Three types of learning processes in entrepreneurship education

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Abstract: As previously stated by numerous researchers, there is no consensus regarding what entrepreneurship is. As a consequence, how could there be a consensus regarding what entrepreneurship stands for as a teaching subject? In this context, the objective of this paper is to address some key issues in entrepreneurship education by focusing on different types of learning processes, highlighting particularly three main and distinct economic and social objectives: training entrepreneurs or professionals in the field (skills), preparing entrepreneurial individuals (mindset) and educating entrepreneurship professors and researchers (theories).

Keywords: entrepreneurship education; learning process; entrepreneurial mindset; experiential learning.


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1 Introduction

Learning is at the heart of education, as stated by Ramdsen (2003): “The aim of teaching is simple, it is to make student learning possible”. Different perspectives and theories have been proposed about the concept of learning, which are relevant for entrepreneurship education. For example, Kolb (1984) has defined learning as a process whereby concepts are derived from and continuously modified by experience, opening the door to the notion of experiential learning. Stating about the importance of this last notion, Deakins and Freel (1998) argued that “The entrepreneur is forced to alter behaviour through experiential learning”. Experience can generate new meaning and
leads to consequent change in thinking and behaviour. Other view on learning comes
from Bandura’s (1986) theory of social cognition. In this theory, learning is considered as
“largely an information-processing activity”. In this line, Young and Sexton (1997)
emphasised the role of memory in defining effective entrepreneurial learning as a
problem-solving process centred on “the acquisition, storage and use of entrepreneurial
knowledge in long-term memory”. Learning can be seen as a cognitive process
of acquiring and structuring knowledge, of making meaning from experience and of
generating new solutions from existing knowledge. Learning in entrepreneurship includes
both implicit and explicit knowledge and as Davidsson and Honig (2003) assert, solving
complex problems and making entrepreneurial decisions are based on a strong interaction
tacit and explicit knowledge.

Introducing this notion of learning process in entrepreneurship allows to take
explicitly into account the point of view of the learner, who is an essential stakeholder
and the main actor as stated by Blenker et al. (2006): “Learning is connected to
approaches according to which the student or learner is invited to become an active and
equal partner in the learning process”. Moreover, the notion of learning process stresses
the dynamic aspect of learning and the issues related to its implementation and execution
in a particular context. The notion of process emphasises the effects of time and context
(Kyrö and Carrier, 2005). To a certain extent each process is unique even if categories
can be defined (see below).

In this dynamic perspective, educators have to identify the conditions and the factors
that will allow them to keep a good control on each implementation of their programme.
Entrepreneurship educators have therefore to create the right conditions for a more
effective and efficient learning. Both time and context bring constraints to the learning
processes. They relate to temporal factors such as the programme duration or the way and
conditions of its inclusion in a curriculum. Other constraints come from material factors
such as the nature of equipments, the configuration and the characteristics of the
classroom(s). Finally, the constraints are related to the quality and the availability
of the resources such as the teachers, the lecturers or the financial budget.

Given those constraints, different choices made for each of the ontological
and educational dimensions, which belong to entrepreneurship teaching model
(Legendre, 1993; Béchard and Grégoire, 2005, p.107) lead to different learning
processes. Those processes can be grouped in at least three main categories:

• learning to become an enterprising individual

• learning to become an entrepreneur (or an expert in the field of entrepreneurship

• learning to become an academic (teacher or researcher in the field of
entrepreneurship).

The next sections of our paper will present and discuss each of those three learning
processes in entrepreneurship education.

2 Learning to become an enterprising individual

Such learning process is aimed at helping individuals to better position themselves as
regards entrepreneurship and to become more enterprising. It is therefore meant to
develop individuals’ entrepreneurial spirit, to make them more entrepreneurial, first in
terms of mindset, then through their actions. Education and training can influence
students’ perceptions of entrepreneurship as it enables them to better understand the roles
and actions of entrepreneurs, their values, attitudes and motivations. Entrepreneurship
education has been recognised as one of the most crucial factors in fostering
entrepreneurial attitudes (Gorman et al., 1997; Kourilsky and Walstad, 1998).
In this case, the ‘spiritual’ dimension (‘know why’ and ‘know when’) of the programme
contents is put forwards and there is a wide range of possible pedagogical methods used
to underline the determinants of entrepreneurial conduct/action and the right timing to
act. Using entrepreneurs’ testimonies can also be a key in reaching the objectives, thanks
mainly to the role models they can represent.

Numerous authors have attempted to describe this type of learning process and to
assess its impact. We can consider that the process that turns an individual who is
indifferent to entrepreneurship into an enterprising individual is characterised by two
interlinked factors: the desirability and feasibility of the entrepreneurial act. These factors
are in Shapero’s model considered as two antecedents of the entrepreneurial intention
(Shapero, 1975; Shapero and Sokol, 1982). Intention models can therefore be used both
as pedagogical guides and as evaluation tools of educative actions (Fayolle, 2005;
Fayolle et al., 2006a, 2006b). Another concept coming from the field of strategy,
entrepreneurial orientation, could also be applied at the individual level. We will discuss
those concepts and their implication for entrepreneurship education hereafter.

**Intention** is a social psychology construct. A great variety of intention models have
been developed and tested by entrepreneurship researchers (Bird, 1989; Boyd and
Vozikis, 1994; Shapero and Sokol, 1982; Davidsson, 1995; Autio et al., 1997;
Tkachev and Kolvereid, 1999). Most models integrate contributions from the theories
of planned behaviour (Ajzen, 1991), perceived self-efficacy and social learning
(Bandura, 1986). Krueger and Carsrud (1993) underline the importance of increasing the
use of intention models in the field of education. Training programmes can influence the
variables influencing the entrepreneurial intention and therefore can be designed
and evaluated according to their impact on the students’ (or other learners’) attitudes,
perceptions and intentions towards the entrepreneurial behaviour, in particular
its desirability and feasibility.

An alternative approach is to study the **self-efficacy** of the students and participants
engaged in entrepreneurship education programmes. The concept of self-efficacy
developed by Bandura (1977, 1982, 1986) and that of perceived behavioural control
(Ajzen, 1991) are two closely related notions which influence both the intention and the
behaviour. Perceived self-efficacy refers to “people’s beliefs about their capabilities to
exercise control over their own level of functioning and over events that affect their
lives” (Bandura, 1991). Perceived behavioural control refers to the perception of control
an individual has about how easily or not he or she can perform the behaviour. It calls
upon a specific behavioural context and not upon general predispositions to act.
Therefore, people may exhibit a low or a high degree of perceived behavioural control,
which can originate both from internal or from external factors. Empirical research
provides considerable evidence of the distinction between measures of self-efficacy
(ease or difficulty of performing a behaviour or, confidence in one’s ability to perform it)
and measures of controllability (belief of having control over the behaviour or beliefs
about the extent to which performing the behaviour is up to the actor) (Ajzen, 2002).
Perceived self-efficacy and perceived controllability are conceptually independent from
Three types of learning processes in entrepreneurship education

Three types of learning processes in entrepreneurship education

internal or external locus. Each one may reflect both beliefs about the presence of internal as well as external factors (Ajzen, 2002).

The concepts of intention and self-efficacy developed above show that, despite subtle differences which should not be overlooked, there are strong similarities between Ajzen’s and Bandura’s concepts. In all cases, the development of positive perceptions linked to self-efficacy or (perceived) behavioural control impacts both the increase of the intention level and the performance of the behaviour itself. The acquisition of operational skills, specific techniques and tools also strongly influence these perceptions, hence their relevance regarding education and training.

Entrepreneurship training programmes aimed at helping students becoming enterprising individual can also influence their entrepreneurial behaviour and orientation. Entrepreneurial behaviour can be described as the processes, practices and decision-making activities that lead to entrepreneurship (Lumpkin and Dess, 1996). Lumpkin and Dess think that entrepreneurial orientation defined as supporting key entrepreneurial processes includes five dimensions: autonomy, innovativeness, risk taking, proactiveness and competitive aggressiveness. Even if the concept of entrepreneurial orientation has been built up from an organisational perspective anchored in the field of strategy, it can also be applied at individual level. In this model autonomy refers to the independent action of an individual carrying an idea or a vision through completion and innovativeness is the tendency to engage in new ideas and experimentations that may result in new things. Proactiveness implies acting in anticipation of future problems, needs or changes and risk taking is accepting to make mistakes and errors with all the consequences. Finally, competitive aggressiveness is directly and intensely challenging competitors. Hence an effective entrepreneurial education aimed at helping people to become more enterprising should provide a support to develop these entrepreneurial behaviours.

3 Learning to become an entrepreneur

The second category of learning processes focuses on how to become an entrepreneur. Such programmes are mostly intended for people engaged in an entrepreneurial project and who wish to benefit from some support and training. They can also be intended for students who want to learn about entrepreneurial situations and contexts. There are numerous programmes of this kind throughout the world. They emphasise the professional/practical dimension of the programme contents (know what, know how and know who), and the core pedagogy is very often based on ‘learning by doing’.

Such learning process must take into account the contexts and situations in which entrepreneurs really operate. In real-life situations, learning is often accomplished in an emergency mode and is constrained by previous experience. The characteristics of this type of learning in the field must be fully understood and training programmes should be adapted and tailored accordingly.

The idea that in venture creation training, real-life situations and learning methods should be preferred is not new. ‘Learning by doing’ and other inputs by Gibb (1993, 1996) constitute an interesting conceptual basis in this regard. However, the type of learning in question here is real-time learning, in a real situation, which often involves high economic and personal stakes. Learning in this case is made necessary by the number of incidents, events and problems that typically occur in the first few years of
the company’s life. It happens at an individual level and concerns the key actors (the entrepreneur and members of the team), but it also happens at a collective or organisational level (de La Ville, 1996, 2001). The actors’ learning is an indispensable reaction to the new venture’s dynamic of change and is a central element of success (or failure) in start-up situations, as underlines it Bruyat:

“Considering learning as one of the key factors of success of a new venture creation is seldom taken into account by researchers. There seem to be two reasons for this. The first one relates to the ideological and paradigmatic foundations of entrepreneurship: considering that entrepreneurs need to learn challenges the assumption that acting entrepreneurially and succeeding are entirely determined by the initial conditions, hence that entrepreneurs possess, right from the start, particular characteristics. The second one relates to the fact that, most of the time, researchers study entrepreneurs who created their company several years before, and so the learning has already been done.”

(Bruyat, 1993, p.532)

In line with what Bouchikhi (1991) identified studying company management learning processes, the learning process of becoming an entrepreneur is an emergent and trial/errors process, based on bounded rationality and effectuation and influenced by the entrepreneurs’ cognitive models. We discuss each of those points hereafter.

The intention of entrepreneurs is not to learn how to manage a firm or become a manager, but to learn how to try to deal with problems as they emerge, sometimes succeeding sometimes failing. The entrepreneur’s learning therefore consists in finding increasingly quickly and appropriately, satisfactory answers to the diversity of problems he or she encounters. The learning processes of new entrepreneurs is therefore based on experimentations and trials and errors can succeed one another at a fast pace. An entrepreneur with no previous experience of the role will learn the job of manager by analysing and dealing with a number of issues, of a varied nature (human, financial, commercial, technical, legal or competition-related problems, etc.). In this context, failure is an important element of the learning process and entrepreneurs can, like organisations and individuals, learn from failure (McGrath, 1999; Shepherd, 2004) provided they are not prohibitive. In a recent paper, Shepherd (2004) is proposing ways and methods to educating entrepreneurship students about emotion and learning from failure. The diversity of the problems encountered and their recurrence will enable the entrepreneur to develop specific routines and skills, linked to his or her role as manager of a new company. In this context of chaotic emergence, undoubtedly, the entrepreneur’s capacity and rapidity to act, deal with failure and solve the numerous problems encountered are essential, even critical qualities.

Moreover, when faced with a given problem, it is simply impossible for the entrepreneur to identify all the potential solutions, analyse them and select the most appropriate. The lack of time and resources to make rational decisions in emergency situations is quite different from the traditional approaches and methods applied, for instance, in large firms or administrations, which rely mostly on procedural rationality. Sarasvathy (2001) for example proposes an interesting framework, the logic of effectuation, which is very specific to entrepreneurial ways of dealing with bounded rationality as well as thinking and acting, opposed to the logic of causation. The theory of effectuation could be a powerful means to differentiate entrepreneurial ‘action’ and managerial ‘action’ and design education programmes accordingly.
Finally, the previous experience of the entrepreneurs and the cognitive models (or ‘cognitive core’) he or she has built through them will also condition the learning process and limit its influence. Entrepreneurs who engage in a company creation process, start with a background and a cognitive core (Bouchikhi, 1991, p.59), that is to say that they have a set of mental representations shaped by their professional and personal history. This cognitive core will influence the approaches implemented to face the problems encountered during the start-up phase. By acknowledging this, we also acknowledge the limits of learning. Firstly, large discrepancies between the entrepreneur’s cognitive core and the characteristics of situations encountered may generate incompatibilities between the nature of the problems and the nature of the answers proposed. Secondly, as highlighted Bouchikhi (1991, p.61), there is a great risk that:

“entrepreneurs will cease to learn when their cognitive system has reached such a degree of closure that it becomes impossible to change the tiniest element whatever the data of the experience.”

4 Learning to become an academic in entrepreneurship

This category of learning processes is aimed at helping people to become teacher and/or researcher in the field of entrepreneurship. They also address pedagogical actions such as the training of trainers and the training of teachers. As stated by recent studies (Finkle and Deeds, 2001; Brush et al., 2003), the last 15 years have seen a tremendous rise in the number and status of entrepreneurship programmes in universities, including entrepreneurship doctoral programmes. Both the demand and the supply of entrepreneurship faculty have increased strongly in this period and the field is probably in a way to be institutionalised.

The learning processes to become an academic in entrepreneurship focus on the theoretical dimension of the contents. It implies that they emphasise useful theories and methods to study entrepreneurship and seek to help doctoral students to get a “broad understanding of the variety of research designs, sampling criteria, data collection methods and analytical techniques which might be used to address research questions about creation of new ventures, new organisations, new combinations and the like.” (Brush et al., 2003, p.319)

In these programmes, the ontological and theoretical questions are essential. One of the most important issue is to define the entrepreneurship domain and to discuss the relationship between this domain so delineated and other scientific domains or fields. To give only an illustration, Brush et al. are proposing the following definition for the domain of entrepreneurship:

“A fundamental characteristic of the field of entrepreneurship and of its research is a focus on creation (of new ventures and organisations, new combinations of goods and services, etc.). Such creation might occur at multiple levels of analysis (individuals and teams, new ventures and organisations, etc.) and in a wide variety of contexts (new ventures and organisations, existing corporations, family businesses, franchises, etc.).” (Brush et al., 2003, p.310)
About the specificities of entrepreneurship and its relationship with a quite close discipline, strategy, the same scholars argue:

“The entrepreneurship field’s focus on creation activities distinguishes it from perhaps its closest neighbour, the strategy field. For example, though new venture creation is viewed by strategy researchers as one among a number of strategic options for existing firms, entrepreneurial researchers’ primary focus is on new venture creation across a variety of contexts. Therefore, knowledge created in each field can offer insights for knowledge development in the other.” (Brush et al., 2003, p.310)

The question of designing and shaping such entrepreneurship doctoral programmes is of the first importance for the field itself and all its stakeholders because these programmes have to meet the needs of the students and contribute to develop legitimacy of entrepreneurship as a scholarly discipline.

5 Conclusion

As stated in numerous studies, entrepreneurship education is becoming more and more important everywhere in the world. In the same time research works in entrepreneurship are growing and getting increasing legitimacy within the scientific community. However, limited research address educational or pedagogical issues in the field of entrepreneurship. Only a few researchers are focusing their energy and resources on the subfield of entrepreneurship education.

This situation is problematic and detrimental to entrepreneurship both as a research object and as a teaching domain. In this paper, we attempt to identify and discuss three categories of learning processes in entrepreneurship education. The key dimensions and characteristics of those three learning processes are presented in Table 1.

<table>
<thead>
<tr>
<th>Learning process</th>
<th>Key dimensions</th>
<th>Relevant concepts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning to become an enterprising individual</td>
<td><em>Entrepreneurship as a broad concept</em></td>
<td><em>Entrepreneurial intention</em></td>
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<td></td>
<td><em>Spiritual dimension (‘know why’ and ‘know when’)</em></td>
<td><em>self-efficacy</em></td>
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<td></td>
<td><em>Entrepreneurial orientation</em></td>
<td><em>(applied at the individual level)</em></td>
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<tr>
<td>Learning to become an entrepreneur</td>
<td><em>Entrepreneurship as a broad concept</em></td>
<td><em>Learning by trying/emergence</em></td>
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<tr>
<td></td>
<td><em>Professional/practical dimension (know what, know how and know who)</em></td>
<td><em>Bounded rationality/effectuation</em></td>
</tr>
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<td></td>
<td><em>Learning by doing</em></td>
<td><em>Cognitive models</em></td>
</tr>
<tr>
<td>Learning to become an academic</td>
<td><em>Didactical educational model</em></td>
<td><em>Entrepreneurship as a research domain</em></td>
</tr>
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<td></td>
<td><em>Theoretical dimension</em></td>
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The practical implications of this research concern mainly educators, trainers and teachers in the field of entrepreneurship. They suggest to see under new lenses the implementation of entrepreneurship teaching programmes. Educators and teachers in entrepreneurship have to get knowledge about practices, pedagogical situations, specific
teaching contexts to find a good combination between the ontological and educational elements of the entrepreneurship teaching model they are using and a given context to prepare the implementation phase. To sum up, from this point of view, designing an entrepreneurship teaching programme is mainly a matter of a teaching model emergence where the educator (qualification, competences, experiences, etc.) plays a key role and implementing the programme is above all a matter of learning process where the learner and the learning context (time, space, culture, resources, infrastructures, etc.) take the greatest place.

The theoretical implications underline the importance of the ‘learning process’ concept in entrepreneurship education. Our main theoretical contribution is to propose a typology of learning processes in entrepreneurship exposing three main categories, which cover a great diversity of social needs. These learning processes aim at helping people to becoming more enterprising, entrepreneurs, experts and professional in the field, and finally researchers and teachers.

Aware of the importance and the interest for such topic, and taking into account the lack of knowledge about it, it appears that numerous questions and ways of future research can be considered. To give only a few examples of research questions: How do educators integrate more the ‘time’ variable in learning processes in entrepreneurship? To which extent educators can assess the appropriateness of a teaching model configuration to a specific context? How can learning processes in entrepreneurship be studied? Moreover, entrepreneurship researchers interested in education issues could also explore other domains, other theories, other concepts of education sciences in order to feed the entrepreneurship field and help to formulate new questions or bring new answers.

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**References**


Three types of learning processes in entrepreneurship education


Notes

1Quoting Legendre (1993), Béchard and Grégoire (2005, p.107) define a teaching model as “the representation of a certain type of setting designed to deal with a pedagogical situation in function of particular goals and objectives, which integrates a theoretical framework justifying this design and giving it an exemplary character.”

2See for instance the works on collective learning in the sector of innovative technology venture creations, by de La Ville (1996, 2001).