Revista de Economía Mundial
ISSN: 1576-0162
rem@uhu.es
Sociedad de Economía Mundial
España

Fayolle, Alain; Toutain, Olivier
Four Educational Principles to Rethink Ethically Entrepreneurship Education
Revista de Economía Mundial, núm. 35, 2013, pp. 165-176
Sociedad de Economía Mundial
Huelva, España

ISSN: 1576-0162

Four Educational Principles to Rethink Ethically Entrepreneurship Education

Cuatro principios educativos para repensar eticamentela educación empresarial

Alain Fayolle
EM Lyon Business School, France
fayolle@em-lyon.com

Olivier Toutain
Burgundy School of Management, France
olivier.toutain@escdijon.eu

Recibido: febrero de 2013, aceptado: septiembre de 2013

Resumen.[1]

Mientras numerosos agentes de educación empresarial todavía asumen que el principal objetivo de los cursos de entrepreneurship en la Universidad y en las escuelas de negocios es el de producir empresarios, nosotros defendemos en este artículo que la educación empresarial es mucho más. La educación empresarial puede ser vista como una ponderosa palanca para ayudar a los estudiantes en el aprendizaje de cómo crear nueva riqueza social y económica en un mundo complejo y dinámico, como pensar y actuar empresarialmente en un amplio espectro de situaciones y contextos, como ver el emprendimiento principalmente como un método y no como un fin en sí mismo, etc.. Por tanto, para abordar de la mejor forma posible estos objetivos, nosotros argumentamos que la educación empresarial debería ser conceptualizada y diseñada basándose en cuatro principios educacionales: aprender a comprender la interrelación de múltiples interacciones sociales, aprender a navegar en un entorno complejo y dinámico, aprender como construir y revisar permanentemente conocimientos y estrategias y aprender a convertir ideas en acciones

[1] I have written this article in the memory of my colleague and friend, Joaquin GUZMAN. He notably hosted the 2011 ESU Conference at the University of Sevilla. It was a fantastic conference combining scientific sessions with social events which helped the attendees to discover the best of Sevilla and Andalousia.

ABSTRACT.

While most entrepreneurship education stakeholders still assume the position that the main aim of entrepreneurship courses at the university and business schools levels would be to produce entrepreneurs, we advocate in this article that entrepreneurship education is much more. Entrepreneurship education can be seen as a powerful lever to help students in learning how to create new economic and social wealth in a complex and dynamic world, how to think and act entrepreneurially in a range of situations and contexts, how to see entrepreneurship mainly as a method and not as a end by itself. In order to better address these issues, we argue that entrepreneurship education should be conceptualized and designed based on four educational principles: learning to understand the interplay of multiple social interactions, learning to navigate in a complex and dynamic environment, learning how to build and permanently revise knowledge and strategies and learning how to turn ideas into action.

Key words : Entrepreneurship; Education; Pedagogy; Complexity; Strategy.

JEL Classifying : I2.21, I2.23, L2.26.

1. Introduction.

Entrepreneurship is a heterogeneous and multi-faceted phenomenon (Fayolle and Gailly, 2008), observable in its natural environment: society. Entrepreneurship results from the activities of individuals who, while pursuing a variety of goals, engage in activities that generate social and economic value and so participate to the economic development. In order to generate new value, individuals take initiatives and make choices.

For a long time, entrepreneurship was conceptualized based on individuals' personal characteristics, or cognitive and behavioural traits, which supposedly distinguished them from other non-entrepreneurial types. At the basis of the trait-based approach, this conception of entrepreneurship has generated a large body of research focused on the personality of the entrepreneur.

In the 1990s, the growing importance of entrepreneurship in education programmes signalled a significant evolution: entrepreneurship could be taught! The question "who is an entrepreneur?" progressively gave way to "how to become an entrepreneur?" as underlined by Gartner (1989). The date when Gartner's article was published is interesting because it corresponds to the year the Berlin wall fell, which also marked the end of the enduring opposition between the communist and the liberal blocs.

For some authors, like Fukuyama, this event has particular significance and raises the question of the end of history: could the advent of liberal democracy imply the "end point of mankind's ideological evolution" and the "final form of human government" and as such the "end of history" (Fukuyama, 2012)? Questioning the past inevitably leads to questioning the legitimacy of the future. In other words, if liberal democracy constitutes the final ideological form of human society, then the ideological construction of the future is no longer justified. As a consequence, researchers like Rosa (2013) argue that, for the past two decades, the present has been extended at the expense of the past, and, more especially, of the future. We live in a present that has become permanent, while accelerating indefinitely. Rosa speaks of the acceleration of acceleration itself (Rosa, 2013). According to him, this lasting present, or "*presentism*" is characterized by movement, dynamism, flexibility, and ever-faster mobility.

Entrepreneurship offers therefore a good opportunity to act on this "permanent present". This may be one of the reasons behind the current interest of political leaders for promoting entrepreneurship in schools: entrepreneurship

means action, dynamism and change. It may also mean, from a policy-maker point of view or for some stakeholders, including educators, the creation of new firms. In this view, the main outcome of entrepreneurship education would be centred on behaviour and education in entrepreneurship would be evaluated in terms of number of students becoming entrepreneurs through the new venture creation process. We strongly disagree with this conception of entrepreneurship education as we are convinced that entrepreneurship education is much more. For us, entrepreneurship education should be centred on learning and entrepreneurship skill development.

In this article we focus on the definition and the societal challenges of entrepreneurship education for the next decade. Reflecting on entrepreneurial education (what it is, and what it should be) opens new ways to consider the role of individuals in managing knowledge. In our view, four principles can be proposed to better define entrepreneurship education and to ethically educate students and participants to entrepreneurship: learning to understand the interplay of multiple social interactions, learning to navigate in a complex and dynamic environment, learning how to build and permanently revise knowledge and strategies and learning how to turn ideas into action.

Our article is structured as follows. In the first section, we develop briefly some key elements about entrepreneurship and entrepreneurship education. We, then, present and discuss our four principles in the following sections.

2. THE SOCIETAL CHALLENGE OF ENTREPRENEURSHIP EDUCATION.

Promoting entrepreneurship as a multi-level social and economic phenomenon is a good way to encourage individuals to generate added social and economic value – which benefits society at large. This explains the current interest of politicians, academics and professionals for developing entrepreneurial mindsets and behaviours. The European Commission 2003 Green Paper perfectly illustrates this trend: "Entrepreneurship is first and foremost a mindset. It covers an individual's motivation and capacity, independently or within an organisation, to identify an opportunity and to pursue it in order to produce new value or economic success." (European Commission, 2003).

Gartner's contribution (1989) marks a symbolic shift in the reflection on entrepreneurship education within educational and institutional bodies as well as among the scientific community. As far as education is concerned, a large majority of European countries have started integrating entrepreneurship in national educational strategies and/or initiatives. Half of those countries are engaged in reforming their education systems (Eurydice, 2012). As for institutions, the OECD clearly bases its definition of entrepreneurship education on individuals' self-development: "education for entrepreneurship is concerned with the inculcation of a range of skills and attributes, including the ability to think creatively, to work in teams, to manage risk and handle uncertainty." (OECD, 2010). When it comes to research, on a worldwide scale, the number

of studies published in the field of entrepreneurship education increased by 300% between 2000 and 2010 (Rizza and Varum, 2011).[2]

Entrepreneurship education occupies an important place today both in European and world education systems (Katz, 2003; Kuratko, 2005; Neck and Greene, 2011). It is often presented as a promising way to train responsible individuals capable of initiative, innovation and change in the current global context. The ideological orientation of the last few years thus translates into high expectations as regards the training of individuals, who are considered to be active agents of social change through their entrepreneurial thinking and action. Consequently, over the past decade, an increasing number of researchers have recommended the use of pedagogies based on action, self-analysis and reflexivity in entrepreneurship education (Fayolle and Verzat, 2009). The idea is for the students to acquire, through action, the entrepreneur's knowledge, aptitudes, and perceptions.

In the following sections, we suggest four major principles to conceptualize entrepreneurship education and orientate educational practices. Complementary and interdependent, these four main orientations are meant to guide entrepreneurship education in keeping with the inherent complexity of the phenomenon, by learning to understand the interplay of multiple social interactions that surround individuals and in which they participate; by learning to navigate in a complex and dynamic environment; by learning how to build and permanently revise knowledge and strategies; and finally, by learning how to turn ideas into action, which requires creativity, innovation and risk-taking.

3. Learning to understand the interplay of multiple social interactions.

As already stated, entrepreneurship is a social and economic phenomenon which occurs at the individual, organisational, institutional and societal levels. At the heart of this phenomenon is the entrepreneur, who evolves in a socioeconomic environment in order to create and develop new economic and social wealth.

The entrepreneurial individual, the project and the environment form a complex and dynamic system (Bruyat and Julien, 2001). Each decision and each action taken entails interaction with all three elements (the individual, the project and the environment). For instance, if the entrepreneurial individual decides to introduce a new product along with his/her original product offer, this will have consequences on the environment (revision of the market study and reconsideration of the stakeholders involved), of the individual – who will need to acquire new knowledge – and on the nature of the business itself. In order to act, the individual interacts constantly with multiple social agents (e.g. suppliers, clients, financers, bureaucrats) who are members of different "villages" (Garfinkel, 1967; De Luze, 1997). The social groups that compose

[2] 20% of which concerned entrepreneurship education in Europe.

these villages are composed of "several individual consciences that act and react upon one another" (Le Breton, 2004). They possess their own language, their own codes and norms. The entrepreneur is brought in contact with the inhabitants of these various villages. It is through his/her interactions with them that the individual identifies him/herself as an entrepreneur.

Learning how to identify the various stakeholders' "villages", understanding how they work and how they are interrelated (Jack et ál., 2004), and, finally, learning their language in order to communicate with them are all essential to the success of entrepreneurial activity. This is the reason why the competences necessary for teaching entrepreneurship are inherently multidisciplinary. Ethnomethodology, for instance, could provide students with tools for decrypting and understanding the mechanisms that shape stakeholders' behaviours, especially those of the stakeholders with whom they interact regularly.[3]

The ensuing changes ensued can be observed in the individual and in his/her environment: identity construction is a factor of social transformation.

4. Learning to navigate in a complex and dynamic environment.

Entrepreneurship is viewed as a highly complex (Neck and Greene, 2011), unpredictable (Kuratko, 2005) and dynamic process (Cope, 2005). Indeed the individual development of entrepreneurial knowledge is a slow and incremental process that evolves throughout the individual's lifetime (Politis, 2005).

It is now generally accepted that the very nature of entrepreneurship, given its complexity, variability and contingency, makes it a difficult topic to teach (Gibb, 2002).

Entrepreneurship is also characterised by uncertainty and ambiguity (Shepherd and Douglas, 1997). In this sense, the development of self-awareness and goal-oriented strategies in order to develop projects or to capture and exploit business opportunities are so many aspects of entrepreneurial education that make it key to navigating in complex and dynamic environments.

With this in mind, the theory of effectuation presented by Sarasvathy (2001) can be considered as a general theory of action useful for learning to navigate in complex and dynamic environments. According to Sarasvathy (2001), causation and effectuation relate to the distinct ways whereby people make decisions by focusing on selecting the means towards achieving a given goal (causation) or by imagining the possible effects of using a set of given means and choosing among them (effectuation). A decision based on causal reasoning implies that individuals resort mainly to predictive rationality and apply a predetermined method to make a planned future happen. Effectuation, on the other hand, promotes creativity and imagination (analysis of possible effects) in order to choose a strategy deemed coherent with the available

[3] Garfinkel underlines that the role of ethnomethodological studies is to "analyze everyday activities as members' methods for making those same activities visibly-rational-and-reportable-for-all-practical-purposes, i.e. 'accountable'" (Garfinkel, 1967).

resources and the identified effects generated by that set of means. Effectual reasoning focuses on the controllable aspects of human action when faced with an uncertain future. By placing contingency at the core of entrepreneurial processes, Sarasvathy challenges the simplifying notion that consists in predicting the future using bounded rationality based on a number of predetermined means and tools.

In this context, individuals must learn to use both their knowledge and the information gathered from their environment in order to complete the task they have been assigned (as employees) or the task they have set for themselves if they are starting their own business. Developing effectual reasoning can therefore be learnt. There are courses designed to provide the technical skills required to conduct effective market studies (causal reasoning) for instance. In contrast, the techniques involved in introducing a new product on the market with limited resources, or the negotiation of initial partnerships without engaging in predictive behaviour, could be taught as part of a course on effectual reasoning. In this context, contingencies both constrain and provide opportunities for possible effects, but cannot provide answers as to the outcomes of the effective decision.

Thereby, entrepreneurs' ability to cope with complexity is considered to depend on their capacity for critical thinking and the way in which they manage knowledge and the complex information coming from their environment.

5. Learning how to build and permanently revise knowledge and strategies.

Meta-cognition can be a major asset in teaching entrepreneurship (Toutain, 2010). Indeed, discovering applicable solutions to solve a given problem in an entrepreneurship class using problem situations is not enough to enable students to transform this educational experience into actionable knowledge in other disciplines or in other activities. On the other hand, helping students by suggesting tools which enable them to organize and intentionally manage information and to analyze their strategies and decision-making processes can help them build and develop their meta-cognitive entrepreneurial knowledge, thereby improving the likelihood of using them in different areas.

Additionally, introducing meta-cognition offers a new opportunity to reconsider the dominant collective approach and encourages a more individualized student support. Further work on developing meta-cognitive attitudes can help enrich the debate on the different types of teaching input by combining collective input and individual work within the same course programme.

In their article entitled "A measure of adaptive cognition for entrepreneurship research", Haynie and Shepherd (2009) propose a model describing the cognitive adaptive processes students implement when placed in entrepreneurial situations. We fully agree with their approach: in order to act entrepreneurially, individuals must be able to adapt to the new situations they encounter. This means

that they need to know how to solicit external and internal resources towards a given objective, deal with and organize information, analyze and integrate previous experience, build strategies and ultimately measure their effectiveness.

In this context, we believe that introducing meta-cognition in the entrepreneurial teaching process gives meaning to the knowledge taught. Using meta-cognition facilitates teaching by defining a programme ("What I am doing?") and pedagogical objectives ("Why am I doing it?").

Using meta-cognition in the entrepreneurial learning process is an opportunity to link active teaching methods with the general objectives of entrepreneurship training. In other words, the use of meta-cognition can be a bridge between active pedagogies and the achievement of didactic objectives centred on the individual development of skills to navigate in an entrepreneurial adventure. Using meta-cognition can therefore help would-be entrepreneurs to develop their own entrepreneurial identity through introspective processes (highlighting the passage from "outside" to "inside") and projective identification (projecting oneself into an object and attributing one's own characteristics to the object). We believe that the construction of an entrepreneurial identity, through introspection processes, projective identification and social interaction, is one of the key components of entrepreneurial education.

6. Learning how to turn ideas into action.

Experiential learning relies on the pivotal principle that the entrepreneur's stock of past experiences impacts entrepreneurial and firm-level performance. Experience-based knowledge directly influences strategic choices made by entrepreneurs in their subsequent ventures (Politis, 2005). This is important as it clearly situates experiential learning (or knowledge derived from experience) upstream of entrepreneurial action. Thus, a better understanding of experiential learning could contribute to a better understanding of how entrepreneurs develop entrepreneurial knowledge with a view to improving the performance of their business ventures. The concept of experiential learning owes a great deal to the works of Piaget (1947, 1975) who laid the foundations of experiential learning. His works show that, on the one hand, learning must be considered as a process, and, on the other hand, that the process is directly driven by the learner. During the learning process, learners' efforts to engage in critical reflection may challenge and transform irreversibly the knowledge and beliefs they held prior to the event. In other words, the experience may result in deep changes in their cognitive structures (or *schemas*). In this process, learners are instrumental in generating new knowledge, produced through their constant interaction with the environment. This active form of learning is aimed at developing situational intelligence. In their day-to-day activities, entrepreneurs try to adapt to the various situations encountered[4] by solving the problems raised

[4] Whose novel nature is directly correlated with the level of discomfort and mental destabilization felt towards the unknown.

in order to redress the cognitive imbalance caused by lack of knowledge and prior experience. This process, inspired by Piaget's theory of "re-equilibration" (Piaget, 1975), involves mental operations in which the relationship between the entrepreneur and the new firm is a dialogic relationship (Morin, 2008; Bruyat, 1993; Fayolle, 2007). This type of relationship incites the individual to turn ideas into action combining his/her knowledge and experience, while taking heed of the emotions and temperament involved in his/her mental operations and the implementation of his/her choices.

Such an approach corroborates Kolb's work, which emphasizes two essential dimensions of experiential learning: the acquisition and the transformation of experience (Kolb, 1984). In line with Kolb (1984), further research published on the subject seems to converge towards the same conclusion: an entrepreneur's stock of prior experiences (positive or negative, professional and/or personal) is positively correlated with his/her ability to turn ideas into action. In this context, experience is a slow and incremental acquisition process that develops throughout the entrepreneur's professional life (Politis, 2005). Moreover, to turn ideas into action raises questions concerning the "why" (reflective thinking) as well as the complementary "how". Combining these two aspects of learning contributes to the development of various approaches aimed at understanding the individual process of transforming experience into learning. For example, Toutain and Fayolle (2009) depict the entrepreneur as a 'tinkerer' (or *bricoleur*) coping creatively and flexibly with complex situations.

7. Conclusion.

The four educational principles we suggest for entrepreneurship education aim at encouraging students to develop their creative abilities in order to understand the complexity and rapid evolution of the environment they are engaged in. In this context, to be successful, educational initiatives require a favourable environment in order to facilitate students' learning on what acting entrepreneurially means. However, are higher education institutions provide educational contexts really adapted to entrepreneurship education? In other words, are the four principles presented in this article, which imply active pedagogies and life-like teaching situations, suited for the traditional classroom or lecture hall? It seems rather paradoxical. On the one hand, we have education facilities that rely mainly on a knowledge-transfer form of teaching, in a behaviouristic paradigm of education, and on the other hand, the pedagogical needs for students to move, exchange, experiment, listen to and observe real-life entrepreneurs, which call for a constructivist paradigm of education. "Is entrepreneurship education filling a pail or lighting a fire (behaviouristic and constructivist schools of thought in education), or both?" (Fayolle, 2013) is still an unsolved big issue in entrepreneurship education. Improving the level of quality of educational practices in entrepreneurship requires a well-thought and better-adapted educational context for the type of pedagogies envisioned.

Developing entrepreneurship education and designing well-appropriated educational contexts and settings in order to apply the four educational principles presented in this article therefore requires a good level of connection between educators, researchers, university top managers, policy makers and practitioners. Connecting all the stakeholders of entrepreneurship education is a key success factor (Fayolle, 2013). A good way to this would be they share beliefs, a vision and a unifying paradigm for entrepreneurship education (Kyrö, 2005). This would probably make entrepreneurship education not only a short-term source of hope in a "lasting present", but would also contribute to reinventing a future that has become obsolete.

REFERENCES.

Bruyat, C. (1993): "Création d'entreprise : contributions épistémologiques et modélisation", *Thèse de doctorat en sciences de gestion*, Université Pierre Mendès France, Grenoble.

Bruyat, C., Julien P.A. (2001): "Defining the field of research in entrepreneurship", *Journal of Business Venturing* 16(2), 165-180.

Cope, J. (2005) : "Toward a dynamic learning perspective of entrepreneurship", *Entrepreneurship Theory and Practice*, 29(4), 373-398.

De Luze, H. (1997): *L'ethnométhodologie*, Economica, Paris.

Eurydice (2012): "Entrepreneurship education at school in Europe. National strategies, curricula and learning outcomes". Published by *Education, Audiovisual and Culture Executive Agency* (EACEA P9 Eurydice and Policy Support), European Commission.

Fayolle, A. (2013): "Personal views on the future of entrepreneurship education". *Entrepreneurship & Regional Development*, DOI: 10.1080/08985626.2013.821318.

Fayolle, A. and Verzat, C. (2009) : "Pédagogies actives et entrepreneuriat : quelle place dans nos enseignements?", *Revue de l'Entrepreneuriat*, vol. 8, n°2, pp. 1-16.

Fayolle, A. (2007): *Entrepreneurship and new value creation. The dynamics of the entrepreneurial process*, Cambridge University Press.

Fayolle, A. and Gailly B. (2008): "From craft to science: Teaching models and learning processes in entrepreneurship education", *Journal of European Industrial Training*, 32(7), 569-593.

Fukuyama, F. (2012): *The end of history and the last man* (re-issue edition), Penguin, London.

Garfinkel, H. (1967): *Studies in ethnomethodology*, Englewood Cliffs, NJ: Prentice-Hall.

Gartner, W. B. (1989): "Who is an entrepreneur? Is a wrong question". *Entrepreneurship Theory and Practice*, 13(14), 47-68.

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*, 4(3), 233-269.

Haynie, M. and Shepherd, D. (2009). "A measure of adaptative cognition for entrepreneurship research". *Entrepreneurship Theory and Practice*, 33(3), 695-714.

Jack, S.L., Drakopoulou-Dodd S. and Anderson R. (2004): "Social structures and entrepreneurial networks: The strength of strong ties", *The International Journal of Entrepreneurship and Innovation*, 5(2), 107-120.

Katz, J.A. (2003): "The chronology and intellectual trajectory of American entrepreneurship Education', *Journal of Business Venturing* vol.18 (3): 283-300.

Kolb, D. (1984): *Experiential learning: experience as the source of experiential learning and development*, Englewood Cliffs, NJ: Prentice-Hall.

Kuratko, D. (2005): "The emergence of entrepreneurship education: Development, trends and challenges", *Entrepreneurship Theory and Practice*, 29(5), 577-597.

Kyrö, P. (2005): "Entrepreneurial Learning in a Cross-Cultural Context Challenges Previous Learning Paradigms"; in P. Kyrö, and C. Carrier (Eds), *The Dynamics of learning entrepreneurship in a cross-cultural university context*, University of Tampere, Research Centre for Vocational and Professional Education, Tampere, Finland.

Morin, E. (2008): *On complexity*, Creskill, NJ: Hampton Press.

Neck, H., and Greene, P. (2011): "Entrepreneurship Education: Known worlds and new frontiers", *Journal of Small Business Management*, 49(1), 55-70.

OECD (2010): "The OECD Innovation strategy: Getting a head start on tomorrow", OECD publishing.

Piaget, J. (1947): *The psychology of intelligence*, Armand Colin, Paris.

Piaget, J. (1975): *L'équilibration des structures cognitives, problème central du développement*, Presses Universitaires de France, Paris.

Politis, D. (2005): "The process of entrepreneurial learning: A conceptual framework", *Entrepreneurship Theory and Practice*, 29(4), 399-423.

Rizza, C. and Varum, C (2011): "Directions in entrepreneurship education in Europe", XX Meeting of the Economics of Education Association, Malaga, Spain.

Rosa, H. (2010): *Acceleration: A new theory of modernity* (New Directions in Critical Theory), Columbia University Press, New York.

Sarasvathy, S. D. (2001): "Causation and effectuation: Toward a theorical shift from economic inevitability to entrepreneurial contingency", *The Academy of Management Review*, 26(2), 243-263.

Shepherd, D.A. and Douglas, E. J. (1997): "Is management education developing, or killing, the entrepreneurial spirit?", *Paper presented at the 42nd International Council for Small Business Conference*, San Francisco, CA.

Toutain, O. and Fayolle, A. (2009) : « Le créateur d'entreprise est un bricoleur », *L'expansion Entrepreneuriat*, n° 1, p. 20-26.

Toutain, O. (2010), "Experiential learning and metacognition in entrepreneurship education", University of Lyon 3 (France).
European Commission, (2003): “Green Paper: Entrepreneurship in Europe”, http://eurlex.europa.eu/smartapi/cgi/sga_doc?smartapi!celexplus!prod!DocNumber&lg=fr&type_doc=COMfinal&an_doc=2003&nu_doc=27 (retrived February 13, 2013).