



Assessing the role of the teacher in introducing entrepreneurial education in engineering and science courses



Heidi Teerijoki^{*}, Karen A. Murdock

Technical University of Denmark, Department of Management Engineering, Produktionstorvet, Building 426, 2800 Kgs Lyngby, Denmark

ARTICLE INFO

Article history:

Received 31 January 2014

Received in revised form 13 May 2014

Accepted 13 May 2014

Available online 5 June 2014

Keywords:

Entrepreneurship education

Teacher perception

Teacher intention

Embedded education

ABSTRACT

The paper analyzes the initial impact of a Danish training program aimed at fostering entrepreneurial mindset through disciplinary education. Targeted at teachers from multiple disciplines within three universities in Denmark, the program's main objective is to influence the teachers' perception about entrepreneurship education and provide them with skills and tools to embed entrepreneurial skills and thinking in their courses in order to expose a wider cross-section of university students to entrepreneurship. The qualitative analysis based on semi-structured interviews focuses on the experience of the teachers of one participant university. It focuses on the role of teachers and emphasizes their perceptions and intention formation through the framework of the Theory of Planned Behavior. The results suggest that the program can positively impact the teacher's perception although the link to intentions is less easily established.

© 2014 Elsevier Ltd. All rights reserved.

1. Introduction

Entrepreneurship as a force of economic development has for the last three decades captured the imagination of governments, industries and individuals (Van Praag & Versloot, 2007). This has motivated the on-going discussion about how to increase entrepreneurship activities as a way to boost economic growth. The role of higher education in creating more and better entrepreneurs has become a major part of the discussion even as the impact of entrepreneurship education on students' subsequent entrepreneurial activities remains unsubstantiated (Oosterbeek, van Praag, & Ijsselstein, 2010; Von Graevenitz, Harhoff, & Weber, 2010).

A common understanding of what constitutes entrepreneurship education is still evolving as discussion rages about what it should contain and who should teach it. The more traditional approach of entrepreneurship teaching and learning focuses mainly on venture start-up. However, the concept of the entrepreneurial mindset appears to be developing alongside traditional approaches and has the potential to increase access to entrepreneurship education to a wider cross-section of students, especially those in non-business disciplines.

The entrepreneurial mindset has been acknowledged in the entrepreneurship literature as an important antecedent of entrepreneurially prone persona. While the definitions vary, risk-taking, opportunity-seeking, experimental and proactive attitude have often been connected to the concept. Kuratko and Hodgetts (2004; 30) highlighted the reach of entrepreneurial mindset by describing entrepreneurship as a “dynamic process of vision, change and creation”, which requires “an application of energy and passion towards the implementation of new ideas and creative solutions”. In their definition Kuratko and

^{*} Corresponding author. Tel.: +45 52 69 01 73.

E-mail addresses: hete@dtu.dk, heidi.teerijoki@gmail.com (H. Teerijoki).

Hodgetts intentionally broaden the concept of entrepreneurship to cover not only enterprise creation but also individual behavior in both business and non-business activities. Following the same notion the European Union describes entrepreneurial mindset as “a key competence for all, helping young people to be creative and confident in whatever they undertake” (EU, 2008; from Gibb, 2011).

Entrepreneurship education has to a large extent remained as a stand-alone discipline although examples of experimentation involving embedding the entrepreneurial mindset through problem based learning into different courses across several university departments can be found. Other approaches include the creation of entrepreneurial university culture. This has been the case for example at the Chalmers University of Technology in Sweden, where initiative has been undertaken to develop university structures that support entrepreneurial thinking and actions through both infrastructural and cultural changes (Jacob, Lundqvist, & Hellsmark, 2003).

The majority of disciplinary entrepreneurship education is offered as elective courses, which primarily attract students who are already interested or curious about the subject. This means that a big portion of students complete higher education without ever being exposed to entrepreneurship or entrepreneurial thinking. This is unfortunately working against the entrepreneurial education goals set by the EU to have every single student exposed to entrepreneurship education throughout their studies (EACEA Eurydice, 2012, 94 pp.). While still focusing on finding ways to increase the effectiveness of present entrepreneurship education, an equally important challenge is to trigger the entrepreneurial curiosity in those students who do not believe that entrepreneurship is relevant to their career goals.

As mentioned above, some pioneering universities are attempting to embed entrepreneurship education into existing course framework by teaching entrepreneurial thinking as part of disciplinary courses, focusing on the entrepreneurial mindset rather than on start-up activities (Morris, Kuratko, & Cornwall, 2013). The movement towards teaching entrepreneurially within disciplines pushes the focus to training a wider cross-section of teachers in active and collaborative learning techniques to accomplish this goal.

The role of the teacher as key stakeholder in the process of embedding entrepreneurial thinking and attitude in non-entrepreneurship courses has not been systematically investigated. Furthermore, the teacher's attitudes, commitment and actions towards implementing complementary teaching goals, as well as how these attitudes can be formed has received only little attention. Gibb (2011) presents one of the few studies on teacher perceptions towards entrepreneurship education outside the discipline. It notes the existence of strong prejudices against implementing entrepreneurship-labeled topics into the curriculum due to its connotations towards capitalism and commercialization.

The purpose of this paper is to investigate the attitudes of teachers in the Danish educational context towards the embedded approach to teaching entrepreneurial thinking by investigating the effects of a teacher education program, the Teaching Corps, on the mindset and intention formation of teachers towards entrepreneurship education embedment. Based on the notion that attitudes towards behavior are a crucial to the adoption of that behavior (Ajzen, 1991), the paper analyzes preconceived notions of entrepreneurship and attitudes towards entrepreneurship among teachers. We hope to contribute to the discussion by showing how attitudes can be adjusted by training that may increase the effectiveness of cross-disciplinary entrepreneurship education. It is this focus that has motivated the main research question.

How can a course on entrepreneurial teaching, aimed at science and engineering teachers, impact their perceptions on entrepreneurship and entrepreneurial education?

Further on the paper focuses on discussing the role of received education on entrepreneurial teaching in the intention formation process of an individual teacher:

How can a received education on entrepreneurial teaching affect the subsequent intentions to embed entrepreneurship in their courses?

The results suggest a strict division on the perceptions among teachers. The purpose and goals of embedded entrepreneurial education seem to have two varying interpretations; those teachers who finished the program discuss embedded entrepreneurship education as a mindset while those that chose to discontinue the training program approach the topic from the domain of concrete start-up knowledge provision. These perceptions transfer to the intention creation processes and justification of the importance of any subsequent implementation intentions.

The structure of the paper is as follows. The first section briefly explores the literature and the Theory of Planned Behavior as a framework for analyzing the case of the Teaching Corps program. The next section describes the methodology for the analysis and is followed by the presentation of results and discussions. The paper ends with some concluding remarks and implications within the limitations of the study.

2. Conceptual framework

The literature on the core content of entrepreneurship teaching and skill development is extensive, but has almost exclusively focused on disciplinary entrepreneurship education in the form of individual courses and entrepreneurship majors and minors (Katz, 2003; Morris et al., 2013). As the concept of entrepreneurial university continues to attract attention, it has mainly been researched through framework conditions to allow the creation of a university culture matching the description of entrepreneurial organization (see e.g. Morris et al., 2013; Urbano & Guerrero, 2013). The concept of entrepreneurial mindset has increasingly appeared in the entrepreneurship research focusing on cognition and is also

Download English Version:

<https://daneshyari.com/en/article/357401>

Download Persian Version:

<https://daneshyari.com/article/357401>

[Daneshyari.com](https://daneshyari.com)