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Entrepreneurship Education within Higher Education Institutions (HEIs)

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Abstract

Entrepreneurship education has been widely recognized as influencing the establishment of new businesses. Previous literature on the subject has reviewed the evaluation of entrepreneurship education within higher education institutions. However, the results of such reviews are unsystematic. Most literature focuses on main elements of entrepreneurship education consisting of courses, teaching methods, university facilities, and methods of measurement. This chapter proposes a systematic framework for promoting effective learning in entrepreneurship education within higher education institutions as a means of developing successful entrepreneurs.

Keywords: entrepreneurship education, higher education institution, systematic framework, successful entrepreneur

1. Introduction

Entrepreneurs are more probably made rather than born. Mistakes, hard work, and a consistent attitude combined with appropriate support at the right time do not constitute a magic formula [1]. Research found that entrepreneurs will typically exhibit a belief that events result directly from an individual's own behavior, a strong internal locus of control, and an ability to recognize opportunity, along with taking calculated risks and endurance [2].

The personal characteristics of entrepreneurs contribute to their willingness to innovate, determination, and success. Individuals with a high level of self-efficacy believe that they are capable of achieving a goal. They are more likely to be optimistic, having an internal locus of control and emotional stability. Individuals with a high need for success will achieve more

by setting goals based on their experience and ability. Besides, entrepreneurs always look for new opportunities or exploit familiar ones using novel methods. They are likely to recognize those not apparent to others, and they will ignore any instruction that hinders the exploiting of such opportunities. Moreover, entrepreneurs often show a greater willingness to tolerate ambiguity. They assume that, while unable to make fully accurate predictions about the future, they can take action to make a better one [1].

There is, in reality, no singular entrepreneurship gene. Nevertheless, there are characteristics and experiences that render an individual more disposed to the path of entrepreneurship and, therefore, successful. For example, the most accomplished entrepreneurs launched their first commercial enterprise at a young age. Among a survey of 685 leading entrepreneurs, more than half started their first company between the ages of 20 and 29 [2].

Most of the entrepreneurs surveyed did not get involved in their first business directly from higher education. Rather, they described themselves as “transitioned” (58%), meaning that they had gained some experience outside the entrepreneurial world before launching their own commercial venture. Among the survey respondents, some degree of business experience was considered to have significant importance as a necessary foundation in increasing the possibility of future success [2].

Many survey informants also confirmed that corporate sector experience provides an important grounding in business practices. Informants were most likely to select “experience as an employee” as having the highest impact (33%). Higher education was prioritized by almost one-third of informants (30%), followed by mentors (26%), family (21%), cofounders (16%), secondary education (13%), colleagues (12%), C-level executive/board (11%), friends (9%), and investors (5%) [2].

Despite higher education making an important contribution to commercial venture success [2], several countries face constraints relating to both formal and informal education and training, in developing start-ups into established business [3]. Entrepreneurship education (EE) has an important mission to guide all students toward having an entrepreneurial mind-set [4]. The goal of EE within a higher education institution (HEI) is to expose students to entrepreneurial spirit and culture; in other words, to create highly intellectual entrepreneurs and new ventures that will create new job opportunities [5].

2. Is developing successful entrepreneurs through HEI study feasible?

The process of becoming a successful entrepreneur is a longitudinal process, starting in childhood. The literature highlights the following competences as instinctive and, therefore, difficult to teach:

a. Creativity and an opportunistic attitude [6]

Everybody can learn to be creative. Research studies found that, in this regard, nurture is more important than nature. A collection of studies suggests that two-thirds, or 67%, of

creativity skills are developed through learning, while only 25–40% of such competencies have been shown to be genetically determined [7]. The theory of psychosocial development posits that creativity is learned in early childhood, at approximately 2–3 years of age [8, 9].

- b. The desire and willingness to take risks, accepting calculated risk and tolerance of failure [6]. According to psychosocial development theory, risk-taking behavior is learned at the preschool stage of 3–5 years old [8, 9].
- c. Survival: this aspect is related to one's self-efficacy or high internal locus of control or perceived behavioral control [1].

These instinctual aspects can be understood by reviewing the theory of planned behavior (TPB). Proposing a model to measure the factors influencing the course of action, the theory was developed by Ajzen in 1988. It predicts the occurrence of particular behavior, provided that the latter is deliberate in nature. Individuals' intentions will influence their conduct. Intention is the antecedent meaning that individuals are prepared to demonstrate specific behavior. An individual's intention is determined by three factors: the individual's attitude toward the particular behavior, subjective norms (their beliefs about how people they care about will view the conduct in question), and perceived behavioral control. To be able to predict a particular type of behavior, we have to measure specific attitudes toward it, together with people's subjective norms. The individual's intention is more likely that of demonstrating certain behavior as well as more favorable attitudes, subjective norms, and perceived behavioral control. Perceived behavioral control (PBC) has been widely considered to be a key TPB component [10].

TPB implies that to become successful entrepreneurs, students must have a positive attitude toward this role and positive social support from their environment. Both aspects lead students to harbor both a positive opportunistic attitude and acceptance regarding risk and failure. Both positive attitudes and social supports are likely to exist to good effect if the students have high PBC. According to the literature, PBC is largely instinctive in nature [1]. While it can be taught, the learning process is protracted and impossible to complete effectively within the time limitations prevailing at educational institutions.

Alistair Shepherd, Kauffman Scholar, and the cofounder of Saber stated that "entrepreneurship can be taught to and accelerated by practitioners who are living within it" [1]. HEIs could give students valuable and systematic knowledge of all aspects of business, while equipping them with the necessary tools to prepare for all possible eventualities. The students could test ideas and concepts, besides which they could get worthwhile feedback in HEIs. In this aspect, nurture is important in developing students into accomplished entrepreneurs. Wright argued that anyone could learn the operations and techniques of how to run a business, but entrepreneurship is regarded as taking an idea and turning it into a sustainable business [6]. The key capabilities of creativity, desire, and boldness in taking risks and survival are instinctive. Therefore, some individuals will be more capable of demonstrating entrepreneurship than others. This implies that selecting potential students based on these criteria is very important in order to attain effective learning goals.

The next question is “Why do students have to learn all the activities and mechanics of running a business within an HEI context?” In order to provide an answer, one needs to refer to the age range that individuals undertaking study at HEIs fall within 19–23 years old. This represents a transitional stage between adolescence and early adulthood. Adolescents and adults are capable of using symbols that relate to abstract thinking. They can analyze multiple variables in systematic ways, formulate hypotheses, and consider abstract relationships and concepts [11]. In the light of this explanation, HEI students have the capability of solving problems and taking creative strategic decisions based on valid and reliable data. The resulting impact is likely to be that the business will operate with high accountability. Therefore, young entrepreneurs should be able to manage their commercial concern successfully in the long term (i.e., the business will be sustainable).

3. The role of HEIs in developing successful entrepreneurs

Before discussing further the role of HEIs in developing successful entrepreneurs, it is necessary to review Erik Erikson’s psychosocial development theory [9]. Applying this theory, educators are able to learn about a life span’s successive stages each of which confronts the individual with major challenges that she/he must successfully overcome in order to achieve healthy psychosocial development. From Erikson’s perspective, there comes a particular point in an individual’s life when each facet of his/her personality must have developed if it is, in fact, ever going to develop. When a particular facet does not develop on schedule, the rest of the individual’s personality development is unfavorably influenced. That individual’s capacity of dealing effectively with reality is then, in turn, compromised [9].

The theory of psychosocial development posits that college students are passing through a transition stage from adolescence to early adulthood. Adolescents need to develop a personal identity, a sense of self and during their teenage years do so in addition to exploring their independence. Adolescents who receive proper positive stimulation through personal experience will have feelings of independence, a strong sense of self and being in control. Otherwise, they will be confused about their self-identity and vision [9].

The central elements of learning at the adolescent stage include self-identity, understanding the meaning of success, critical thinking, risk taking, self-esteem, and fidelity. Young adult’s central aspects of learning comprise critical thinking, risk-taking, self-esteem, independence, focus, and commitment [9]. This theory implies that HEIs must know their students’ starting point, and that psychosocial development could inform this process. Due to the critical stage for adolescents of finding their self-identity, the university has to provide curricula and facilities that encourage students to achieve their self-identity as entrepreneurs in their first year of study. Over the following years, when students enter the stage of early adulthood, the university should then provide curricula and facilities supportive to students focusing on and committing to their passion (shape their self-identity). The university should also provide them with support in establishing their independence. The learning occurring within HEIs takes two forms: learning by observing others and experiential learning based on reflection.

Both forms are implemented by means of an entrepreneurial methodology through which the individual is active, process-based, collaborative, and multidisciplinary in the approach [12].

The major premise of social cognitive theory is that of observation-based learning. This work focuses on personality being developed through interaction between three elements, these being the environment, one's behavior, and one's own psychological processes. The theory states that modeling can have more impact than direct experience. The four conditions of behavior learning are attention, retention, reproduction, and motivation which involved in modeling. First, students have to pay attention to be capable of remembering what has been observed, to be able to translate their observation into an action, and can be motivated to do the observed example [13]. By observing others, students acquire knowledge and also learn about the usefulness of behaviors. The implications of this theory are that the university should provide good facilitators to deliver curriculum content, not only academics (lecturers) but also proprietors or managers of successful businesses (guest speakers). The facilities and delivery methods, such as an incubator, internet media, role plays, film and drama production, simulations, business plan development, internships, real-life case studies, interviews with entrepreneurs, games, project work, study visits, presentations, competitions, mentoring, among others, are intended to support successful implementation of the curriculum.

The most familiar experiential learning is that based on reflective action. This allows person as the main actor in the learning process. The learners reflect on their previous personal experience before interpreting and generalizing it to form a new learning. The learners are capable of building their own conceptualization (knowledge) through interaction with some sort of experience in their environment [14].

Kolb developed a theory seeking to clarify exactly how people learn by integrating their concrete emotional experiences will result different new learning. New learning is developed by comparing between concrete experience, reflective observation, abstract conceptualization, and subsequent active experimentation. The learning cycles are as follows: the learners live through a real life or workplace experience; the learners take some time for asking of their experience: about the nature and the meaning of experience; the learners get the lesson learned from their reflective action to make a conceptualization; and finally, the learners implement the new learning through active experience [15].

According to social learning theory and experiential learning theory, it is not sufficient for the university merely to provide such learning opportunities as observing others (guest lecturers), watching videos, role plays, simulations, study visits, interviews with entrepreneurs, internships, etc. It also has to provide real-life experience such as running an actual business in encouraging the students to be successful entrepreneurs. Since not all individuals learn from their experience [15], the institution must provide support for reflective thought such as mentoring or coaching sessions to encourage students to actively make sense of experience, link it to previous learning, and transform their existing understanding in some way. The interaction between reflective thought and the internal constructing of their own knowledge is effective when students have positive previous information regarding the expected outcomes (positive attitude, positive subjective norms, and high PBC).

4. The systematic framework of entrepreneurship education in developing successful entrepreneurs

The previous study proposed the systematic framework for entrepreneurship education (EE) within higher education institutions [16]. Their work provided the building process of its framework in a systematic way that consists of ontological, epistemological, and methodological assumptions. The systematic framework for EE can be seen in **Figure 1**.

Three important aspects for students to learn effectively are as follows: they must possess knowledge and skills that individuals apply in conducting their study, the process is focused on their recruitment and selection; they must have the supporting learning environment which provided by institutions that enable the students to undertake learning successfully

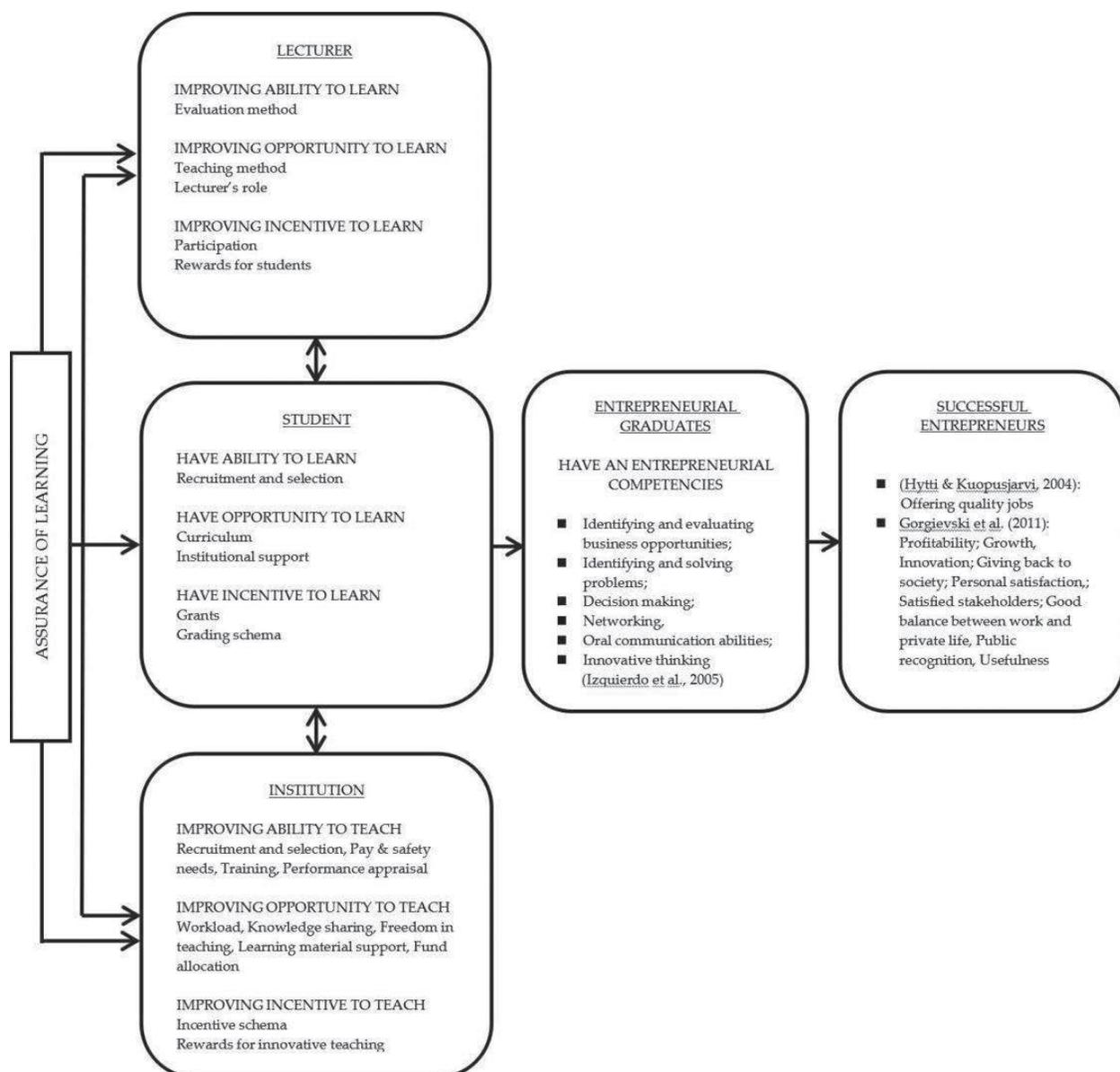


Figure 1. The systematic framework for entrepreneurship education in developing successful entrepreneurs [16].

such as curricula and facilities that are provided by institutions; and they must have something as a motivator such as grants and a grading system to conduct their study effectively.

The important aspects for lecturers are that they can improve their students' ability to learn through regular progress reviews such as learning evaluations; they can improve the opportunity of their students to learn satisfactorily, such as using the appropriate teaching method and provide mentoring if needed; and they have the capability of encouraging their students' motivation to learn such as using of reward to recognize their students' participation or performance.

There are several aspects necessary for lecturers to teach satisfactorily. The institution must improve the ability, opportunity, and incentive to teach. The institution should provide the mechanism or the process to acquire lecturers that enables to teach a particular subject or to undertake tasks successfully. This includes recruitment and selection of lecturers, pay and safety needs, professional development training, and performance evaluation. The institution should enhance the quality of lecturing capabilities to achieve learning goals. This includes appropriate workloads, knowledge sharing, pedagogical freedom, learning material support, and fund allocation. The institution also should provide positive motivation to teach satisfactorily such as the use of incentives and rewards for innovative teaching.

The output of EE within HEIs consists of entrepreneurial graduates possessing required entrepreneurial competencies such as identifying and evaluating business opportunity, identifying and solving problems, decision-making ability, networking skills, oral communication abilities, and innovative thinking [17]. Such individuals have the necessary competences to start new ventures (start-up businesses). The outcome of EE at HEI level is graduates capable of sustaining and growing a business beyond its launch to become successful entrepreneurs. The criteria for being considered as such include the ability to offer quality jobs [18], high profitability, significant business growth, unique business innovation, business contribution to society, personal satisfaction for the entrepreneur, stakeholder satisfaction with the entrepreneur, a meaningful work-life balance, strong public recognition, and product or service usefulness for consumers [19].

The contribution of previous study [16] is providing guidelines for effective learning to encourage students in becoming successful entrepreneurs, which reveals a research gap in the existing EE literature. This framework gives a better valuable insight than the previous studies [20, 21]. The framework provides clear whether key stakeholders' (students, lecturers, and institution) structured responsibility within a university relates to all important aspects of EE best practices, and it shows clear interaction among the institution's key stakeholders or the learning assurances in the implemented framework.

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References

- [1] Mitchell L. Nature or Nurture: Are Entrepreneurs Born or Made? [Internet]. 2014. Available from: <http://www.businesszone.co.uk/nature-or-nurture-are-entrepreneurs-born-or-made> [Accessed: September 3, 2015]
- [2] Ernst & Young. Nature or Nurture? Decoding the DNA of the Entrepreneur [Internet]. 2011. Available from: http://www.entrepreneurship.org/~media/Entrepreneurship/Files/Resource%20Center/Nature_or_nurture_Exec_summary_FINAL.pdf [Accessed: September 3, 2015]
- [3] Global Entrepreneurship Monitor. Country Profile [Internet]. 2013–2014. Available from: <http://www.gemconsortium.org/country-profiles> [Accessed: August 17, 2015]
- [4] Hegarty C. It's not an exact science: Teaching entrepreneurship in Northern Ireland. *Journal of Education + Training*. 2006;**48**(5):321–322. Available from: <http://dx.doi.org/10.1108/00400910610677036>
- [5] U.S. Department of Commerce. The innovative and entrepreneurial university: Higher education, innovation and entrepreneurship in focus. Office of Innovation and Entrepreneurship, Economic Development Administration; 2013. pp. 18–20. Available from: http://www.eda.gov/pdf/The_Innovative_and_Entrepreneurial_University_Report.pdf [Accessed: August 17, 2015]
- [6] Wright M. Entrepreneurs: Nature or Nurture? [Internet]. 2013. Available from: <http://www.telegraph.co.uk/finance/businessclub/10462559/Entrepreneurs-nature-or-nurture.html> [Accessed: September 3, 2015]
- [7] Matthews CH, Brueggemann R. *Innovation and Entrepreneurship: A Competency Framework*. New York: Taylor & Francis; 2015
- [8] Boeree CG. Personality Theories. Psychology Department Shippensburg University [Internet]. 2006. Available from: http://www.socialpsychology.de/do/pt_erikson.pdf [Accessed: September 9, 2015]
- [9] Fleming JS. Erikson's Psychosocial Developmental Stages [Internet]. 2004. Available from: <http://swppr.org/textbook/ch%209%20erikson.pdf> [Accessed: September 9, 2015]
- [10] Ajzen I. The theory of planned behavior. *Organizational Behavior and Human Decision Processes*. 1991;**50**(2):179–211
- [11] Wood KC, Smith H, Grossniklaus D. Piaget's stages of cognitive development. In: Orey M, editor. *Emerging Perspectives on Learning, Teaching, and Technology* [Internet]. Department of Educational Psychology and Instructional Technology, University of Georgia, Athens, GA. 2001. Available from: <http://www.saylor.org/site/wpcontent/uploads/2011/07/psych406-5.3.2.pdf> [Accessed: September.10, 2015]
- [12] Lackeus M, Lundqvist M, Williams Middleton K. How can entrepreneurship bridge between traditional and progressive education? ECSB Entrepreneurship Education Conference, Aarhus, Denmark; 2013.

- [13] Bandura A. Social cognitive theory. In: R. Vasta editor. *Annals of Child Development*. Vol. 6. *Six Theories of Child Development*. Greenwich, CT: JAI Press; 1989. pp. 1–60
- [14] Fenwick TJ. *Experiential Learning: A Theoretical Critique from Five Perspectives*. ERIC Clearinghouse on Adult, Career, and Vocational Education, Columbus, OH. 2001. Available from <http://files.eric.ed.gov/fulltext/ED454418.pdf> [Accessed: January 29, 2015]
- [15] Kolb D A. *Experiential Learning: Experience as the Source of Learning and Development*. 2nd ed. New Jersey: Pearson Education, Inc.; 2015
- [16] Ghina A, Simatupang TM, Gustomo A. Building a systematic framework for entrepreneurship education. *Journal of Entrepreneurship Education*. 2015;**18**(2):73–98
- [17] Izquierdo E, Deschoolmeester D, Salazar D. The importance of competencies for entrepreneurship: A view from entrepreneurs and scholars' perspective. *IntEnt Conference in Reino Unido*; 2005
- [18] Hytti U, Kuopusjarvi P. Evaluating and measuring entrepreneurship and enterprise education: Methods, tools, and practices. Technical Report, Small Business Institute, Business Research and Development Centre, Turku School of economics and Business Administration; 2004
- [19] Gorgievski MJ, Ascalon ME, Stephan U. Small business owners' success criteria, a values approach to personal differences. *Journal of Small Business Management*. 2011; **49**:207–232
- [20] Piper DW. *Quality Management in University*. Vol. 1. Canberra: Australian Government Publishing Service; 1993
- [21] Herrmann K, Hannon P, Cox J, Ternouth P, Crowley T. Developing entrepreneurial graduates: Putting entrepreneurship at the centre of higher education. National Endowment for Science, Technology and the Arts (NESTA). The National Council for Graduate Entrepreneurship (NCGE) The Council for Industry and Higher Education (CIHE) London, UK; 2008. pp. 1–40

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