

The university is dead; long live the university: Are universities the principle source of social capital for student and graduate entrepreneurs?

Prof Nigel Lockett, Professor of Enterprise at Leeds University Business School

Address: Maurice Keyworth Building, University of Leeds, Leeds, LS2 9JT. Tel: +44 (0)113 343 8354

Email: n.lockett@leeds.ac.uk Website: <http://cees.leeds.ac.uk>

Dr Carla Quesada-Pallarès, Postdoctoral Researcher at Leeds University Business School

Dr Antonio Padilla-Meléndez, Professor of Management and Entrepreneurship at Universidad de Málaga

Dr Karen Williams-Middleton, Associate Professor at Chalmers University of Technology

Prof Sarah Jack, Professor of Entrepreneurship at Lancaster University Management School

Questions we care about

This paper explores the role of social capital acquired by students during student and graduate entrepreneurial journeys at university. The objective is to understand how universities can facilitate social capital acquisition in the context of entrepreneurial learning. The study builds on a collaboration between three European universities: Chalmers University of Technology (Sweden), University of Leeds (United Kingdom), and Universidad de Malaga (Spain).

We ask:

1. What is the relationship between social capital and entrepreneurial learning? What is the added value as perceived by student and graduate entrepreneurs?
2. How can educators use the development of social capital to enhance entrepreneurial learning, particularly across formal, non-formal and informal entrepreneurial learning activities?
3. What are implications for the future of universities as centres of knowledge, creativity and learning?

Approach

The study is underpinned by relevant literature regarding entrepreneurial learning (Man, 2007; Rae and Carswell, 2001) and education (Higgins and Elliott, 2011; Pittaway et al., 2011). It also addresses the impact of social capital on the development of entrepreneurs (Anderson et al., 2007; Foxtton and Jones, 2011; Sarasvathy and Dew, 2005), and the research regarding the entrepreneurial university (Audretsch et al., 2014; Fayolle and Redford, 2014).

The study utilises a qualitative methodological approach, drawing on what is termed the critical incident technique. To start, student/graduate entrepreneurs were asked to map their entrepreneurial journey based on a timeline, specifying stakeholders whom they associated to critical events. This visual aid was then used throughout the interview, in which respondents provided a verbal history about their timeline and the critical relationships which had influenced their own entrepreneurial behaviour.

We selected 24 respondents based on three criteria: (1) they had to be a university final year student or in their first year of graduation (both undergraduate and postgraduate students from various subjects were selected); (2) they had to have been engaged in some entrepreneurial activity; (3) the sample was split 50:50 between individuals having completed some formal entrepreneurship education (credit-bearing courses) and individuals without any

formal entrepreneurship education. Gender and country variables were also considered. This selection criterion resulted in the formation of two groups of respondents at each institution: (a) Five 4 respondents who completed some formal entrepreneurship education (gender mix); and (b) Five 4 respondents who had not completed any formal entrepreneurship education (gender mix).

Data was analysed using narrative analysis of the individual learning, and social network analysis of the socialised learning (to address network and social capital developments). Building on social learning theory (Bandura, 1977), socialised learning is understood to include observation and emulation of role models -role-sets (Carsrud and Johnson, 1989)- as part of an individual's identity and legitimacy development.

Results

Preliminary analyses of the data inform us that mentors known in informal and non-formal education events and incubators are the main source to ask for help when respondents feel they need to. Maybe because the interview is retroactive, respondents were aware of this need before it was too late; in fact, respondents were the ones who deliberately contact these people to ask them for help in their various entrepreneurial activities.

Implications

This paper contributes to knowledge and understanding by exposing a previously understudied value of social networking in entrepreneurship education at universities. At an institutional-level, it legitimizes university inclusion of social networking activities into formal and non-formal entrepreneurship education, and the encouragement of informal entrepreneurial learning. Moreover, at an individual-level, it motivates educators to embed these activities within the curriculum in order to facilitate entrepreneurial learning. Nonetheless, to more fully understand the student/graduate entrepreneurial journey, more research is needed. Future work should not only consider entrepreneurial activities as critical incidents, but also the relevance of other interactions in the entrepreneur's life, leading to a greater understanding of their economic, social and cultural impact.

Value / Originality

Social networking goes beyond simply building a contact list; it is part of the social capital necessary for the entrepreneurial journey. This study exposes a previously missing value of social networking in entrepreneurial education programmes. It encourages educators to embed social networking activities into the curriculum to facilitate entrepreneurial learning. The study highlights the importance of social capital acquired at university, as part of the student/graduate entrepreneurial journeys. This revitalises the role of the university as a key enabler of economic, social and cultural impact through student/graduate entrepreneurs. Thus, the university is dead (as was traditionally understood); long live the (entrepreneurial) university.

Introduction

During the last decade, entrepreneurship has become a 'hot topic' for both society and academia (Matlay and Carey, 2007; Young, 2014). Not only do governments and organisations worldwide consider entrepreneurship to be a vital part of overcoming the recession (OECD, 2009, 2013), but entrepreneurship is also necessary if institutions, including universities, are to educate people to be part of any 'enterprise society' (Cedefop, 2011; European Commission, 2014, 2015; Gibb, 2005). Indeed, in developed countries, such as the UK, the aspiration of young people to start their own business has more than doubled (Young, 2014).

For this reason, the enterprising spirit or entrepreneurial orientation of an individual should be a 'must' if people are to be part of an innovative global labour market: creating entrepreneurs but also facilitating "a positive outlook on life that enables [them] to succeed in any endeavour" (Young, 2014, p. 15). Moreover, the role of universities, as higher education institutions (HEIs), is likely to be crucial in this. However, what is the role of universities in supporting the development of entrepreneurial learning in these individuals? How might relationships within and beyond universities enhance an individual's entrepreneurial learning? Within the context of entrepreneurial learning in universities across Europe, we examine the role played by social capital developed during students/graduates' entrepreneurial journeys. The paper continues with a summary of the theoretical framework, the methodology and the results analysis, finishing with the discussion and conclusion.

Theoretical framework

Entrepreneurial Learning in Universities

The seminal work of Coombs et al. (1973) established a typology of educational programmes: (1) *formal* education programmes, structured and chronologically graded activities that go from primary school to universities and professional training; (2) *non-formal* education programmes, organised activities outside the curriculum; and (3) *informal* education programmes, lifelong educational processes developed through daily life experiences of the individual (Knapper and Cropley, 2000; Ngaka et al., 2012; Sharma and Choudhary, 2015). This 'educational triad' is theoretically clear, which has helped teachers and educators to design modules with specific educational objectives. Nonetheless, in the context of entrepreneurial learning, it results in confusion: well-planned formal and non-formal educational objectives mysteriously disappear and *unplanned* informal educational outcomes seem to spontaneously appear.

At universities, educating people in entrepreneurship or 'entrepreneurship education' is typically based on programmes whose outputs are mainly focused on new venture and job creation or increasing and entrepreneurial mindset and spirit (Béchar and Toulouse, 1998; Fayolle et al., 2006; Henry et al., 2005). Although universities programmes are normally considered formal education (1), entrepreneurship education can be seen as more complex because it also involves non-formal (2) and informal (3) education processes with more of a focus on interactive and experiential learning (Cedefop, 2011). For example, a student who attends a class about business planning gains knowledge, skills and attitudes through the module (formal education), the meetings with entrepreneur guest speakers organised by the institution (non-formal education), and the current news about successful or failed businesses (informal education). However, the educational objective of a programme may be difficult to assess when elements of informal education are included (Skule, 2004). Indeed, how can educators determine if informal education is acquired only through the planned activities?

With the unique educational objective of developing entrepreneurial capabilities, an entrepreneurship programme may require formal, non-formal and informal education activities to deliver the desired learning outcomes (Edwards and Muir, 2005; Honig, 2004). This increased complexity makes the assessment of achieved learning objectives, in a direct and clear way, difficult. Perhaps for this reason, there are few studies that examine the relationship between the exposure to entrepreneurship education and the consequential entrepreneurial behaviour of the student (Pittaway and Cope, 2007).

Achieving impact by entrepreneurship education is commonly approached through delivering non-formal education programmes, typically involving nascent entrepreneurs or entrepreneurs with continuing professional development needs (e.g. Ayinla, 2007; Ibrahim and Soufani, 2002; Karlan and Valdivia, 2011; Klofsten, 2000). For example, in the case of the UK, two relevant programmes were developed. In 2004, the *Lancaster LEAD (Leading Enterprise and Development)* programme trained small business owners-managers on their leadership skills for 10 months; half of the survey respondents stated an average growth rate of 3.5% a year (George, 2013). In 2010, the *10,000 Small Businesses UK* programme was offered to small business owners in Birmingham, Leeds, London and Manchester areas; its application had a significant positive impact on accelerating business growth with participants growing at between 23% and 42% per year (Goldman Sachs, 2014).

Most of the studies that explore the impact of entrepreneurship education programmes in universities use proxy variables such as satisfaction (Cruz et al., 2009), attitudes (von Graevenitz et al., 2010; Lackéus, 2014) and intentions (Piperopoulos, 2012; Souitaris et al., 2007). The complexity of analysing the relationship between entrepreneurship education at universities and entrepreneurial behaviour means that this relationship is difficult to prove (Matlay, 2008); this situation highlights an important gap in the entrepreneurship literature. Moreover, there is little research analysing this relationship; for instance, the European Commission (2012) analysed various universities in order to examine the impact of entrepreneurship studies on their alumni; 16% of the entrepreneurship alumni is self-employed in comparison with the 10% of non-entrepreneurship alumni. Hill's (2011) work, on the other hand, analysed the impact of MBA entrepreneurship education programmes in Ireland; reporting that of the 27% of MBA graduates who founded ventures after completing the programme, 69% did not consider the programme as the main reason for being entrepreneurial. Consequently, a question arises: if we have not been able to prove that entrepreneurship education programmes are not the main reason for increasing entrepreneurial capabilities, where do university students acquire these skills? Indeed, what is the role of the university?

Consequently, it is clear that for entrepreneurship education programmes to have a direct and positive impact on entrepreneurial behaviour and capabilities, there is a need for deeper understanding of the formal, non-formal and formal elements. Considering Gupta and Bharadwaj (2013), business schools' pedagogical model needs to be re-considered because entrepreneurship goes beyond business schools: it is a university competence with interdisciplinary possibilities (Gibb et al., 2013; Janssen et al., 2007; López-Robles et al., 2014; Valencia Arias, 2013). In fact, 39% of UK arts students were entrepreneurs compared to 5% of students from business studies (Greene and Saridakis, 2007). Should, an "inclusive, lifelong approach to enterprise learning" be considered as an alternative to traditional entrepreneurship education programmes? (Rae, 2010, p. 600).

Interdisciplinarity is not the only change that needs to be considered if business schools are to adapt to reality. An individual's participation in education programmes needs to be refocused on the type of learning undertaken (Gupta and Bharadwaj, 2013; Higgins and Elliott, 2011;

Lackeus and Williams-Middelton, 2015; Pittaway et al., 2011; Rae, 2010) and the existence of teachable and non-teachable entrepreneurship elements (Rae and Carswell, 2001; Shepherd and Douglas, 1997). In fact, students require an understanding of education as a learning process whether that is formal, non-formal or informal. Entrepreneurial learning is “concerned with how people construct new meaning in the process of recognising and acting on opportunities, and of organising and managing ventures” (Rae and Carswell, 2001, p. 153). This new vision demands new frameworks that help educators to identify and make explicit entrepreneurial learning (Man, 2007) because “the recognition of non-formal and informal learning outcomes may increase the number of graduates” (Werkins, 2010, p. 17) and their entrepreneurial capabilities.

This holistic approach allows us to take into account all types of learning environments both inside and outside the curriculum and across the university by considering the entrepreneurial journey as a path to develop an individual’s long-life entrepreneurial learning. Thus, it is time then to change the focus of research: from business schools to universities, from entrepreneurship education to entrepreneurial learning.

Entrepreneurial Social Capital in Universities

Entrepreneurship has been recognised as an economic activity embedded in society (European Commission, 2015; OECD, 2013) and has led to the identification of social capital as important for business development (Cope et al., 2007; Eagle et al., 2010; Light and Dana, 2013; Stam et al., 2014; Westlund and Adam, 2010).

Even though social capital and entrepreneurship has been a research topic since the 1980s (Aldrich and Zimmer, 1986; Granovetter, 1985), their inter-relationship is attracting increased interest (Chen et al., 2015; Estrin et al., 2013; Stam and Elfring, 2008). For instance, Anderson et al. (2007) interviewed 10 British entrepreneurs from technological firms; their results suggest that social capital “resides in the [entrepreneurial] network as connections and interactions that take place between individuals” (p. 264). Bauernschuster et al. (2010) stated that the propensity to be an entrepreneur is increased when s/he gains access to social capital via club memberships of small German communities. Westlund et al. (2014) proved that entrepreneurial social capital is a determinant for Swedish new firm creation, with more influence in rural areas.

Therefore, for an entrepreneurial network to be considered as providing social capital, the network must add value for the nascent entrepreneur (Foxton and Jones, 2011). That is, it must consist of individuals, groups and organisations that support, advice or finance the entrepreneur's growth (Bosma et al., 2004; Casson and Della Giusta, 2007; Kim and Aldrich, 2005). Besides, the entrepreneurial social capital is critical to the perseverance through the entrepreneurial journey, as supported by the principles of effectuation (Sarasvathy and Dew, 2005). Subsequently, how can this process be initiated? Is it possible for the emerging or nascent entrepreneur to learn about creating and managing networks in order to develop social capital?

Some entrepreneurship education programmes have been using entrepreneurs to connect students to the ‘real world’, providing them an initial network of entrepreneurs and the skills to develop their own network (e.g. Gordon et al., 2012; Lans et al., 2011), although few studies provide results of their impact. For example, six months after the *10,000 Small Businesses UK* programme application, 43% of the participants reported significant change in their business relating to their enhanced business network (Goldman Sachs, 2014). However, like the *LEAD* programme (George, 2013), the participants are already running growing

businesses or social enterprises that meet the selection criteria of the programmes so cannot be considered as nascent entrepreneurs.

Obviously, not all entrepreneurs with an entrepreneurial network attended an entrepreneurship education programme (e.g. Dawson et al., 2011; Jack et al., 2010; Saunders et al., 2013), which requires the consideration of where and how they formed their network and subsequent social capital.

In addition, most of the entrepreneurship education programmes view entrepreneurial networks as non-formal education activities (e.g. enterprise society meetings, entrepreneur clubs, entrepreneurial guest speakers and enterprise awards) separate from the curriculum. However, the type of learning generated within these activities corresponds to an informal learning; because as much as universities design and deliver activities outside the curriculum to provide students with an initial network of entrepreneurs, the learning acquired to become a successful entrepreneur goes beyond these *planned* activities and comes additionally from *unplanned* activities. In the context of universities, the need to investigate the complex and interdependent activities of formal, non-formal and informal entrepreneurial learning and the role and development of social capital is now compelling.

Stemming from this, we consider three key research questions:

1. What is the relationship between social capital and entrepreneurial learning? What is the added value as perceived by student and graduate entrepreneurs?
2. How can educators use the development of social capital to enhance entrepreneurial learning, particularly across formal, non-formal and informal entrepreneurial learning activities?
3. What are the implications for the future of universities as centres of knowledge, creativity and learning?

Methodology

Gaps identified by the literature review helped to build three research questions. The paper aims to explore the role played by the social capital acquired in universities during student and graduate entrepreneurial journeys. The ultimate objective is to understand how universities can facilitate this in the context of entrepreneurial learning. Thus, we followed an interpretive epistemological perspective underpinned by a qualitative research approach, which allowed us to understand the lived experiences of the interviewed entrepreneurs (Gephart, 2004). The critical incident technique was chosen to facilitate a reflexivity process for the respondents in order to help them theorize and explain their past, present and future of their entrepreneurial journey (Cassell and Symon, 2004).

Empirical Setting

This study involves student and graduates entrepreneurs from three European universities (Chalmers University of Technology, Sweden; University of Leeds, UK; and University of Malaga, Spain). These three institutions were chosen because of their specific entrepreneurship programmes. As mentioned, it is important to consider that entrepreneurship can be learned through formal, non-formal and informal educational programmes; Malaga, Leeds and Chalmers universities are three different HEIs that provide three different types of education in entrepreneurship.

Sample and Data Collection

Criterion sampling was used (Neergaard and Ulhøi, 2007) following three key criteria for selecting the entrepreneurs to interview: (1) they had to be a university final year student or in their first year of graduation (both undergraduate and postgraduate students from various

subjects were selected); (2) they had to have been engaged in some entrepreneurial activity; (3) the sample was split 50:50 between individuals having completed some formal entrepreneurship education (credit-bearing courses) and individuals without any formal entrepreneurship education. Gender and country variables were also considered. This selection criterion resulted in the formation of two groups of respondents at each institution: (a) 4 respondents who completed some formal entrepreneurship education (gender mix); and (b) 4 respondents who had not completed any formal entrepreneurship education (gender mix).

The main researcher of each institution contacted the respondent by e-mail and phone. To start, the student/graduate respondent was asked to map his/her own entrepreneurial journey based on a timeline, specifying stakeholders associated to critical events (Deakins and Freel, 1998). This visual aid was then used throughout the critical interview, in which respondents provided a verbal history, with particular emphasis on the illustrated stakeholder relationships, which had influenced their own entrepreneurial behaviour. The interview was conducted audio recorded; on average, interviews were 45 minutes long.

Data analysis

Interviews were transcribed and analysed using various categories. NVivo v10 was used a software to help with the analysis process. A process of looking for patterns and commonalities among interviews of each institution was done; this process established categories (see Table 1) and themes to explain the situations of the respondent (McKeever et al., 2015). This data was analysed to find details of these themes. Each respondent was used as the unit of analysis to allow a better understanding of their processes.

Table 1. Themes and Categories emerged from the analysis.

Themes	Categories
Activity: interaction with others as an activity linked to an entrepreneurial activity	Family Friends Incubator Mates Mentor
Awareness – Contact settings: ways that they found out who they need to speak to in order to cover their need	Formal Non-formal Informal
Awareness – Initiation: how was the interaction / contact initiated?	Deliberative Incidental
Awareness – Initiator: who suggested the interaction / contact?	Educator Entrepreneur itself Other
Awareness – Moment: when happened the interaction?	Before the need for contact After the need for contact
Awareness – Reasons to contact: reasons behind their interaction with others	Feedback seeking Help-seeking Information seeking

Preliminary results and conclusions

So far, only three interviews have been analysed –one per country-; preliminary results are presented here. Figure 1 allows us to identify the type of variables that influence the entrepreneurial activity of the respondent.

The person with whom respondents most often make contact is the mentor, followed by the incubator or institution helping them with the start-up process. Therefore, the respondent usually seeks out someone with some degree of experience in the field in which they want to start their entrepreneurial activity or with the entrepreneurial experience needed to help them.

The reason most commonly stated for why this person is contacted is because the respondent feels they need help in their entrepreneurial process. Indeed, help-seeking behaviour “involves asking others for assistance or advice” (Karabenick and Knapp, 1988 cited in Gerken, Beusaert, and Segers, 2016, p.140). Authors such as Hoffman, Lei, and Grant (2009) and Van der Rijt et al. (2013) see help-seeking behaviour as one of the main factors that determine job success.

These contacts seem to most often be established within an informal educational context; nonetheless; non-formal educational contexts are also seen as a key source where respondents find the ‘right person’ to fit their needs. Thus, informal and non-formal settings such as small talks in some events, extracurricular meetings, entrepreneurs met during a class module, etc. are places that entrepreneurs use.

Most of the contacts are initiated deliberately; i.e., the respondents were aware that they need help, information, or feedback, and thus sought out someone to ask, and it is the respondents are that take the initiative to make these contacts. Given that this need is deliberative and usually initiated by the respondent, it seems that they realise the need before it appears; therefore, they anticipate their need of contacting someone to prevent an immediate future event, which will not probably be able to solve by themselves, like seeking for advice for financial sources. But can this awareness be caused by the fact that they are telling us a past story or because they were already aware of this in the moment they needed to?

Indeed, several research questions still remain open in this work. Particularly what could be involvement of the educators in promoting the development of social capital, the relevance of each of the different entrepreneurial learning activities (formal, non-formal and informal) and what activities have to develop the universities in the future regarding this, if any. Thus we wonder...

1. What is the relationship between social capital and entrepreneurial learning? What is the added value as perceived by student and graduate entrepreneurs?
2. How can educators use the development of social capital to enhance entrepreneurial learning, particularly across formal, non-formal and informal entrepreneurial learning activities?
3. What are implications for the future of universities as centres of knowledge, creativity and learning?

Furthermore, would these questions be answered in a different way as more experience is gain by the student/graduate entrepreneur? Are we facilitating a process of awareness by asking them to reflect in their entrepreneurial journey? How can we foster this awareness process in early entrepreneurial stages?



Figure 1. Nodes compared by number of coding references.

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