms of culture, allocated space, time, support, resources, etc.). Our literature reviews reveal a great variation in EE programmes and courses.

- *Audiences in EE*. Research in EE offers insights into a great variety of audiences: secondary and upper-secondary pupils and students; students engaged in a range of disciplines, from various socio-demographic backgrounds and with different levels of motivation and different aspirations towards entrepreneurship; participants belonging to disadvantaged or under-represented groups (e.g. women, unemployed and immigrants), entrepreneurs and small-business owners. However, we lack knowledge regarding the implications of such variety: for instance, what are the best combinations of objectives, contents and teaching methods when addressing the needs and the specificities of each particular audience?
- *Objectives in EE*. There are a number of objectives at both the pedagogical and socio-economic levels for EE programmes and courses. However, few articles go beyond the description of contents and methods to consider the rationale leading to effective didactical designs.
- *Contents in EE*. Pride of place is given to the business planning approach and the functional knowledge supporting the new venture creation process (Honig 2004). Contents are often based on the most popular textbooks in entrepreneurship and tend to reflect the nature (opportunity-centred) and the dynamics of the entrepreneurial process (opportunity identification, evaluation and exploitation; Shane 2003). However, Edelman, Manolova, and Bruch (2008) have highlighted the existence of a gap between what we teach in entrepreneurship and what entrepreneurs do. This issue is not currently addressed by the EE research. One of our reviews highlights

the prevalence of entrepreneurial learning based on the processes of opportunity identification, evaluation and exploitation. However, this conception is not criticized or contrasted with the other views on entrepreneurial learning. The theories of effectuation (Sarasvathy 2001) and bricolage (Baker and Nelson 2005) offer alternative views on how entrepreneurs think, make decisions, behave and act entrepreneurially. In this regard, EE research could be helpful in better understanding the concepts supporting entrepreneurial learning and the development of entrepreneurial competences (the latter being strongly related to the former), as well as how to incorporate effectuation and bricolage and related entrepreneurial behaviours at the content level (Fisher 2012). Finally, according to our findings, there is no research examining how to mix professional (practice-oriented) and theoretical knowledge in relation to the other components of the didactical setting.

- *Methods in EE*. Looking at the literature on EE, a number of articles emphasize the importance of 'active', 'experiential', 'learning by doing' and 'real-world' pedagogies. The literature also highlights what we call 'entrepreneurial' learning based on such methods, but is experiential really experiential? What do we mean by 'learning by doing' pedagogies? Most articles included in our reviews did not provide enough detail to accurately assess the nature of the interventions beyond generalities. The main focus is on active pedagogies, but little evidence is provided regarding the adequacy between methods used and audience specificities, methods and contents, methods and institutional constraints (culture, time, space and resources) and so on. In the same line of thought, few studies set out to compare the effectiveness and efficiency of different teaching methods used with same-profile students or with the same types of objectives. Finally, few articles examine the relevance and effectiveness of using internet-based and computer-based technologies (e.g. distance learning), although these could be valuable teaching methods in EE.

- *Evaluation*. Surprisingly, despite the importance of the issue from a policy-maker point of view, little research is available concerning the assessment and measurement of EE programmes and courses.[2] Yet, entrepreneurial outcomes and, more generally, the effectiveness of EE are key issues for both policy-makers and educators. Martin, McNally, and Kay (2013) in the article 'Examining the formation of human capital in entrepreneurship: A meta-analysis of EE outcomes' has identified and analysed 42 studies ranging from 1979 to 2011. In their survey, 37 of 42 articles have been published in the past decade. Their meta-analysis suggests that EE is positively associated with entrepreneurship-related human capital assets (knowledge, skills, positive perceptions of entrepreneurship and intentions to become an entrepreneur). EE is also associated with entrepreneurship outcomes (new venture creation and entrepreneurial performance). However, some contradictory results can be observed, which relate to the lack of methodological rigour and the non-inclusion of moderators in most studies. Future research needs to meet the highest standards in terms of research methodology: pre- and post-EE intervention measures, inclusion of treatment and control groups and random assignment. We also need to use research designs that include potential moderators of the relationship between EE and both entrepreneurship-related human capital and entrepreneurship outcomes. In order to address the above needs, EE scholars could find in the field of education valuable inspiration, theoretical frameworks, methods and concepts for their own research.

2.2.3. *What we know from a general perspective*

The literature reviews we conducted revealed the following limitations:

- *Fragmentation*. EE research is highly fragmented and not cumulative. I could make the same kind of observation about entrepreneurship research, but since the beginning of the third millennium, Shane and Venkataraman (2000) have contributed to re-focusing entrepreneurship research within a stronger continuum focused on the processes by which opportunities to create new products and services are identified, evaluated and exploited. Sarasvathy (2001) has also contributed to reducing the level of fragmentation by showing the importance of effectuation. In EE, there are no such research trends and perspectives to build on.
- *Lack of theory*. Our literature reviews reveal a lack of theory-driven research. In contrast with the observation made by Wiklund et al. (2011) about entrepreneurship research becoming more and more theory-driven, research on EE appears less theoretically grounded (Bechard and Gregoire 2005). In one of our literature reviews, 25% of the articles analysed did not clearly refer to a specific theoretical approach or were not theoretically grounded (Nabi et al. 2013). These articles offer a review of the literature on the topic or the research question but do not use a specific theoretical framework.
- *Lack of critical approach*. Critical studies and approaches are missing in EE. In most cases, EE researchers do not question their approaches, assumptions and practices in doing research in EE. They seem reluctant to explore EE research issues that call for out-of-the-box thinking, by borrowing, for instance, concepts or methods from other fields. How many EE researchers make use of contributions from educational psychology or from the education evaluation literature? How many EE researchers have investigated possible explanations for the contradictory results observed in empirical studies aimed at evaluating the impact of EE?
- *Lack of legitimacy*. As a consequence, due to the lack of theoretical grounding, the lack of methodological rigour, the lack of critical approach and the lack of maturity, research on EE appears largely marginalized in top-tier entrepreneurship journals and in the best entrepreneurship conferences. This is a real problem for researchers who have chosen to focus on this issue.

3. Ideas and thoughts for the future of EE

Teachers and academics in the field of entrepreneurship would greatly benefit from re-thinking how they approach EE (Honig 2004; Neck and Greene 2011). This is really what this essay is about, suggesting that EE needs to focus on the future supported by the following three strategies: *target*, *connect* and *reflect*.

3.1. *Target*

As EE is a very heterogeneous domain, research should lead to the development of useful typologies and taxonomies. The outcomes of this stream of research could lead researchers and educators to design and experiment specific teaching models (Béchard and Gregoire 2007; Fayolle and Gailly 2008).

EE should also focus on entrepreneurship competences and more specifically on soft skills such as relational, conceptual, organizing and commitment competences (Man, Lau, and Chan 2002). There is a strong need to take into consideration the relevant concepts

used in the entrepreneurship literature regarding the development of an entrepreneurial mindset and entrepreneurial thinking (Carsrud and Brännback 2009), entrepreneurial action (Frese 2009), entrepreneurial method (Sarasvathy and Venkataraman 2011), effectuation and causation (Sarasvathy 2001), and bricolage (Baker and Nelson 2005). Researchers and educators should work together to design contents and methods incorporating these components in their teachings. In this light, EE gives the human dimension a greater place and role. EE still mainly serves as a 'factory' producing start-ups, and in this perspective, the business-planning approach and functional dimensions play a key role (Honig 2004). EE should rather be more a 'factory' designed to produce (future) entrepreneurs capable of thinking, acting and making decisions in a wide range of situations and contexts. Moreover, when they engage in real-life entrepreneurial situations, novice entrepreneurs (as educators in higher education institutions, we are teaching people who have never started a business) deal with novelty, change, uncertainty and contingency. Under these conditions, they are incompetent, ignorant and adopt experimentation-based behaviours. Borrowing from theories and concepts from both entrepreneurship and education, we should 'invent' a 'trial and error' conception of EE.

3.2. *Connect*

EE is largely disconnected from the field of education, but EE is at the crossroads of entrepreneurship and education. Consequently, EE needs to clearly and accurately combine knowledge from both the fields of entrepreneurship and education. This first connection could be useful in addressing several issues: the concept of teaching model could be usefully applied to the field of EE, along with other education theories, concepts and methods, in order to better assess the effects of EE, thus improving our understanding of the way individuals learn, for instance. We know that the theories of educational evaluation are largely unknown (and therefore unused) in EE research. But, connecting to the field of education, six general approaches to educational evaluation can be identified: goal-based evaluation, goal-free evaluation, responsive evaluation, systems evaluation, professional review and quasi-legal (Eseryel 2002). Among these, goal-based and systems-based approaches are predominantly used in the evaluation of educational programmes (Phillips 1991). For the goal-based evaluation methods, Kirkpatrick's framework (1959) remains the most influential, distinguishing four levels of evaluation: reaction, learning, behaviour and results. For the systems-based approaches, several models can be used, such as the Context, Input, Process and Product model (Worthen and Sanders 1987); the Training Validation System model (Fitz-Enz 1994) and the Input, Process, Output and Outcome model (Bushnell 1990). We therefore encourage EE researchers to borrow from the field of education evaluation concepts and theoretical frameworks that could prove highly valuable for their research.

EE is also disconnected from the entrepreneurial practice as shown by Edelman, Manolova, and Bruch (2008). EE research and practice could address key problems experienced by entrepreneurs in a diversity of situations and contexts, by shedding some light on how (in terms of ways, strategies, means, competences, etc.) entrepreneurs learn to solve or to deal with the problems they are facing. This could be done by keeping close to the real-life world of entrepreneurs, by observing them, regularly meeting them and discussing their concerns. Educating people about the kinds of problems faced by entrepreneurs can be done using problem-based learning pedagogies. This type of approach could also yield new theoretical and pedagogical insights into another important

issue of EE: how to create the right conditions to ensure that the knowledge gained from studying real-life entrepreneurs is transferable to the classroom and the students.

3.3. *Reflect*

As I have previously mentioned, there is a lack of critical thinking and approach in EE. To a certain extent, EE appears as a 'taken for granted' professional domain. Reflexive and critical approaches are needed at both the levels of research and educational practice. One suggestion in developing this type of posture could be to regularly question the main research streams, theories, methods, epistemologies, assumptions and beliefs dominating the field and the educational practices of EE. It can be achieved by adopting a critical and constructive attitude towards the questions raised and the issues covered, and by breaking down the silos between thinking and acting, the world of academia and that of practice, and between disciplines looking at EE.

What we have termed the 'reflect' strategy relates to entrepreneurship scholars' capacity to use reflexivity both as researchers and educators. EE lacks qualified and experienced scholars. As previously mentioned, research on who entrepreneurship educators are and what they really do remains scarce. There is a strong need to develop the competences, knowledge and reflexivity of entrepreneurship educators. In my view, they should behave as both educators and researchers, deeply rooted in the field, because teaching/educating people in entrepreneurship requires a wide-ranging set of skills. Entrepreneurship educators need to be experts in many different areas and notably in the fields of entrepreneurship and education. They need to understand the key concepts and theories from both entrepreneurship and education. They need to incorporate in their educational practice 'softer' entrepreneurial topics such as the entrepreneurial mindset, opportunity construction, work–life balance, managing emotions and learning from failure. They also need to demonstrate the usefulness of entrepreneurship theories and to regularly update their knowledge using entrepreneurship research. The following example is a good illustration of this lack of knowledge updating, due to disconnection from other fields. In the entrepreneurship research and in EE, intention-based models and notably the theory of planned behaviour constitute useful theoretical frameworks. Yet, intention is not behaviour (Armitage and Conner 2001) and the research aimed at better understanding the role of entrepreneurial intention could address the link between intention and behaviour. To this end, I encourage researchers and educators in EE to apply the implementation intention theory (Gollwitzer 1999) to the field of entrepreneurship. An implementation intention is a self-regulatory strategy in the form of an 'if-then-plan' that can help goal attainment. Individuals who form an implementation intention, i.e. a specific plan detailing where, when and how the desired behaviour will be performed, are more inclined to act on their intentions. In the last decade, the usefulness and the effectiveness of implementation intention theory have been established by psychology scholars in many empirical studies (Ajzen, Csasch, and Flood 2009). For example, findings from the study by Orbeil, Hodgkins and Sheeran (1997) provide strong support for the view that implementation intention improves the predictive validity of the behavioural intention construct within the framework of the theory of planned behaviour.

In the same line of thought, the strength of commitment to both the goal and the plan is very important for the implementation intention to be effective (Gollwitzer 1999; Ajzen, Csasch, and Flood 2009). As stated by Ajzen, Csasch, and Flood (2009, 1356): 'implementation intentions may be effective because they create commitment to the intended behavior'. In my opinion, the concept and the theories of commitment could be

seen as the missing link between intention and behaviour (Fayolle, Basso, and Tornikoski 2011). To the best of my knowledge, the theories of commitment and/or implementation intention have been applied neither in EE research nor in educational practice.

4. Conclusion

In my view, the future of EE relates mainly to the relevance, self-consistency, usefulness, effectiveness and efficiency of entrepreneurship courses and programmes at the various levels of education and training. The 'client' of EE is the society in which it is embedded. It means that entrepreneurship learning and entrepreneurship outcomes should adequately meet the social and economic needs of all the stakeholders involved (pupils, students, families, organizations and countries).

To achieve this goal, entrepreneurship educators and researchers must strive to create a professional community sharing the same values and objectives, in order to fundamentally change the nature, the practice and the effects of EE by targeting, connecting and reflecting on the field.

Notes

1. The OECD projects included in this line of action are under the responsibility of the LEED programme (Local Economic and Employment Development) – http://www.oecd.org/cfe/leed/.
2. This is perhaps about to change as, for the first time, a special issue on "Measuring the Impact of Entrepreneurship Education" has been offered in a top-five ranked entrepreneurship journal (*Journal of Small Business Management* 51 (3), 2013).

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