

Management of Education for Entrepreneurship: Conceptual Foundation for Practice & Research

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In education for entrepreneurship (EE), a variety of approaches and pedagogical methods are applied. The choice of pedagogy / approach depends on the purpose, subject matter and contextual constraints imposed by the contingencies of the specific institution / education for entrepreneurial education (EPE) / target audience/ culture/ variety of situational characteristics. Entrepreneurship is a cross-disciplinary phenomenon and therefore intellectual resources should be drawn from divergent academic fields. The focus of EPE should be on imparting an inter-disciplinary integrated knowledge, skills, behaviors and strategies and EPE should be run by various academic faculties. The focus on experiential learning and action-oriented educational practices is necessary to foster entrepreneurial thinking and behavior.

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Introduction

Education for entrepreneurship (EE) enhances the entrepreneurial potential of individuals as it is a source of entrepreneurial intentions and venture effectiveness. The results of meta-analysis carried out by (Schlaegel et al., 2015:23) suggest that while educational support has a positive effect on entrepreneurial intent, lack of knowledge, experience, and training has a negative effect on entrepreneurial intent. Environment provides values, societal norms, and guiding principles as regards the desirable behaviors that guide one's entrepreneurial behaviors. Entrepreneurship education is a prime source of all such scripts through which prospective entrepreneurs can be guided appropriately for their entrepreneurial pursuits. Education for entrepreneurship is recognized as a significant phenomenon for entrepreneurial intentions and entrepreneurial success. Prior research (e.g., Kolvereid & Moen, 1997; Tkachev & Kolvereid,

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1999; Varela & Jimenez, 2001; Fayolle, et al., 2005) indicates that there exists a positive association between one's entrepreneurial learning and entrepreneurial potentiality. The outcomes of the research study of Elmuti, Khoury & Omran (2012) reveals that there exists a linkage between entrepreneurial training and ventures' effectiveness. An Indian study by Nair & Pandey (2006) also revealed that entrepreneurship is favorably influenced by technical training in a related field. Earlier research (e.g., Zhao, Seibert & Hills, 2005; Schroder & Rodermund, 2006; Souitaris, Zerbinati, & Al-Laham, 2007) indicates that participation in academic programs positively influences the entrepreneurial potential of individuals. In the GEM report 2008, it was reported that "the relationship between training in starting a business and entrepreneurial attitudes, aspirations, and activity is generally positive, but complex.....The yield from training, or the ratio of activity among the trained to that among the non-trained, varies from country to country, but on average the yield from compulsory training is slightly more than half that of voluntary training" (Bosma, Acs, Autio, Coduras & Levie, 2009: 48).

There is an increasing recognition in the past research studies that education for entrepreneurship (EE) enhances the entrepreneurial potential of individuals as it is a source of entrepreneurial inten-

tions, new venture creation and venture effectiveness. The growth and expansion of entrepreneurial education and training programs in the last two-three decades have been remarkable (Kuratko, 2005; Green & Rice, 2007; Cone, 2008; Katz, 2008; Neck & Greene, 2011). As such entrepreneurship education has acquired legitimization and respectability. Reviews of extant research (e.g., Goduscheit, 2011; Pittaway & Cope, 2007) have indicated that the issue of 'relationship between education for entrepreneurship and entrepreneurial intentions / new ventures start-ups' is less explored. In order to encourage and facilitate research in such an area, a qualitative review of prior research has been presented here which provides a solid conceptual base for further research in the field of EE. The six interlinked issues are still debatable: by whom (organizing disciplines / institutions), for whom (background of the students to be targeted), why (purposes), what (subject matter), how (teaching/training methods), for which outcomes (evaluation results) should attract the attention of the academicians. This article covers all these issues and, based on qualitative review of prior research, it is intended to show an actual picture of what is happening and what should have happened in the matter of five aspects of education for entrepreneurship. About 90 relevant research articles published in various research journals and some research reports / dissertations and conference proceedings have been reviewed for the purpose. This article is primarily the result of the in-depth study and review of about 50 journal articles.

Why to Teach?

Education for entrepreneurship (EE) deals with transmitting useful knowledge to individuals and helping them to develop entrepreneurial skills, aptitudes, attitudes and wisdom so that they may better manage the development of their own businesses and overcome difficulties during the preparation, start-up, development, and managing their businesses. In prior research (e.g., Hills, 1988; Bechard & Toulouse, 1998), six main objectives of EE were found to have been listed: (i) to increase awareness of entrepreneurship, how it is fruitful and how it is carried out; (ii) to develop one's intention to opt for setting-up one's own venture; (iii) to encourage individuals to have a positive inclination toward setting up of their own ventures; (iv) to develop knowhow of the process of setting-up and managing a new venture; (v) to inculcate entrepreneurial competencies / capacities (knowledge, skills, attitudes etc.) and entrepreneurial mindsets in the personalities of prospective entrepreneurs and to sharpen the entrepreneurial competencies in the personalities of existing entrepreneurs; and (vi) to provide training to existing entrepreneurs and focus on various business strategies needed for ensuring further growth and development of existing business.

“Entrepreneurship education is more than preparation on how to run a business; it is about how to develop the entrepreneurial attitudes, skills and knowledge which in short, should enable a student to turn ideas into action” (European Commission, 2013: 5). Entrepreneurship

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education develops entrepreneurial intentions among learners to become self-employed as well as to start-up new ventures having business growth. However, “a more desirable outcome should be the transformation of students into successful entrepreneurs that embody key entrepreneurial competencies..... creating successful entrepreneurs requires a shift from studying intentions and business formation alone to actually studying successful business development and growth as desired outcomes of education” (Morris et al., 2013: 362-63). “Institutional characteristics such as the economic environment, the degree to which it has an entrepreneurial culture, whether it is private or public, or whether it emphasizes teaching or research may generate different program objectives and measures of evaluation” (Duval-Couetil, 2013: 402). The ultimate objective of EE is to provide the increasing number of learners the opportunity to ascertain whether or not being an entrepreneur is the right employment option for them.

What to Teach?

“To generate and nurture one's intention to work as an entrepreneur” is one of the prime goals of education for entrepreneurship. In order to achieve this goal, entrepreneurship education pro-

grams should include topics / themes which can be grouped under four ingredients, viz., the kind of the courses / subject matter to be offered for the students, planning for the entrepreneurial start-ups, opportunity to be provided to the students for networking and interaction with the practicing entrepreneurs or intra-entrepreneurs, and funding for on-the job-training and research projects to be taken up by the students. All these four components are related to both theoretical knowledge and pragmatic knowledge. Theoretical knowledge includes the understanding of the process and effects of the phenomenon of entrepreneurship. It also includes what determines entrepreneurs' attitudes, values, motivation and actions. Pragmatic knowledge relates to "(a) know-what: what one has to do in order to decide and act in any given situation; (b) know-how: how to deal with any given situation; and (c) know-who: who are the useful people and which are the useful networks in a given context" (Fayolle, 2008: 328).

Education for entrepreneurship is about developing and nurturing entrepreneurial competencies among students that are generally possessed by the successful entrepreneurs. Previous researchers (e.g., Krueger et al., 2000; Lee et al., 2011) observe that entrepreneurial intention is the existence of antecedents that may lead to practice of entrepreneurship and Autio et al. (2001) have recognized it as a powerful predictor of entrepreneurship. Zhao et al. (2005), Wilson et al. (2007) indicate that entrepreneurship education is positively associated with entrepreneurial self-efficacy, which may

enhance the level intentions of potential entrepreneurs. Chen's (2010) study revealed that entrepreneurial self-efficacy mediates the relationship between entrepreneurship education and entrepreneurial intention of the learners. Martin, McNally and Kay (2013:211) found "a significant relationship between EET (entrepreneurship education and training) and entrepreneurship related human capital assets.... and entrepreneurship outcomes; and the relationship between EET and entrepreneurship outcomes was found stronger for academic-focused EET interventions than for training-focused EET interventions"

Jain, Jain & Jain (2015), in their theoretical framework of enablers of entrepreneurial intentions, suggest that the three motives (viz., need for independence, need for achievement, and desire for monetary rewards or financial wealth) and the four competencies (viz., innovativeness, self-efficacy beliefs, risk-taking propensity and pro-activeness of prospective entrepreneurs) act as enablers of the entrepreneurial intentions. In the matter of EPE Rae (2003) suggests to give emphasis on 'opportunity recognition' whereas Fletcher and Watson (2007) propose to focus on 'technique of negotiated narratives'. In view of such a framework, education programs for entrepreneurship (EPE) should be designed in such a way as to aim at developing such motives, attitudes and self-efficacy beliefs. "EPE should facilitate the participants to know how to control the key elements of a business (financing, marketing, organization, team building, and legal aspects) and they

should gain their initial practical experience in an entrepreneurial setting” (Muller, 2008:164). “It is not uncommon to teach aspects of strategy, finance, law, human resources, leadership, marketing, accounting, operations, and ethics in any given class (Neck & Greene, 2011:56). Fiet (2001) made a review of entrepreneurship courses offered by various institutions and he revealed 116 topics covered under entrepreneurship courses offered. He found overlapping of only one-third of such topics. EPE of various institutions have tended to cover general functions of business management. Such kind of course contents, if included in EPE, strengthens the self-efficacy of the prospective entrepreneurs. However, “entrepreneurship courses that focus heavily on teaching business basics may be underemphasizing the development of critical capabilities in such areas as opportunity identification, risk mitigation, or resource leveraging” (Morris et al., 2013: 353).

Recently, Morris et al. (2013:358) using Delphi methodology identified 13 entrepreneurial competencies which include opportunity recognition, opportunity assessment, resource leveraging, developing business models, resilience, self-efficacy, tenacity / perseverance, creative problem solving / imaginativeness, adaptability, conveying a compelling vision, guerrilla skills / unconventional tactics, value creation capabilities, and networking skills / social interaction skills. It may be expected that the development of such competencies certainly helps in transforming EPE participants into successful entrepreneurs. Prior research (e.g.,

Weaver et al., 2006; Van der Sluis et al., 2008) indicates that faculty members engaged in EPE cover a variety of topics under the same umbrella of EPE. “Data from some European countries show that the majority of entrepreneurship courses are offered in business and economic studies” (European Commission, 2008:15). The empirical study of Venesaar, Ling and Voolaid (2011:385) showed that “the training course has had a varying impact to the domains of students’ meta-cognitive awareness and therefore, the inclusion of meta-cognitive elements into the education and training programs would be desirable”. Similarly, Mitchell et al. (2005:2) suggest that “meta-cognitive thinking undertaken in an entrepreneurial context will lead to creation of entrepreneurial expertise by facilitating the self-reflection, understanding and control of one’s own entrepreneurial cognitions....students exposed to a meta-cognitive treatment gain entrepreneurial expertise faster than those who are not”.

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Many education programs for entrepreneurship (EPE) are conceived as a reorganized curriculum of management / business education that focus on developing knowledge & skills of different areas of management functions which is only partly suitable for the development of entrepreneurial competencies. However, tacit knowledge and work experi-

ence are very significant for venture performance and communication to all concerned. In simple words, curriculum of an EE program should be carefully planned and it should be unique unlike that of a typical management / business program. Entrepreneurs have to be multi-talented persons in order to be sustainably successful in their entrepreneur pursuits. Both development of entrepreneurial skills and development of entrepreneurial attitudes should be focused in EPE.

By Whom? For Whom?

Entrepreneurship is a cross-disciplinary phenomenon and intellectual resources should be drawn from divergent academic fields. An inter-disciplinary integrated knowledge should be applied in managing an enterprise. We, therefore, suggest that education programs for entrepreneurship (EPE) may be run by various academic faculties such as business studies, business management, economics, social and behavioral sciences, agriculture, engineering / technology, liberal arts, humanities, and liberal science etc. EPE should be made available throughout a broad spectrum of academic fields. It will be better if EPE is conducted in collaboration with divergent academic faculties and it can be aligned with general education of the universities / colleges. This strategy is more appropriate to promote entrepreneurship among trainees / learners with a variety of educational, family, social and cultural backgrounds; occupational interests and aptitudes; and work-life / social-life perspectives. However, the variety of learners in EPE makes planning and implementation of entrepreneurship education pro-

grams more complex. "Curricular flexibility in defining courses that can be included under the general education tent would place more attention on meeting students' interest in entrepreneurship knowledge and skills" (D'Intino et al., 2010:676). Academicians engaged in education for entrepreneurship are expected to remain pragmatic rather than dogmatic in their approach particularly while designing EPE. Course designers and academicians concerned with EPE are expected to understand the variety of target audience and their profile, socio-economic and socio-psychological characteristics, expectations from the kind of EPE etc. "Innovative and viable business ideas are more likely to arise from technical, scientific and creative studies.....therefore, the real challenge is to build inter-disciplinary approaches, making entrepreneurship education accessible to all students, creating teams for the development and exploitation of business ideas, mixing students from economic and business studies with students from other faculties and with different backgrounds" (European Commission, 2008: 23-24).

How to Teach?

In the matter of education for entrepreneurship, a variety of pedagogic methods [such as lecture method, case study method (group discussion on real life cases / virtual cases), business plan writing, writing an entrepreneurial story, simulation exercises, group discussion on biographies of successful entrepreneurs, panel discussion of successful entrepreneurs in class room or broadcasting of the same through some interactive electronic

media, organizing lectures / interviews of successful entrepreneurs and their discussion with the EPE participants, opportunity to work in successful entrepreneurial firms for short duration, project assignment concerning new venture creation or new value creation, short-duration project work under the guidance of successful entrepreneurs, practical training in entrepreneurial firm etc.] are applied. Solomon's (2007:168) "survey of the current state of entrepreneurship education in the USA shows that entrepreneurship educators are increasingly using guest speakers and class discussions more frequently than the traditional approach of class lectures" . However, there appears to be 'no best suited pedagogical recipe or approach for all situations'. Some faculty members apply only one approach, whereas others rely on more than one approach. The choice of pedagogy / approach depends on the purposes, subject matter and contextual constraints imposed by the contingencies of the specific institution / specific EPE / specific target audience, specific culture, and a variety of situational characteristics. For example, the process of entrepreneurship may be appropriately taught by using case study method or through the exercise of business plan writing. Muller (2008) suggests that entrepreneurial thinking may be well developed through action-oriented training practices. Sexton and Bowman (1987) found that students responded positively to learning

by doing, assignments without any guidance, readings with no specific assignments, and research projects for products that had not yet been introduced to the market place. Entrepreneurial competencies may be acquired and further developed through hands-on experiences. In fact, "there seems to be a gap between the methods actually used and those that are viewed as the most effective and appropriate" (European Commission, 2008:28). Dynamics of entrepreneurship across the cultures are fast changing and therefore no specific set of pedagogical methods / approaches for EPE is appropriate in all situations. Fresh and newer set of pedagogical methods / approaches are needed to apply in different situations and cultures and also for education of different topics so as to enable prospective entrepreneurs to have the benefit of deep learning of various entrepreneurial competencies.

In the extant literature it is broadly agreed that aspects of meta-cognition and self-regulation have significant impact on educational and entrepreneurial outcomes (Bryant, 2006; Kickul & Krueger, 2005). Venesaar, Ling and Voolaid (2011:378) states that "individuals who understand the thinking patterns related to entrepreneurship - and desire to become entrepreneurs - can alter their own thinking patterns accordingly". The findings of the study of Haynie & Shepherd (2008) suggest that meta-cognition promotes cognitive adaptability and thus improve performance on an entrepreneurial endeavor. Venesaar, Ling & Voolaid (2011) developed a meta-cognitive approach in the matter of educational program for entrepreneurship

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(EPE) according to which EPE should make changes in meta-cognitive awareness of the EPE participants and the assessment of EPE results should be through examining the changes in meta-cognitive awareness of participants. EPE should transform students into active learners and the focus should lie on 'how to learn further' while approaching the EPE participants. "Learning entrepreneurship through having real life taste by the way of working with successful entrepreneurs in one way or the other" has been recognized as the most powerful instrument of EPE but it is not being focused in practice. Similarly, non-credit course or part time course or part-time real life training may be more attractive for all those who are interested in entrepreneurship; however the same is rarely visible.

Evaluation of EPE

The evaluation of education programs for entrepreneurship (EPE) is a valuable starting point for improving design of EPE and effective implementation of the same. Prior research (e.g., Pringle & Michel, 2007) indicates that evaluation of EPE produces positive results including improvement in objectives of EPE, curriculum, teaching methods and course characteristics. EPE assessment legitimizes EPE by demonstrating such outcomes to the various stakeholders of the EPE. European Commission (2013:5) suggests that "To give entrepreneurship education real traction, there is a need to develop learning outcomes related to entrepreneurship and related assessment methods and quality assurance procedures for all levels of education".

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"Impact can be interpreted as a change in miscellaneous aspects related to entrepreneurship such as the EE (entrepreneurship education) participant's intention, desire, conviction, willingness, perception, attitude, risk assessment, feasibility, confidence, skills, ability, and knowledge as variables of the pedagogical effect" (Lautenschlager & Haase, 2011: 152).

Prior research indicates toward a positive influence of EPE on entrepreneurial intentions. Venesaar, Ling & Voolaid (2011) evaluated the results of the two entrepreneurship training courses run by the two universities through before-training and after-training assessment of the changes in meta-cognitive awareness of participants. The study found a small rise in average assessments in the domains of knowledge and monitoring, although experience-related issues had significant importance as well and such changes confirmed that after the entrepreneurship course the respondents' awareness, reflection, strategic thinking, planning, self-analysis and control have on average increased to some extent. However, "due to the multifaceted effects that EE (entrepreneurship education) could cause, no study has yet measured the overall usefulness and effectiveness, towards individuals and society, of educating individuals to become entrepre-

neurs” (Lautenschlager & Haase, 2011:153). Evaluation of EPE generally emphasizes on the short-term impact whereas assessment of EPE impact on the long-term outcomes is usually ignored.

Implications

Prior research including meta-analyses indicates that ‘education for entrepreneurship’ (EE) builds positive perception and attitude for entrepreneurship among the EE participants and in this sense EE is positively correlated with promotion of entrepreneurship. Forego-

ing review of literature indicates that there exists variation in entrepreneurship education programs (EEP) as regards to goals, contents and pedagogy across the countries, cultures and institutions. Integration of such review results as regards EE has been consolidated / summarized in Exhibit 1. A conceptual framework of management of education for entrepreneurship is given in Fig. 1.

The three varieties of entrepreneurial education programs (EEPs), viz., education for entrepreneurial awareness (EEA), education for new venture cre-

Fig. 1 Conceptual Framework of Management of Education for Entrepreneurship

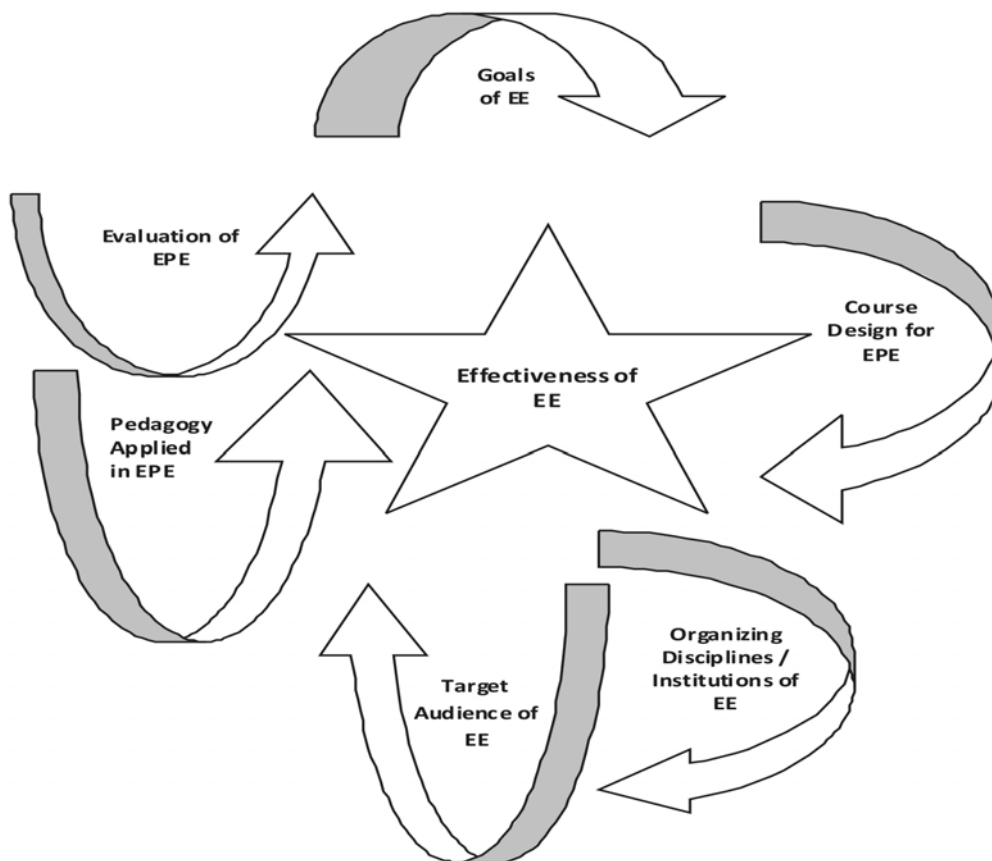


Exhibit 1 Management of Education for Entrepreneurship

Significance of Education for Entrepreneurship (EE)

EE enhances the entrepreneurial potential of individuals as it is a source of entrepreneurial intentions, new venture creation and venture effectiveness.

Goals of Education for Entrepreneurship (EE)

EE goals are: creating and increasing awareness of entrepreneurship, developing intention to become entrepreneur, encouraging to startup a new venture, to inculcate entrepreneurial competencies, to develop know how for managing a new venture, and to train the existing entrepreneurs for effectively managing their business.

Course Design for Education Programs for Entrepreneurship (EPE)

EPE should be designed in such a way as to aim at developing entrepreneurial motives like need of independence, need for achievement, and desire for monetary rewards or financial wealth; entrepreneurial competencies like innovativeness, self-efficacy beliefs, risk-taking propensity & risk mitigation capability, pro-activeness, and capability of opportunity recognition; and key elements of business management functions such as marketing, accounting & finance with focus on resource leveraging, operation management, leadership, team building & team working and other aspects relating to human resource management and organizational behaviour, strategic management, and legal aspects of business.

Organizing Disciplines / Institutions of Education Programs for Entrepreneurship (EPE)

EPE may be run by various academic faculties such as business studies, business management, economics, social & behavioural sciences, agriculture, engineering / technology, liberal arts, humanities, and liberal science etc. It will be better if EPE are conducted in collaboration with divergent academic faculties.

Target Audience of Entrepreneurial Education

EPE should be made available to the students belonging to a broad spectrum of academic fields and to the students of variety of social /cultural backgrounds; occupational interests; and work-life / social-life perspectives.

Pedagogy Applied in Education Programs for Entrepreneurship (EPE)

In the matter of EPE, a variety of pedagogic methods in some kind of combination [such as lecture method, case study method (group discussion on real life cases / virtual cases), business plan writing, writing an entrepreneurial story, simulation exercises, group discussion on biographies of successful entrepreneurs, panel discussion of successful entrepreneurs in class room or broadcasting of the same through some interactive electronic media, organizing lectures / interviews of successful entrepreneurs and their discussion with the EPE participants, opportunity to work in successful entrepreneurial firm for short duration, project assignment concerning new venture creation or new value creation, short-duration project work under the guidance of successful entrepreneurs, practical training in entrepreneurial firm etc.] should be applied. However, there appears to be 'no best suited pedagogical recipe or approach for all situations'.

Evaluation of Education Programs for Entrepreneurship (EPE)

Both design of the EPE and effective implementation of the EPE should be evaluated. Impact of EPE on both short-term and long-term outcomes in the matter of entrepreneurial intention, entrepreneurial start ups and venture success should be measured.

ation (ENVC), and on-going education for existing entrepreneurs (OEEE) are visible in the academic arena. Most of the EEPs are intended to focus on incremental generation of entrepreneurial awareness and to motivate the EE participants for choosing an entrepreneurial career. Such an observation suggests that the other two varieties of EEPs (viz., ENVC & OEEE) need to be focused in future. Entrepreneurial education can no longer to be confined to traditional EEA. Students / trainees of EEPs should be taught how to create new ventures of their own, how to market their business ideas, how to make business plans and how to execute business plans successfully. Success derives from how the students start to think entrepreneurially.

Generally, the three groups of students with different learning goals are enrolled for participation in education programs for entrepreneurship (EPE), viz., (i) students without having entrepreneurial intentions and specific knowledge in entrepreneurship who aims at being aware of entrepreneurial knowledge, skills, and strategies and also at understanding their own entrepreneurial potential; (ii) students who already assessed their entrepreneurial potential and decided to act as entrepreneurs as their career option; and (iii) students who are having some entrepreneurial experience and who need to strengthen their entrepreneurial competencies. These three different groups have different learning needs and therefore each of them should be provided EPEs with different course contents and different set of pedagogical tools while dealing with each of them.

While addressing the concerns of these three groups which specific education and training strategies will better work? This is an issue which needs immediate attention of the future researchers.

Lastly, academic institutions should inculcate entrepreneurial culture within their systems / sub-systems in order to increase the chances of success of their endeavors concerning 'education for entrepreneurship'. Entrepreneurship education (EE) is growing globally especially in higher education segment. However, it has not realized its full potential until now. There is the need to design and launch sector-specific EE programs (e.g., EE for IT sector, EE for tourism sector, EE for environment management sector etc.) to the much needed huge potential of EE across the sectors and across the cultures and countries.

Direction for Research

Previous studies, by and large, did not produce empirical evidence suggesting that EE positively influences entrepreneurial behavior in practice. Hence longitudinal studies need to be carried out to measure the impact of EE on actual entrepreneurial behavior being demonstrated in practice in different forms of entrepreneurship such as new venture creation, start up of an enterprise, entrepreneurship in family owned business, corporate entrepreneurship, social entrepreneurship etc. Extant research in the area of EE emphasized on planning for EE program and implementation whereas research studies regarding evaluation of the EE programs appear to be a major

gap in the matter of EE research. The desired impact of EPE (education program for entrepreneurship) is expected in the form of development in entrepreneurial intentions and actual creation of new venture. Therefore, measuring such an impact should be the thrust area of future research in the matter of evaluation of EPE. Longitudinal studies should be carried out to get better results as it takes a long time for a prospective entrepreneur to create a new venture. What exactly should be the mix of pedagogy for different groups? Such issues remain unattended so far in earlier research and hence they are required to be attended by the future investigators. What exactly should be the contents of EPEs designed for different groups? The future researchers are expected to focus on this issue.

In prior research, several basic questions concerning entrepreneurship education (EE) remain unanswered. A few of such questions are presented here: (i) To what extent EE enables the participants to become effective entrepreneurs? (ii) What scheme can be used to develop typology of educational practices? (iii) Which pedagogic approaches have proven to be appropriate in the specific situations? (iv) Which course designs are more appropriate than others for the purpose of fostering entrepreneurship? (v) Are the thinking ways of entrepreneurs' different from those of non-entrepreneurs? How do entrepreneurs function cognitively and make strategic choices? How individuals really learn entrepreneurship? Can entrepreneurship education foster entrepreneurial thinking patterns? Whether or not academicians

engaged in entrepreneurial education (EE) need specialized education / training to develop expertise in EE? In truth, the theme of 'entrepreneurship education' is still less explored an area of research. EE research is highly fragmented and critical studies / approaches are missing therein (Fayolle, 2013:697). Bechard & Gregoire (2005) pointed out towards lack of theoretical grounding in EE research. As such there is the need to reduce the level of fragmentation and enhance the level of theoretical grounding in EE research as well as to formulate a robust theory in such an area.

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