

DEVELOPING STUDENTS' ENTREPRENEURIAL MINDSET

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Abstract

Entrepreneurial activity is a major factor in fostering economic growth and the advancement of our society. Hence, entrepreneurship education may play a crucial role in helping higher education institutions pursue their global mission to educate individuals who can contribute to prosperity and act as responsible citizens ultimately. Lecturers can participate in this transformative process by disrupting the traditional approach to entrepreneurship education and incorporating a teaching model that prioritises the acquisition of learnable competences and skills. This study focuses on developing an entrepreneurial way of thinking as the main pathway to stimulate business creation intention. We explore attributes associated with the entrepreneurial mindset such as creativity, initiative, flexibility and adaptability, empathy, resilience, comfort with risk, self-sufficiency, and the ability to learn from failure, and emphasise the importance of being prepared to face a dynamic and changing world.

Keywords: Entrepreneurship education, entrepreneurial mindset, entrepreneurship curriculum.

1 INTRODUCTION

Contemporary trends in education, and specifically educational programmes, are evolving towards a more expanded entrepreneurial perception. In fact, entrepreneurship education has progressed from teaching students about how to start a new business to recognising entrepreneurial opportunities and how to create economic value and jobs. This approach looks to combine the learning of competences with that of acquiring knowledge, contributing to students' personal as well as professional development, and aims to encourage them to maintain this learning approach throughout their lives. In line with authors such as [1], this study contributes to the literature by proposing entrepreneurship education as a way of contributing to the enhancement of students' entrepreneurial skills. Higher education institutions play a central role in guiding societal development and can do so by creating a context that equips students with entrepreneurial skills [2-4].

Furthermore, with the labour market becoming increasingly globalised, it is important to recognise that the demand for professionals is orientated towards profiles that clearly display differentiating competences. These factors have an impact on the agents involved, and this constant society-university feedback process helps to ensure that training orientated towards a future profession is based on key competences that enable graduates to respond to this dynamism [5-7]. In addition, employability — or the labour market insertion rate — is becoming an indicator of the quality of a university's performance [8], to be rewarded through regulation, financing, and evaluation systems. Therefore, the relevance of university activities is undeniable in driving economic growth and promoting societal well-being.

This study offers an examination of the existing challenges that individuals with the entrepreneurial skills to identify and act on new business opportunities need to overcome. Progress has been made in developing the concept of entrepreneurial mindset by drawing on the wealth of research focused on how graduates endowed with entrepreneurship can build a better society.

2 ENTREPRENEURIAL MINDSET IN HIGHER EDUCATION

Foundational research in entrepreneurship points to the enormous potential of graduates from Higher Education Institutions (HEIs) to meet innovation and economic development needs [9,10]. Along with acknowledgement of the importance of innovation and entrepreneurship in current economies, there is an added focus on graduate mobility for entrepreneurial careers, entrepreneurial skills, and the needs of business start-ups. The role that HEIs could play in meeting these needs is beginning to attract attention.

Thus, innovation in Entrepreneurship Education (EE) research involves the development of an encompassing paradigm, using appropriate educational methods and studies in the institution's curricula

to encourage students to develop entrepreneurial skills which can support them in their chosen careers. Most university-level programmes undertake to increase entrepreneurial consciousness and to prepare aspiring entrepreneurs [11]. The recent growth in the curricula and programmes dedicated to entrepreneurship and new-venture creation has been significant [12,13] and, according to this argument, "some legitimacy has been attained in the current state of EE, (although) there are critical challenges that lie ahead" (p.1).

In this respect, for EE to embrace the 21st century, lecturers must become more competent in the use of academic technology and also expand their pedagogies to include new and innovative approaches in the teaching of entrepreneurship (12, p.591). This is an interesting perspective and certainly offers an opportunity to consider the entrepreneurship field in a different way. The entrepreneur serves as a key element in the process of innovation development and economic growth [14]. Thus, it is crucial that graduate students (as potential entrepreneurs) acquire technical and business skills within their HEIs to become successful entrepreneurs in the future.

Entrepreneurship is an economic, social and innovative phenomenon and also an academic and teaching subject. As Peter Drucker argued: "The entrepreneurial mystique? It's not magic, it's not mysterious, and it has nothing to do with the genes. It's a discipline. And, like any discipline, it can be learned" [15, p.18].

The objective of this review is to bring together recent developments and methodological contributions within this field, along with the challenges which characterise innovation and entrepreneurship in the HEI sector.

2.1 The 21st Century University Entrepreneurship Curriculum

There is no denying the importance of entrepreneurship education in universities worldwide. Yet the aspiration of releasing entrepreneurs into society is based on three assumptions that form the basis of the traditional entrepreneurship curriculum. The first is the narrow description of an entrepreneur, the second is that an entrepreneurship curriculum should mimic a business school curriculum, and the third is that the outcome of such an education is measured as new business creation. Rethinking these assumptions can facilitate much-needed changes in entrepreneurship pedagogy.

To prepare students for today's world of work, the 21st-century university entrepreneurship curricula must focus on developing the whole person; someone who learns to think and act like an entrepreneur. A return to the original meaning of an entrepreneur — as someone who takes risks and innovates — can serve as a foundation for creating curricula and programmes that teach an entrepreneurial mindset and allow students to remain competitive throughout their chosen career paths.

For a curriculum to capture aspects of business and the process and skills of entrepreneurship along with an entrepreneurial mindset, the pedagogy must be experiential.

This is accomplished through exposing the student to the experience of starting a business, perhaps several times throughout his/her university studies. Students must experience, first-hand, the frustrations of failure and of finding a way back, while doing so in a safe environment. They must be allowed to experiment, to adapt and to change direction when necessary. Infusing a practice-based pedagogy — where students can develop self-efficacy through responding to uncertainty and evaluating risks — is paramount to developing an entrepreneurial mindset [17]. This involves an apprenticeship approach in which committed lecturers, as well as mentors and peers, cross classroom concepts with practical experience.

Lecturers and mentors, while guiding students through the start-up process, should focus not just on business and operating decision issues but also on a cluster of personal attributes that contribute to an entrepreneurial outlook. Integrating coursework and experiences that address personal entrepreneurial development is a necessary component of learning entrepreneurship.

2.2 Disruptive entrepreneurship

Research supports the idea that teaching an Entrepreneurial Mindset (EM) has benefits. The results of a cross-case analysis of 22 varied entrepreneurship programmes across Europe suggest that fostering an EM contributes to the development of the whole person [18] and life-long learning. The EM has been shown to facilitate student engagement and is considered a core competency in engineering education [19]. In fact, engineers believe "soft skills" to be so important that they are embedded into the mission of the Kern Entrepreneurship Education Network, which is to create an action-oriented EM among undergraduate STEM students [20]. The EM has also been studied outside of the university setting. [21]

develops a typology for aligning instructional strategies with the EM conceptualizations and thus contributes to practice by providing a better understanding of how to achieve coherence between learning outcomes and instructional choices. In this paper, three considerations of the EM are identified: i) Mindset as cognition; ii) Mindset as a frame of mind, and iii) Mindset as capability. These considerations highlight the applicability of teaching the entrepreneurial mindset across settings and with different but positive outcomes.

2.2.1 Entrepreneurial mindset development

According to [21], a vast body of literature has focused on understanding the behavioural and cognitive attributes of entrepreneurial actors. Table 1 summarises a compendium of the most broadly accepted approaches.

Table 1. *Instructional Strategies for Entrepreneurial Mindset Development (Source: Larsen, 2022).*

Mindset as cognition	Mindset as frame of mind	Mindset as capability
Objective of EE programmes Knowledge and cognitive skills (education 'about' and 'for' entrepreneurship)	Objective of EE programmes Positive attitudes towards becoming entrepreneurial and behaving entrepreneurially (education 'through' entrepreneurship)	Objective of EE programmes Knowledge, skills and competencies relevant for an entrepreneurial career (education 'for' entrepreneurship)
What is learning? A change in knowledge structures and cognitive processes	What is learning? A change in the basic premises of thoughts, actions and feelings	What is learning? A change in an individual's ability to do something
What to learn? Entrepreneurial thinking supported by new knowledge structures	What to learn? Habits of mind and a point of view with a positive predisposition towards entrepreneurial behaviour	What to learn? Entrepreneurial knowledge, skills and competencies
How to learn? Lectures and readings Real-life case studies Problem-solving Student reflections Extrapolation	How to learn? Through reflection, experiences and discourse Student-centred Role plays, simulations, serious games, case studies, life stories	How to learn? Learning by doing Concrete experiences, reflective observation, abstract conceptualizations and active experimentation
Proposed main learning theory Problem-based learning (Barrows)	Proposed main learning theory Transformative learning (Mezirow)	Proposed main learning theory Experiential learning (Kolb)

2.2.2 Attributes associated with an Entrepreneurial Mindset

Based on the literature review of [22], Figure 1 provides an overview of how the seven attributes of an EM link together. Entrepreneurship education programmes contribute to students' entrepreneurial intentions, resulting in many benefits, such as innovation and a creativity mindset, problem-solving, development of new ventures, and so on.

Basically, all entrepreneurs must overcome small failures on the path to success. Resilience and adaptability are key traits for entrepreneurial success. Overcoming difficulties (and perceiving these as challenges) and learning from failures are essential components of the journey towards achieving innovative goals. When faced with obstacles, successful entrepreneurs embrace the challenges and view them as valuable learning experiences. They analyse their failures to identify patterns and adjust their strategies accordingly. By learning from their mistakes, they gain valuable insights that help them navigate future challenges more effectively. They understand that setbacks are not permanent roadblocks, but rather opportunities for growth and improvement. Through resilience and adaptability, entrepreneurs can bounce back from failures, armed with new knowledge and a fresh perspective. They understand that failure is not a reflection of their abilities, but rather a necessary stepping stone towards success.

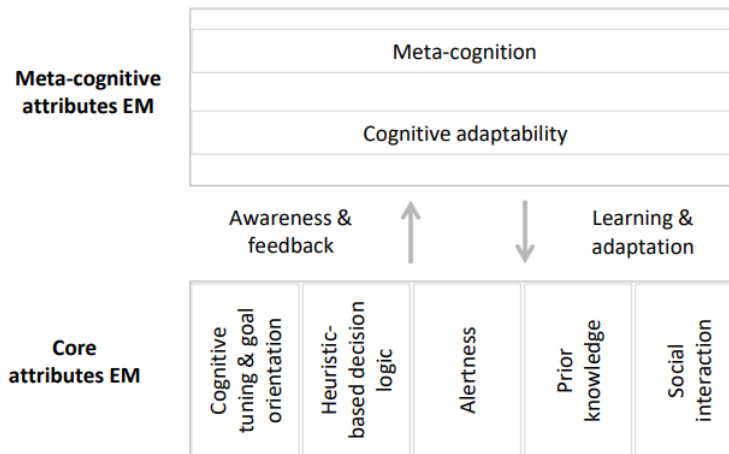


Figure 1. Linkages of EM attributes (Source: Naumann, 2017).

3 IMPLICATIONS FOR UNIVERSITY ENTREPRENEURSHIP EDUCATION

Universities pursue a global mission; to educate individuals who can contribute to society while being responsible global citizens. Entrepreneurship education could be a major contributor in helping HEIs to meet this commitment. Lecturers can participate in this transformative process by disrupting the traditional approach to university entrepreneurship education. These small changes linked to entrepreneurship will enhance resilience, self-esteem, and innovative thinking in students. [23] propose some critical questions and reflections: “What if higher education in entrepreneurship embraced and nurtured the inner entrepreneur in all of us? What if a major component of entrepreneurship education was the acquisition of resilience, initiative, confidence, and ethical decision-making, which students could take with them in new ventures, established companies or in their life decisions? What if entrepreneurship education included personal empowerment and accountability for the world’s challenges and went hand in hand with a student’s preparation for his/her career choice? Imagine how higher education could contribute to eliciting the inner entrepreneur in all of us through embracing the broader and more accurate conceptualization of “the entrepreneur” and infusing the experience throughout our programming. So, what is the appropriate outcome of an entrepreneurship education that simultaneously produces the person and educates the process? If we do not measure the success of an entrepreneurship education by the number of new ventures started by graduates, how will we define success? Teaching the entrepreneurial mindset throughout the course of the programme is tangible and measurable”.

We encourage participation by embracing a broader perspective of what it means to be an entrepreneur. By adapting entrepreneurship curricula to this perspective, the stage is set for new research questions. Studies that measure the success of entrepreneurship education will need to adapt dependent variable outcomes to include much more than whether graduates start companies. In fact, if our aim is to teach students to be entrepreneurs in their lives, then we must engage in longitudinal research that can assess the career trajectories of our graduates and their definitions of success along the way.

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