The Recognition of Entrepreneurship within a Multiversity

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Aim of the Paper

Entrepreneurship education has a central role in encouraging entrepreneurial mindset across disciplines. Although creating entrepreneurial mindset and culture in different academic fields has become an important assignment in European higher education policy, little attention has been paid on the grass-root level, sometimes even normative institutionalized settings' influence on this mission. We will address this building block in this paper by focusing on investigating the recognition of entrepreneurship within a multiversity. Drawing from a data gathered in 2014 from business and non-business students we compare students' views on entrepreneurial climate within a university, their perceptions on entrepreneurial-self, and their appreciation of entrepreneurial individuals. The particular aim of the paper is to analyze how the perceptions of entrepreneurship vary among students within a multiversity.

Background Literature

Across European Union the policies directing higher education strongly encourages for universities to create an increasingly entrepreneurial culture in all fields of sciences (European Commission 2011; 2003). Entrepreneurship education (EE) has been noted as a vital part of this mission. In this study we define EE as activities aiming to foster entrepreneurial mindsets, skills, and attitudes of students in higher education. This reflects the previous, diverse definitions on entrepreneurship education, where EE is defined through its different forms; "about", "for", "through", and "embedded" (Gibb 2002; Pittaway and Cope 2007). Previous research has highlighted the importance of educating more entrepreneurial individuals (Hytti and O'Gorman 2004; van Gelderen 2010).

Despite the form of EE, the general aim is to educate "entrepreneurial professionals", entrepreneurial individuals, who can either employ themselves or become employed by others after graduation. These micro-level objectives are connected to wide macro-level benefits and impacts, such as economic renewal and growth and entrepreneurial development. (Nabi and Holden 2008; Rae 2007; Galloway and Brown 2002.) The importance of such contributions has been brought up particularly during the economic downturn (Rae, Martin, Antcliff, and Hannon 2012).

Along with political tendency, the education of more entrepreneurial individuals has become a major trend in higher education, also outside business schools (Fayolle 2013). This has warranted a rapid development, albeit an increased complexity and diversity of EE in higher education (see O'Connor 2013). Since the first entrepreneurship course was introduced in 1945 in Harvard Business School, the profile of EE has improved significantly. The emergence has escalated particularly during the last decades and the content of EE has widened to meet the needs of heterogeneous student population. (Vesper and Gartner 1997; Katz 2003; Fayolle 2013.) This concerns especially multi-disciplinary universities, multiversities. Accordingly, EE has, especially in a grass-root level, encountered resistance and doubts, whether entrepreneurship education in higher education sector is feasible or even desirable. Thus, the proposition that entrepreneurship cannot be taught, at least not in a university, seems to hold strong (Hindle 2007). On the contrary in some disciplines, such as in business studies considered as a traditional home-base of EE, the field is more entrepreneurship-minded cultural basis which generates opportune circumstances for entrepreneurship education (see Philpott et al. 2011).

Resistance and skepticism towards EE in a grass-root level may be linked to teaching methods, pedagogy and newness of EE that challenge old academic traditions and cultural orders (Philpott et al., 2011). Entrepreneurial ideals within a multiversity have been experienced as a threat for academic freedom and critical nature of science (Jakonen and Tilli 2011; Tomperi 2009). In EE, there is a general agreement that traditional teaching may not be the most suitable alternative for enhancement of entrepreneurial skills and mindsets. EE research has highlighted that in EE the methods are (inter)active, experiential, and intertwined closely with real-word (see e.g. Fayolle 2013). These "entrepreneurial methods" are not considered natural in all academic fields (Postareff, Lindblom-Ylänne, and Nevgi 2009.). In addition, labeling experiential learning methods as "entrepreneurial methods" may have grown exasperation in some field of sciences since principles of experiential education were introduced already in 1800s by Dewey (see Kivinen et al. 2011).

Despite of grass-root level resistance and its premises, EE argues to contribute to highly important micro- and macro-level objectives such as employability of graduates. The resistance may, however, prevent these contributions of EE to occur. University staff has a highly important role on transmission of entrepreneurial principles to students (Becher 1989; Ylijoki 1998). We assume that the students' background and especially their discipline has role in the perception of entrepreneurial-self, whether they value entrepreneurially acting in individuals, and entrepreneurial climate within a university in which they study. During their university studies students are socialized into their own academic tribes and the ways of action and thinking which are typical in that specific academic field. Mainly the staff transmits to the students those values and principles which are acceptable within the tribe. (Becher 1989.) Thus, we claim that in order to fulfill the micro- and macro-level requirements set for EE in universities, the EE has to recognize the institutionalized settings embedded in different disciplines. In addition, we are interested how students' perceive the work life relevance of entrepreneurial mindsets, skills, and attitudes.

Based on above, we suggest the following hypotheses:

H1: The business students perceive entrepreneurial climate within a higher education institution to be more encouraging towards entrepreneurship than their non-business peers

H2: The business students value entrepreneurial behavior more than their non-business peers

H3: The business students consider themselves to be more entrepreneurial than their non-business peers

Our study will contribute to the recent research by addressing the challenge that EE has not punched through in all academic fields. Our findings highlight that entrepreneurship education studies need to focus on grass-root level conditions and resistance of EE in a university level before pursuing for higher goals. Similarly, our study suggests that prevailing EE hype inside business schools may even prevent entrepreneurship educators to recognize the multiversity level reality.

Methodology

In testing our hypotheses we use two data sets covering the perceptions of a) business school students and b) non-business students within a Finnish multiversity. The data were collected via internet-aided questionnaire in the Fall 2014. First data set (a) consists of the perceptions of first year students in a business school. The data was collected during an "Entrepreneurship 101" course which is mandatory for all first year students. The

questionnaire was sent to 239 students of which 41 responded. This generates a response rate of 17 percent. In this data 56 percent of the respondents were women and the average age was 21 years.

Second data set (b) was collected from non-business school university students who participated in a similar "Entrepreneurship 101" course in Fall 2014. The lecturers and the content of the lectures were the same as in the given for the business school students a month earlier. The questionnaire was sent to 109 students of which 39 respondent. This generates a response rate of 36 percent. Majority of the respondents were women, 82 percent. The average of the respondents was 25 years.

The final sample consists of 80 observations. In this sample the average age of the respondents was 23 years varying from 19 to 34 years. In all, 69 percent of the respondents were women.

In this study, by using Mplus Version 6 we first examined whether we can achieve configural, metric, residual, and scalar invariance between business and non-business student's perceptions on entrepreneurship. Secondly, we tested if the latent means of entrepreneurial climate, entrepreneurial-self, and appreciation of entrepreneurial individuals were different between business and non-business students.

Results and Implications

Our results show that unexpectedly university students value entrepreneurial individuals and consider themselves entrepreneurial evenly across multiversity. Business students evaluate atmosphere at the university to be more encouraging towards entrepreneurship. These results reveal the current grass-root level conditions that should guide EE in the future. More attention should be paid not convincing students but leveraging resources to changing attitudes of university staff about the importance of EE. EE cannot and should not ignore the criticism pointed towards its premises if it aims to break through within different disciplines. Instead, there should be space for open discussion and understanding of cultural diversity of university field, which would enable the creation of more entrepreneurially-minded multiversity. Our study will extend the current explanations of addressing the challenge of why EE has not punched through in all academic fields. Our findings highlight that entrepreneurship education studies need to focus on grass-root level conditions and resistance of EE in a university level before pursuing for higher goals. Similarly, our study suggests that prevailing EE hype inside business schools may even prevent entrepreneurship educators to recognize the multiversity level reality.

In conclusion our study contributes to research on EE by viewing how the perceptions of entrepreneurship and entrepreneurial climate vary among university students. This variance highlights the need for adjusting the approaches of EE to take into account huge difference in the perceptions of entrepreneurship in multi-disciplinary higher education institutions. Our practical implications are linked to guiding EE policies to put effort in detailed understanding of the institutional imprint of different disciplines within a multiversity.

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Appendix 1

Appendix table: Items on the perceptions of entrepreneurship used in the analysis

Entrepreneurial climate
The atmosphere in the university encourages engaging in entrepreneurship
University studies encourage acting and thinking entrepreneurially
University studies give me possibility to receive good tools to found a company and to work as an entrepreneur
Appreciation of entrepreneurial individuals
Entrepreneurial people succeed in life
Entrepreneurial individuals are sought after employees
Being entrepreneurial is an admirable characteristic.
Each individual should act entrepreneurially in their life.
Entrepreneurial-self
I consider myself entrepreneurial
I aim to be entrepreneurial
Working as an entrepreneur interests me

Tables

Table 1. Descriptive statistics and correlation matrix of the relevant variables

	Mean	**Std. Dev.**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
The atmosphere in the university encourages engaging in entrepreneurship	3.2	1.299									
University studies encourage acting and thinking entrepreneurially	3.2	1.244	0.508*								
University studies give me possibility to receive good tools to found a company and to work as an entrepreneur	3.0	1.207	0.381*	0.466*							
Entrepreneurial people succeed in life	3.5	1.350	0.109	0.122	0.183						
Entrepreneurial individuals are sought after employees	4.0	0.987	0.184	0.171	0.244*	0.376*					
Being entrepreneurial is an admirable characteristic.	3.9	0.883	0.257*	0.255*	0.284*	0.310*	0.520*				
Each individual should act entrepreneurially in their life.	3.2	1.370	–0.122	0.128	0.132	0.583*	0.249*	0.305*			
I consider myself entrepreneurial	3.2	1.280	–0.081	0.102	0.125	0.198*	0.247*	0.362*	0.403*		
I aim to be entrepreneurial	3.7	0.996	0.204	0.238*	0.271*	0.293*	0.427*	0.652*	0.383*	0.605*	
Working as an entrepreneur interests me	3.4	1.398	0.131	0.135	0.100	0.454*	0.304*	0.268*	0.433*	0.529*	0.421*

n= 80, * p<0.05

Table 2. Measurement Invariance between students

	Fit Statistics					Model Comparison	
Model	***χ2 (df)***	***CFI***	***TLI***	***RMSEA***	***SRMR***	***S-B Δχ2 (df)***	***p***
Model 1: Configural invariance	71.425 (58)	0.951	0.924	0.077	0.083		
Model 2: Metric invariance	77.420 (65)	0.954	0.937	0.070	0.099	5.995 (7)	0.540
Model 3: Residual invariance	78.949 (68)	0.960	0.937	0.070	0.099	1.529 (3)	0.676
Model 4: Scalar invariance	96.034 (78)	0.934	0.924	0.077	0.110	17.085 (10)	0.073

Note! Configural invariance: equal factorial structure, Metric Invariance: configural invariance + equal factor-loadings, Residual invariance: metric invariance + equal residual loadings, Scalar Invariance: metric invariance + equal item-intercepts.

Table 3. Groups means of latent variables

	Business students	**Non-business students**
Entrepreneurial climate	3,4146	2,8291
Appreciation of entrepreneurial individuals	3,5793	3,7244
Entrepreneurial-self	3,4472	3,4103

Table 4. Difference in latent means between business and non-business students

Entrepreneurial climate	0.614**
Appreciation of entrepreneurial individuals	-0.044 NS
Entrepreneurial-self	0.021 NS

Note! non-business students as a reference group (latent means fixed to zero). * p<.05, ** p<.01, *** p<.001