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Student led enterprise groups and entrepreneurial learning; a UK perspective

Sarah Preedy, Paul Jones.

Abstract: *This study considers the phenomenon of student led enterprise groups at United Kingdom (UK) Higher Education Institutions (HEIs); their role, and activities, and their potential to enhance entrepreneurial learning. The research adopted a case study methodology with acknowledgment that a multiplicity of variables influence pedagogical development thereby findings are intended to further understanding and not to produce generalisable data. Findings both support and update prior studies, which posit a link between the groups and opportunities for experiential (Edwards, 2001; Pittaway et al, 2015) and social learning (Pittaway et al, 2011; Young, 2014; Pittaway et al., 2015) with a novel focus on learning outcomes for group leaders.*

Keywords: *enterprise education; entrepreneurial learning; student led enterprise; UK*

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Introduction

There is an increasing emphasis upon the role universities have in contributing to economic prosperity and of particular relevance to this study is the drive towards encouraging numbers of skilled and enterprising graduates (Gibb, 2010; Rae *et al*, 2012; Wilson, 2012; Jones *et al*, 2013). This study is framed within the context of universities' roles in producing entrepreneurial graduates to examine the ways in which students may learn entrepreneurially within the university environment.

An important facet of the entrepreneurial education experience are the extracurricular enterprise activities initiated by both staff and students (Rae *et al*, 2012; Pittaway *et al*, 2015). Extracurricular activities are seen to be valuable in themselves, regardless of the type of activity, in enhancing students' interpersonal and employability skills (Watson, 2011; Bartkus *et al*, 2012; Milner *et al*, 2016). However, despite the value that such activities may have in enhancing entrepreneurial education, their influence has been largely overlooked in the current literature (Pittaway *et al*, 2011; 2015; Preedy, 2015). This study examines one particular strand of the wide array of extracurricular enterprise activities currently operating at UK universities - student led enterprise groups – to explore their roles, activities and potential as a platform for student learning.

Student led enterprise groups have been defined in prior studies as voluntarily formed groups of students who join together to raise awareness, support and engage in entrepreneurial activity whilst at university (Pittaway *et al*, 2011). Since the first UK student led enterprise group was formally recognised at Cambridge University in 1999 (Cambridge University Entrepreneurs), there has been a continued rise in their numbers across the country (Pittaway *et al*, 2011; RBS, 2014). Although there is disparity between sources on the number of groups operating nationwide, which may be in part due to the fluid nature of group structure year on year whereby new leadership can change the formation and even lead to disbandment, the National Association of College and University Entrepreneurs (NACUE) estimated a rise from 30 groups in 2011 to 64 by 2013 (NACUE, 2013). As their number has increased, several universities have gained recognition for the work of their student enterprise groups with some receiving awards for the activities (Pittaway *et al*, 2011, NACUE, 2013). In the government's drive to develop enterprising graduates (UUK, 2011; QAA, 2012; Witty, 2013; BIS 2014), UK universities are increasingly being encouraged to support student enterprise groups (Young, 2014).

Currently, there is limited empirical research on the phenomenon of student led enterprise groups (Pittaway *et al*, 2011; Rae *et al*, 2012; Pittaway *et al*, 2015) which is symptomatic of a nascent literature regarding extra-curricular enterprise activities (Pittaway, 2009; Pittaway *et al*, 2011; Preedy, 2015) and the fact that they are a relatively recent development. This study represents a first attempt to examine student led enterprise groups

employing a case study approach. As the operation of groups is highly contextualised, a case study research strategy was utilised to examine the phenomenon within its real-life context (Eisenhardt, 1989; Meyer, 2001; Yin, 2014).

This paper will review the literature in detail, framing the phenomenon within the wider context of UK enterprise education and relevant learning theory. The methodology will be outlined and a rationale provided. The findings section will outline the groups' potential as a platform for learning, supported by qualitative data excerpts, and provide a focused discussion of the potential impact upon group leaders. The study concludes with a discussion of the main findings, implications for policy and practice and recommendations for future research.

Literature review

Enterprise education research has been criticised for its fragmentation and a perceived disconnect from the theories and concepts of the education discipline (Fayolle, 2013). Yet, learning is pivotal to the entrepreneurship process at any stage, from nascent entrepreneurs to established practitioners (Smilor, 1997; Harrison and Leitch, 2005). The following literature reviews the pertinent learning theories from the entrepreneurship education discipline to provide the context for positioning discussion of student led enterprise groups; their roles and activities and their potential as a platform for entrepreneurial learning.

The phenomenon under investigation, student enterprise groups, can take multiple forms. At one extreme of the spectrum sits global grassroots groups known as the Knowmads who are not affiliated with a university but have a 'student body' who are educated in the fundamentals of entrepreneurship (Knowmads, 2012). Other more mainstream groups may be part of in-curriculum models whereby students undertake a prominent role in the shaping of their own education development as seen in various entrepreneurial programmes within the United States (Buller and Finkle, 2013) whilst others reside outside of the curriculum, initiated, implemented and led by students.

Prior studies, within a UK context, define student led enterprise groups as "*informal, non-accredited student-led societies or clubs whose main goal is to attract students who are interested in learning about enterprise and developing enterprising skills to either start their own businesses or to become more enterprising people*" (Pittaway *et al.*, 2011: 39). Such a definition may encompass purely student initiated enterprise groups (Edwards, 2001; Pittaway *et al.*, 2011; Pittaway *et al.*, 2015) including corporate initiated groups such as Enactus (Pittaway *et al.*, 2011; Pittaway *et al.*, 2015) and investment clubs (Pittaway *et al.*, 2011) the latter of

which operate primarily as a trading platform. This study focused data collection upon those groups that have been entirely formed and led by students in an attempt to understand how autonomous groups may either enable or disable learning opportunities.

Pittaway *et al*, (2011) definition does not articulate a specific role for the groups besides their attraction to students who are entrepreneurially motivated. The onus appears to be on the individual student and their contribution as opposed to what the group offers the student. Although, the group and the individual students within it have a symbiotic relationship and the students will contribute to group activities and direction, this study focuses on the groups' potential to contribute to individual learning. Indeed, these are nuances to consider which can affect the adopted research approach. Therefore the phenomenon under examination is groups that are:

“formalised groups initiated by students, led by students, for the purpose of fostering entrepreneurial learning, skills and activity among its members”

The circumstances at each HEI will be unique but Figure 1 is a conceptualisation, based upon a secondary data review of over 50 student led enterprise groups websites, of a common group stakeholder environment. Figure 1 highlights the various actors within this complex phenomenon.

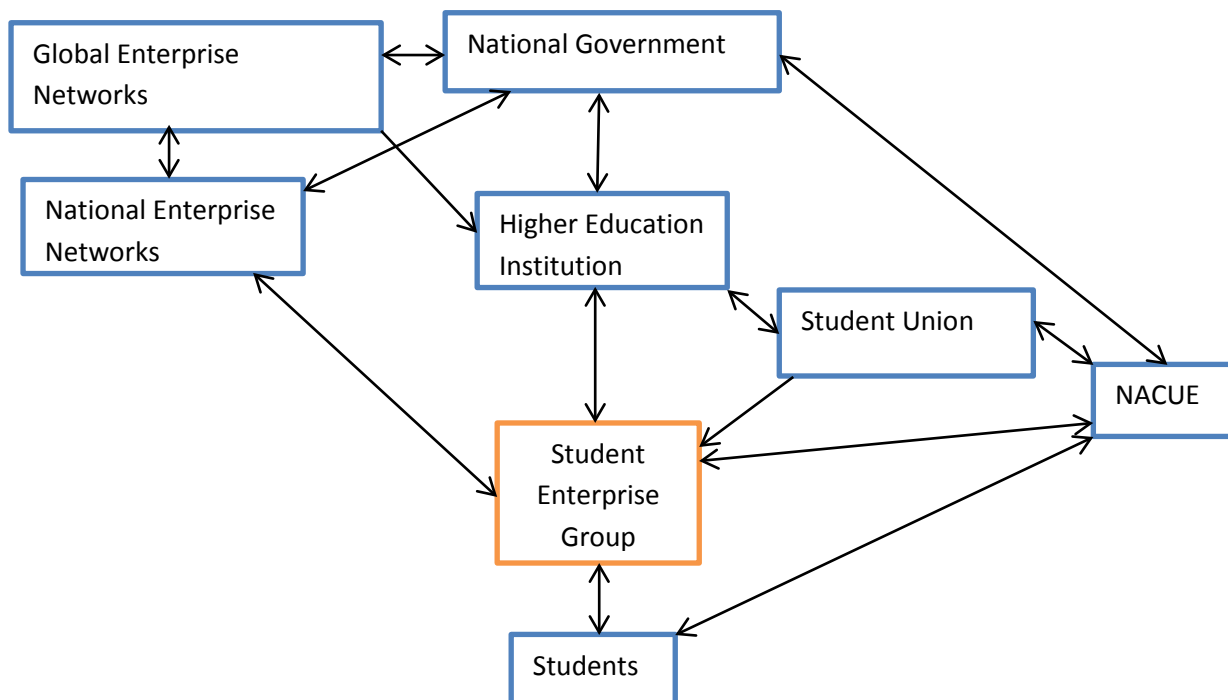


Figure 1: Stakeholder environment for a typical student enterprise group

From the literature review it appears that student enterprise groups are subject to numerous influences and work in collaboration with a range of internal and external stakeholders (NACUE, 2011; Preedy and Jones, 2015). In terms of the relationship with the university, student enterprise groups may regard themselves, or are considered to be, a stakeholder of the university itself (Lilischkis *et al*, 2015) and their interactions with the university affect the breadth and depth of their activities. NACUE is a prominent supporter of the groups by raising awareness of their activities and acting as a conduit between students, staff and policymakers (NACUE, 2011).

The typical governance and structure of the groups was explored to enable sufficient context to enquire about group roles and activities. The President typically governs the group supported by an elected Executive Committee. Membership size fluctuates annually and the organisation of group objectives and activities reflect the make-up of the membership. Many university groups exist within the administrative structure of the Student Union (SU) but recent trends has seen societies disaffiliate and set up separate companies, an example being the London Metropolitan group (NACUE, 2011).

Thus far empirical data on student led enterprise groups' roles, activities and contribution to entrepreneurial learning is limited (Pittaway *et al*, 2015). Prior studies suggest that student led enterprise groups may enhance entrepreneurial learning through their provision of opportunities for experiential learning (Pittaway and Cope, 2007a; Pittaway *et al*, 2011; Pittaway and Edwards, 2012) and enhancement of leadership, team working, and networking skills, broadly defined as 'enterprise skills' (Pittaway *et al*, 2011). Group development of enterprise skills was corroborated by NACUE (2013) who found that group members perceived membership benefits as: improved communication skills, leadership, team working, and problem solving capabilities. This study builds upon this literature to examine the group roles, activities and potential learning outcomes through a case study approach.

According to cognitivist and constructivist approaches, learning, within any discipline, is influenced by an individual's social context (Vygotsky, 1978; Harre, 1989; Pavlica *et al*, 1998; Wenger, 1998), whereby people learn from one another through observation and modelling of behaviour (Bandura, 1977). Entrepreneurial learning has been perceived as a social phenomenon rather a solely individual pursuit (Cope, 2001; Taylor and Thorpe, 2004; Cope, 2005). An individual's social context, such as their personal relationships, can influence the entrepreneurial learning process (Cope, 2005; Pittaway and Cope, 2007; Jones and Iredale, 2010) through social networks which may enable, or disable, an individual's access to information and resources (Starr and Macmillan, 1990; Dubini and Aldrich, 1991; Hanson, 1996, Taylor and Thorpe, 2004) and

influence their decision making (Cope, 2008; Thorp and Goldstein, 2010; Pittaway *et al*, 2011). Prior research has established that entrepreneurs often learn from peers (Taylor and Thorpe, 2004; Cope, 2005) seeking guidance of another whom they perceive to have a superior entrepreneurial understanding or ability. Moreover, they also partner with each other formally or informally thereby co-participating in a shared learning experience (Taylor and Thorpe, 2004; Binks *et al*, 2006; Lobler, 2006; Pittaway and Cope, 2007b; Pittaway and Thorpe, 2012). The collaborative nature of the entrepreneurial learning process would suggest that student led enterprise groups could be a suitable platform for enhancing students' entrepreneurial development alongside traditional curriculum models.

Enterprise and entrepreneurship education can be a difficult discipline to design and implement due its complexity and variability (Gibb, 2002; Mueller and Anderson, 2014). Educators face the challenge that they must meet prescribed academic standards and ensure students pass their assessments but also employ innovative teaching methods (Carey and Matlay, 2011; Pittaway and Edwards, 2012; European Commission, 2013). Subsequently, the enterprise curriculum is often geared towards 'through' approaches whereby skills and techniques are taught but the onus is on application and practice (Neck and Greene, 2011). Experiential learning opportunities whereby tutors act as facilitators to student learning are regarded as optimal (Lobler, 2006; Pittaway and Cope, 2007; Lilischkis *et al*, 2015) but can face challenges of bureaucratic constraints, large class sizes and inappropriate teaching spaces (Carey and Matlay, 2011; Henry, 2013).

Although Kolb's experiential learning model (Kolb, 1984) has been criticised for oversimplifying the complexity of the learning process through presenting it as a stepwise approach, the model has become particularly dominant within the entrepreneurial learning research in large part due to the practical nature of entrepreneurship (Wang and Chugh, 2014; Pittaway *et al*, 2015). With learning through doing having become a core component of enterprise education curriculum (Lobler, 2006; Neck and Greene, 2011), extracurricular enterprise activities have been embraced as important mechanisms for students to practice and experiment with their entrepreneurial skills (Pittaway *et al*, 2011; Rae *et al*, 2012; Pittaway *et al*, 2015). This research examines a facet of such extracurricular activities, enterprise groups that are led by students, to ascertain group roles and activities and how they may act as a platform for learning.

Prior studies in this area have collected data through mainly UK-US HE comparative studies (Pittaway *et al*, 2011; Pittaway *et al*, 2015). This study's originality lays in its narrowing of focus, utilising a case study research strategy, to gather rich in depth and contextualised data regarding specific groups' activities and their potential to contribute to entrepreneurial learning. A review of group leadership and the potential differences

compared to general membership learning and development is also lacking in the existing literature and is a component of this study. The following research question was therefore explored:

In what ways can student led enterprise groups contribute to entrepreneurial learning?

Methodology

A social constructionist paradigm, informed by the researcher's epistemological and ontological beliefs, was adopted that acknowledged the multiple variables that may influence an individual's entrepreneurial development, such as family, online sources and educational influences (Rae and Carswell, 2001; Davidsson and Honig, 2003; Rae, 2004). Entrepreneurial learning from a constructionist stance recognises the subjective nature of knowledge and the learning process (Wang and Chugh, 2014) with students' learning considered to be situated (Lave and Wenger, 1991; Biggs, 1999) and understood most effectively within individual contexts. The research was premised on the stance that each individual brings to the entrepreneurial learning process a learning history (Reuber and Fischer 1999; Cope, 2005; Politis, 2005) and levels of entrepreneurial experience (Harvey and Evans 1995) which are dynamic and constantly evolving (Cope, 2005).

Consequently, a case study methodology was deemed appropriate to explore the phenomenon within its particular context (Yin, 2014). Although, single institution case studies without a quantitative element may be limited in terms of generalizability (Eisenhardt, 1989; Meyer, 2001), the aim of the study was to explore the phenomenon within its real-life context acknowledging the subjective experiences of individuals (Eisenhardt, 1989; Meyer, 2001; Yin, 2014). The particular HEI that was chosen was known to the researcher whom had been informally observing the activities of student enterprise groups within that institution for two years prior to data collection. Secondary research, including review of groups' websites and publically available promotional material, provided the contextual understanding of the case, 8 in depth semi-structured interviews and a focus group enabled students to articulate their activities in their own words both as individuals and in discussions related to their peers. As data was collected over two academic years, viewpoints were gathered from two different groups which provided rich within case analysis but may also assist against researcher bias (Yin, 2014).

The researcher was aware that their position as a HEI staff member within the chosen case study institution may lead to concerns regarding subjectivity and neutrality (Charmaz, 2006; Dwyer and Buckle, 2009). Therefore, a reflexive approach was adopted through critical analysis of the researcher's potential influence

upon the data at each stage of the research process (Letherby *et al*, 2013). Using a reflective logbook, the researcher’s relationship with the case study institution and the research participants was reviewed to search for possible biases in the data collection and analysis processes. This process further encouraged lines of enquiry that were critical of the phenomenon, exploring the limitations of and challenges facing the groups, alongside their merits.

2013/2014 academic year

Prior to data collection, a series of documents (Table 1) with permission from the group leadership, were collected to provide factual information that would: enhance understanding of the phenomena, help in identifying the sample to be interviewed, and assist in designing interview topic guides.

Academic year 2013/14	Academic year 2014/15
Group website	Group website
Group social media pages, including Facebook, Twitter and YouTube	Group social media pages, including Facebook, Twitter and YouTube
Group’s yearly strategic plan	External promotional leaflet
Feedback report compiled by the President built upon data collected from members after events	Internal newsletters sent to members
Internal newsletters sent to members	

Table 1: Documents used to enhance understanding of group activity

Data was collected in academic year 2013/14 from the then group leadership and general membership. The intention in seeking interviews with group leaders specifically was to establish whether those individuals most heavily involved in the implementation and delivery of group activities would identify different types, or levels, of learning in relation to general members. The 2013/14 interviews were focused predominantly on the role and activities of the group historically and at that particular time and provided valuable contextual information for the design of data collection academic year 2014/15.

Qualitative sampling, rather than random sampling, was used to select a small group of individuals that would provide rich data for the study (Meyer, 2001). Consequently, the sample is not intended to be representative of the student population at that institution or more generally. Topics included: the role and activities of the group, the participants’ level of involvement and learning gains, and the challenges faced.

Participant	Gender	Student status	Course	Entrepreneurial experience	Membership status
1	Male	Final year International undergraduate	BA International Business	None	General member
2	Male	First year UK undergraduate	BA Business Studies	One start up	Incoming President
3	Male	First year UK undergraduate	BSc Maritime Business and Logistics	One start up	General member
4	Female	Final year UK undergraduate	BSc Events Management	One start up	General member
5	Male	Second year UK undergraduate	BA Business Enterprise	One start up	Outgoing President

Table 2: 2013/14 interview participants

Participant	Gender	Student status	Course	Entrepreneurial experience	Membership status
1	Male	Final year UK undergraduate	BSc Business Enterprise	One start up with (2) and (4)	Former co-President with (2)
2	Male	Final year UK undergraduate	BSc Business Enterprise	One start up with (1) and (4)	Former co-President with (1)
3	Male	Second year UK undergraduate	BSc Business Enterprise	Two start ups	President
4	Male	Final year UK undergraduate	BA Business Studies	One start up with (1) and (2)	Executive committee member

Table 3: 2013/14 Focus group participants

The focus group only included members in leadership roles and, similar to the interviews, topics included the role and activities of the group but also opportunities for both individual and group learning.

2014/2015 academic year

The topic guides were refined for the following academic year to move the focus away from roles and activities to specifically examining the potential the groups may have as a learning platform.

Participant	Gender	Student status	Course	Entrepreneurial experience	Membership status
1	Male	Second year International undergraduate	BSc Mechanical Design and Manufacturing	Two start ups	Incoming President
2	Male	Second year UK undergraduate	BA Business Studies	One start up with former Group member	Outgoing President
3	Male	Second year UK undergraduate	BA 3D Design	None	Executive committee member

Table 4; 2014/15 Interview participants

Students in leadership roles were interviewed separately rather than invited to a focus group as in the previous year. This was to enable them to discuss their learning experiences frankly, as interviewee feedback from the previous year found that a focus group format had actually hindered some aspects of student ability to express concerns they might have held about the group. Topics included: individual's entrepreneurial experience, motivations for joining the group, their perceptions of entrepreneurial learning and the influences upon their learning. The broad scope of the topic guide and the flexibility of a semi-structured interview enabled students the freedom to discuss multiple variables that may influence their entrepreneurial development (Rae and Carswell, 2001; Davidsson and Honig, 2003; Rae, 2004).

Throughout both academic years, the researcher participated in some of the group's activities such as attending student enterprise events and conferences and used these as an opportunity to build rapport with the participants but also to informally observe their activities. Although observation was not formalised as a data collection method, participation in, and observation of, these activities provided a richer understanding of group dynamics and strategic direction.

From the literature review, several themes had been identified as areas of enquiry and the coding of the first interview consisted of checking the data for these themes. This helped focus analysis by comparing empirical data with developed theory and arguably enhanced internal validity of the analysis process (Yin, 2014). All data was transcribed verbatim within three months of collection and included not only spoken words but pauses, hesitations, laughter and tone to record the context. Memos were taken during the interview of any codes that sprung to mind, observations regarding body language, and also the researcher's emotions and potential biases. These memos were kept separately to be mindful of the differences between what the interviewee said, and what the researcher may have perceived, enabling data to be effectively separated from commentary (Glaser and Strauss, 1967).

Manual coding consisted of formulation of a coding table to plot data and allow for common themes and repeat occurrences to become apparent. Open coding enabled initial generation of concepts from the data, axial coding developed and linked concepts together into groups and selective coding formalised links between codes into frameworks. Transcripts were read as a whole several times during the analysis process to enable immersion and familiarization (Ritchie and Spencer, 1994), and then further refinement made to the list of codes using the open coding technique. As the list of codes grew a process of selective coding begun to search for core categories, with the aim to identify the central ideas that are connected to other categories.

Findings

Exploring the activities of the case study group was straight forward as many of the group activities were advertised online, including; networking evenings, guest speakers, mentoring sessions, competitions and social events. The role of the group appeared to be closely aligned to the activities on offer, but also related to how members perceived the role of that group within their individual circumstances. It was expected that each participant would be unique in the knowledge, skills and experience that they brought to the group along with their motivations for engagement (Pittaway *et al*, 2011; Pittaway *et al*, 2015). The methodology did not attempt to divorce perceptions from context but sought to gain a contextual understanding while identifying commonalities and themes. Therefore findings will be presented under the following themes; experiential learning, skills development, signposting, social learning and leadership.

Experiential learning

The realities of entrepreneurship can be difficult to simulate in an educational environment, as the curriculum predominantly awards achievement, but there is a need to add uncertainty into educational programmes to replicate the circumstances in which a business is set up (Gartner and Vesper, 1994; Pittaway and Cope, 2007a). In the data, participants frequently mentioned the importance they placed upon experimenting with uncertainty and failure and a desire to undertake more opportunities while at university.

“Learning from mistakes, learning how to handle different situations, different people, different occasions. That’s something academia does not teach” (2014/15, Interviewee 1)

“The more you practice then the more you know what to do and what not to do. Experimentation is central” (2014/15, Interviewee 3).

Apparent in the data was students’ desire to learn from doing, “trial by error”, and a frustration with traditional curricula when didactic methods were used rather than inquiry based approaches.

“I’ve done entrepreneurship modules but I don’t really feel like you can learn much from them. It’s all this theory, what are the traits of an entrepreneur... how can you start a business... but I don’t think it necessarily teaches you. You have to put it into practice and learn from others. That’s why I sought out other activities and resources.” (2014/15, Interviewee 3)

However, student enterprise groups were not necessarily the only outlet, and sometimes not even considered the most appropriate outlet for experiential learning, with some students stating that their opportunities to learn from experimentation were solely limited to work on their own business ventures.

Skills development

'Interpersonal', 'communication', 'people' and 'enterprise' skills were all mentioned in the interviews with varying degrees of overlap in how the skills were perceived to be manifested. Participants felt that although opportunities for skills development were often made available within their course, the nature of group activities where you are "pushed in at the deep end" was perceived to accelerate skills development.

"[in the group] you get to learn skills that you wouldn't anywhere else in the university, especially networking skills" (2013/14, Interviewee 4)

"You learn to negotiate with businesses and investors. The main thing that I took from getting involved was better understanding people's needs, being good at assessing what people need and how to help them progress. And also team management, such as encouraging people to take on more responsibility" (2014/15, Interviewee 3)

The development of skills was closely linked to perceptions of enhanced employability. Employability concerns appear to be both a motivator for initial engagement and perceived outcome.

"I joined four different societies because when you are on that career path, you know you want to boost your CV as much as possible" (2014/15, Interviewee 2)

The prospect of CV improvement did appear to influence some students decision to join the group, and when asked about their plans upon graduation, several participants stated they would rather go into employment for a period to either gather experience for their venture or because they felt a need to save money first. This data supports findings from other studies whereby student propensity to start a business is stronger when forecasting three or more years after graduation (Siger *et al*, 2014). Although, this suggests group participation is not a clear cut route to business start-up, entrepreneurial intentions may evolve during group membership and an initial focus on employability can be replaced with a focus upon venture creation.

"I will try my best not to use by CV. I have two businesses now and I want to develop one fully once I finish university" (2014/15, Interviewee 2)

Signposting

The group's role in enhancing skills development and opportunities for experiential learning was not explicit in their marketing material, it appears that these were either unintended outcomes or not formally recognised by the group leadership. However, the group's signposting function was clearly recognised and members directed others to external business events and/or services or even arranged one-to-one business mentoring meetings on their behalf. The group leadership saw their role as 'ambassadors' for enterprise and entrepreneurship on campus and worked closely with the stakeholders as identified in Figure 1.

"I think because of the enterprise group I was tapped into a lot of the stuff and that probably pushed me into setting up my own business. I knew how to get the resources because I knew about it all, none of it seemed unrelated or new." (2013/14, Interviewee 4)

One participant when asked if they were aware of how to access business mentoring at the university noted they did not know but would approach the group if they required access:

"Before knowing about the group I couldn't find a central place that articulated all the different enterprise activities the university could offer to me" (2013/14, Focus group participant).

The case study HEI has an enterprise centre which connects university wide enterprise support and enterprise engaged staff in order to signpost students. However, the data could indicate that communication improvements are required between student enterprise groups and their stakeholders to encourage joined-up thinking and discourage duplication of effort (Preedy, 2015).

Social learning

Group activities are in the main centred around social rather than individual activity such as; conferences, social outings, mentoring sessions and networking opportunities which reflects prior research regarding typical group activities (Pittaway *et al.*, 2011; NACUE, 2011; NACUE, 2013; Pittaway *et al.*, 2015). Although social learning, through group activities and projects, is an important aspect of most entrepreneurship education courses (Pittaway and Edwards, 2012), student led enterprise groups arguably offer a platform for voluntary peer to peer learning that sits outside of the often politicised environment of in curricula group work and assessment (Cheng and Warren, 1999; Hillyard *et al.*, 2010).

"I think the more access to information you have and the more people you have to talk to about your idea then the better. It's about finding ways to mitigate the barriers you have in your mind. I had ideas but I was too scared to fail, but then it dawned on me after setting up the Group and talking to so many different people that you have nothing to lose." (2013/14, Interviewee 5)

Prior studies have highlighted the importance of the building and maintaining of networks; social capital (Putman, 2000) in enhancing entrepreneurial activities (Greve and Salaff, 2003; Cope et al., 2007), with the quantity and quality of an entrepreneur's network linked to levels of entrepreneurial effectiveness (Johannison et al., 2002; Greve and Salaff, 2003; Cope et al., 2007). These student groups provide students with a readily available network of likeminded people alongside links to wider networks that may become sources of knowledge, support and potential finance needed to set up or maintain their venture (Field, 2003; Greve and Salaff, 2003; Cope et al., 2007).

"The contacts that you make in the group, whether or not you know it at the time, you will probably know these people for the rest of your life. You can't start up a business and expect it to run on its own, you need people" (2014/15, Interviewee 3)

Identified in the data was a desire for students to network with others who are "different" and can "spark new ideas" but some students felt this was limited by their academic cohort regardless of what course they studied.

"Networking within your little class is hard as everyone is learning the same thing. Networking should be about meeting people from different fields and areas with new skills and approaches" (2014/15, Interviewee 1).

The group undertakes events that link students together across disciplines, creating inter-disciplinary networks bound by a shared interest in entrepreneurship that are utilised to find information, seek advice and mentors and collaborate on ideas. Participants also stated that their entrepreneurial thought processes were stimulated during such events as they could interact with a diverse range of individuals.

"Off the back of one of the group trips a business studies student got a robotics business partner, they set up a business and its going really well. They probably would never have met otherwise." (2013/14 Focus group participant)

Networking is an important aspect of entrepreneurial learning and development and students appear to be using the groups as a networking platform. The use of social media sites and online groups for networking,

both connected and unconnected to the group, also featured heavily in the data. However, it was noted that the majority of group members were from the Business School and this potentially hinders the opportunity for inter-disciplinary networks and inhibit individual student learning.

“Most people in the group are on business related courses. They are more regimented, less creative. I would like to increase the creativity levels within the group so people can apply ideas practically”
(2014/15, Interviewee 3).

Although, Business Schools have traditionally dominated the provision of enterprise education both in and outside of the curriculum (Carey and Matlay, 2011; Penaluna *et al.*, 2012; Lilischkis *et al.*, 2015) this can hinder opportunities for inter-disciplinary learning (Hannon, 2007; Thorp and Goldstein, 2010). It appears that students seek out student enterprise groups in order to meet a diverse range of contacts but are faced with a lack of member diversity.

The groups role in bringing together like-minded students with common goals, to support and nurture one another, encourages social processes of group working that may also act as an important basis for individual learning, as individuals “socially share” knowledge before reflecting and processing it themselves (Vygotsky, 1978). The social bonding and the friendships that formed between members was apparent with some participants acting as mentors for others with leadership members in particular often supporting others on an individual basis. All incoming and outgoing presidents provided examples of when they had emotionally supported other members of the group, often encouraging them to experiment with a business idea. It appears that the group has formed an entrepreneurial community akin to a ‘community of practice’ (Lave and Wenger, 1991).

Leadership

A key outcome of participation in the groups may reside in the development of entrepreneurial leadership orientations. Entrepreneurial leadership is premised in a human capital framework: as a social process through which relational learning is practiced (Leitch *et al.*, 2013). In their empirical research, Bagheri and Pihie (2010) demonstrated differential approaches to entrepreneurial leadership learning exhibited by participants. Some participants emphasised real life task completion as central to learning whilst others emphasised learning through social interaction, reflection and observation. In this sense there is a close link between the activities of the student enterprise groups and the development of a range of social and interpersonal competences which support the enactment of entrepreneurial leadership.

The influence that the leadership of a student enterprise group, usually a President supported by an executive committee, can have upon the activities and direction of the group has been noted in prior studies (Pittaway *et al.*, 2011). Those in leadership roles are well placed for enhanced entrepreneurial learning as a result of the responsibilities and opportunities they are exposed to (Pittaway *et al.*, 2011; Pittaway *et al.*, 2015). This was an emergent theme in the data.

“I think the leader has higher level thinking as a result... you develop a lot more than the general members, especially your organisation and monitoring skills” (2014/15, Interviewee 2)

“Being a President, hopefully it’s going to help me determine what sort of leader I want to be in the future and hone my people skills” (2015/16, Interviewee 1)

However, some members noted that being in a leadership role could be burdensome and the time spent organising activities could detract away from their own learning and development. The learning achieved from leadership roles is a potential area for further research.

Discussion

This study examined the role and activities of student led enterprise groups at UK HEIs and their potential as a learning platform. It was found that students perceived their main learning benefits to be; experiential learning opportunities, skills development, in particular networking skills, increased awareness of enterprise support and leadership orientation. The development of an entrepreneurial community was apparent and the emotional support between members alongside practical guidance was highly valued by members.

Group membership has an important role to play in encouraging networking opportunities and the building of social capital which has been closely linked in prior studies with enhanced entrepreneurial performance (Deakins and Freel, 1998; Field, 2003; Greve and Salaff, 2003). Aside from the groups, participants utilised several other sources to develop their knowledge such as online networks, their own businesses and stakeholders who interacted with the group (Figure 1). The results suggest a greater scope for student led groups to collaborate with industry practitioners thereby accessing a wider diversity of contacts and enabling stronger professional and personal networks.

When asked to describe their learning influences, respondents found it difficult to accurately define the source. Pittaway *et al* (2011) noted that student entrepreneurial learning accumulates and can be difficult to define

and pinpoint. This has implications for this study and future research - how to examine student group's contribution to entrepreneurial learning when the multiplicity of influencing variables are difficult to pinpoint, even by the students themselves? However, there were common themes during discussions of learning that aligned closely with both experiential (Kolb, 1984) and social learning theory (Bandura, 1977; Vygotsky, 1978).

There is often confusion in distinguishing enterprise, entrepreneurship and employability activities due to an overlap in aims and activities (Sewell and Pool, 2010; Rae *et al*, 2012; Henry, 2013) and this was reflected in the data with the terms being used interchangeably. In particular, skills development was perceived as important for assisting students with both their business ventures and enhancing their employability prospects which suggests that the groups offer a dual function of encouraging entrepreneurial activity but also preparing students for the graduate job market.

Conclusion

A case study approach challenges the notion that entrepreneurial learning is an individual pursuit (Taylor and Thorpe, 2004; Hamilton, 2011) and supports calls for more research on entrepreneurial learning within a social context (Cope, 2001; 2005). This study informs this limited literature on student enterprise groups (Pittaway *et al*, 2011; Pittaway *et al*, 2015) and provides fresh insight into the entrepreneurial learning processes of students, (Pittaway and Cope, 2007; Pittaway *et al.*, 2011; Pittaway *et al*, 2015).

For enterprise educators, particularly for those who believe that learning is rooted within an individual's context and are willing to adapt educational practice according to student feedback (Assor *et al.*, 2002; Reeve *et al.*, 2004), the study offers an enhanced understanding of how educators support student led learning activities. This study offers further insight into the resources and tools students are accessing to enhance their enterprise knowledge, skills and behaviours outside of the traditional curriculum. By encouraging students to engage with their intrinsic motivations for learning, engagement in enterprise education may be increased and ultimately maintained (Niemic and Ryan, 2009).

For policy, additional insight is provided into mechanisms for encouraging numbers of enterprising graduates; a perceived route to enhancing national competitiveness (Witty, 2013; BIS, 2014). Recent government reports have called for every UK HEI to have a student enterprise group but have recognised the difficulty in measuring their benefits to the student population (Young, 2014). This study provides empirical data on group roles, activities and potential as a platform for learning. This research informs the HEI sector regarding the

value of Entrepreneurship groups upon their student members in terms of enhancing both their employability and self-employability skills.

In terms of study limitations, the authors accept that the study had a small sample size and relied upon student perceptions of their own learning which is subjective. The study was also dominated by male full-time undergraduates, which is reflective of the gender bias within many UK student enterprise groups (NACUE, 2011; 2013), but underrepresentation of these groups within research only reinforces their marginalisation.

The operations of these student groups differs greatly from one HEI to another and crucial in researching these groups is recognition that activities are highly contextualised (Pittaway *et al.*, 2015) and each student joins the group with a different base of knowledge, skills and experience (Lave and Wenger, 1991; Pittaway *et al.*, 2011). Ultimately, this study was not intended to produce generalisable data but to enhance understanding of the phenomenon of student led enterprise groups; their role and activities and their potential as a learning platform.

References

- Assor, A., Kaplan, H. and Roth, G. (2002) Choice is good but relevance is excellent: autonomy- enhancing and suppressing teacher behaviours predicting students' engagement in schoolwork, *British Journal of Educational Psychology*, Vol 72, pp 261–278.
- Bagheri, A. and Pihiea, Z.A.L. (2010) Entrepreneurial Leadership Learning: In Search of Missing Links, *Procedia - Social and Behavioural Sciences*, Vol 7, pp 470–479.
- Bandura, A. (1977). *Social Learning Theory*. Prentice Hall: Englewood Cliffs, New Jersey.
- Bartkus, K.R., Nemelka, B., Nemelka, M. and Gardner, P. (2012) Clarifying the Meaning of Extracurricular Activity: A Literature Review of Definitions, *American Journal of Business Education*, Vol 5, No 6, pp 693–704.
- Biggs, J. (1999) *Teaching for quality learning at university*. Group for Research into Higher Education & Open University Press: Buckingham.
- Binks, M., Starkey, K. and Mahon, C.L. (2006). Entrepreneurship education and the business school, *Technology Analysis and Strategic Management*, Vol 18, No 1, pp 1–18.
- BIS. (2014) *British Invention: Global impact. The government's response to Sir Andrew Witty's Review of Universities and Growth*. BIS: London.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/291938/bis-14-540-government-response-witty-review-british-invention-global-impact.pdf
- Buller, P.F. and Finkle, T.A. (2013) The Hogan entrepreneurial leadership program: an innovative model of entrepreneurship education, *Journal of Entrepreneurship Education*, Vol 16, pp 113–132.
- Carey, C. and Matlay, H. (2011) Emergent issues in enterprise education: the educator's perspective, *Industry and Higher Education*, Vol. 25, No. 6, pp 441-450.
- Charmaz K. (2006) *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. Sage Publications: London.
- Cheng, W. and Warren, M. (1999) Peer teacher assessment of the oral and written tasks of a group project, *Assessment and Evaluation in Higher Education*, Vol 24, No 3, pp 301–314.

- Cope, J. (2001) *The entrepreneurial experience: Towards a dynamic learning perspective of entrepreneurship*. Unpublished PhD thesis, University of Lancaster.
- Cope, J. (2005) Toward a dynamic learning perspective of entrepreneurship, *Entrepreneurship Theory and Practice*, Vol 29, No 4, pp 373–397.
- Cope, J., Jack, S. and Rose, M.B. (2007) Social Capital and Entrepreneurship: An Introduction, *International Small Business Journal*, Vol 25, No 3, pp 213–219.
- Davidsson, P. and Honig, B. (2003) The role of social and human capital among nascent entrepreneurs, *Journal of Business Venturing*, Vol 18, No 3, pp 301–331.
- Deakins, D. and Freel, M. (1998) Entrepreneurial learning and the growth process in SMEs, *The Learning Organization*, Vol 5, No 3, pp 144–155.
- Dubini, P. and Aldrich, H. (1991) Personal and Extended Networks are Central to the Entrepreneurial Process, *Journal of Business Venturing*, Vol 6, pp 305-313.
- Dwyer, S. and Buckle, J. (2009) The Space between: On being an Insider-Outsider in Qualitative research, *International Journal of Qualitative Methods*, Vol 8, No 1, pp 54–63.
- Edwards, L.J. (2001) *Are e-clubs the answer to entrepreneurial learning?* WEI Working Paper series 17. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.197.8716&rep=rep1&type=pdf>.
- Eisenhardt, K.M. (1989) Building theories from case study research, *Academy of Management Review*, Vol 14, No 4, pp 532–550.
- European Commission. (2013). *Entrepreneurship education: a guide for educators*, Brussels http://ec.europa.eu/enterprise/policies/sme/promoting-entrepreneurship/files/education/entredu-manual-fv_en.pdf.
- Fayolle, A. (2013). Personal views on the future of entrepreneurship education, *Entrepreneurship & Regional Development*, Vol 25, No 7-8, pp 692–701.
- Field, J. (2003) *Social Capital*. Routledge: London.

Gartner, W.B. and Vesper, K.H. (1994) Experiments in Entrepreneurship, *Journal of Business Venturing*, Vol 9 No 3, pp 179–187.

Gibb, A. (2002) In pursuit of a new 'enterprise' and 'entrepreneurship' paradigm for learning: creative destruction, new values, new ways of doing things and new combinations of knowledge, *International Journal of Management Reviews*, Vol 4, No 3, pp 233–269.

Gibb, A.A. (2010), "Towards the entrepreneurial university", NCEE, Coventry. http://eulp.co.uk/wp-content/uploads/2013/11/towards_the_entrepreneurial_University.pdf.

Glaser, B.G. and Strauss, A.L. (1967) *The discovery of grounded theory: Strategies for qualitative research* Aldine de Gruyter, New York.

Greve, A. and Salaff, J.W. (2003) Social Networks and Entrepreneurship, *Entrepreneurship Theory and Practice*, Vol 28, No 1, pp 1–22.

Hamilton, E. (2011) Entrepreneurial learning in family business, *Journal of Small Business and Enterprise Development*, Vol 18, No 1, pp 8–26.

Hannon, P. (2007) Enterprise for all? The fragility of enterprise provision across England's HEIs, *Journal of Small Business and Enterprise Development*, Vol 14, No 2, pp 183–210.

Hanson, A. (1996) 'The search for a separate theory of adult learning: does anyone really need andragogy?' *Boundaries of Adult Learning*. Edwards, R., Hanson, A. and Raggatt, P. (Eds.) London and New York: Routledge in association with the Open University.

Harré, R. (1989). *Social construction of selves as a discursive practice*. Paper presented to LMMG, London, 23 May 1989.

Harrison, R.T. and Leitch, C.M. (2005) Entrepreneurial learning: Researching the Interface between Learning and the Entrepreneurial Context, *Entrepreneurship Theory and Practice*, Vol 29, No 4, pp 351–371.

Harvey, M. and Evans, R. (1995) Life after succession in the Family Business: is it really the end of the Problems?, *Family Business Review*, Vol. 8, No.1, pp. 3-16.

- Henry, C. (2013). Entrepreneurship education in HE: are policy makers expecting too much?, *Education and Training*, Vol 55, No 8, pp 836–848.
- Hillyard, C., Gillespie, D., and Littig, P. (2010). University students' attitudes about learning in small groups after frequent participation, *Active Learning in Higher Education*, Vol 11, No 1, pp 9-20.
- Johannison, B., Ramirez-Pasillas, M. and Karlsson, G. (2002) The institutional embeddedness of local inter-firm networks: a leverage for business creation, *Entrepreneurship and Regional Development*, Vol 14, No 4, pp 297–315.
- Jones, B. and Iredale, N. (2010) Enterprise education as pedagogy, *Education + Training*, Vol 62, No 1, pp 7–19.
- Jones, P., Jones, A., Skinner, H. and Packham, G. (2013) Embedding enterprise: a business school undergraduate course with an enterprise focus, *Industry & Higher Education*, Vol 27, No 3, pp 205–215.
- Knowmads. (2012). *Knowmads: Changing the Face of Education*. <http://www.knowmads.nl/wp-content/uploads/2013/01/Knowmads-ctfoe-webversion.pdf>.
- Kolb, D.A. (1984) *Experiential Learning*. Prentice Hall: Englewood Cliffs, NJ.
- Lave, J. and Wenger, E. (1991) *Situated learning: legitimate peripheral participation*. Cambridge University Press: Cambridge.
- Leitch, C.M., McMullan, C., and Harrison, R.T. (2013) The Development of Entrepreneurial Leadership: The Role of Human, Social and Institutional Capital', *British Journal of Management*, Vol 24, pp 347–366.
- Letherby, G., Scott, J. and Williams, M. (2013) *Objectivity and Subjectivity in Social Research*. Sage: London.
- Lilischkis, S., Volkmann, C., and Halbfas, B. (2015) *Supporting the Entrepreneurial Potential of Higher Education: Final Report*. European Commission. http://sephe.eu/fileadmin/sephe/documents/sephe_final-report_2015-06-30_v1.10.pdf
- Lobler, H. (2006) Learning Entrepreneurship from a Constructivist Perspective, *Technology Analysis and Strategic Management*, Vol 18, No 1, pp 19–38.

- Meyer, C.B. (2001) A Case in Case Study Methodology, *Field Methods*, Vol 13, No 4, pp 329–352.
- Milner, S., Cousins, W. and McGowan, I. (2016) Does All Work and No Play Make a Dull Graduate? Perceptions of Extra-curricular Activities and Employability, *Journal of Perspectives in Applied Academic Practice*, Vol 4, No 1, pp 13–18.
- Mueller, S. and Anderson, A. R., (2014). Understanding the entrepreneurial learning process and its impact on students' personal development: a European perspective, *International Journal of Management Education*, Vol. 12, No. 3, pp. 500 – 511.
- NACUE (National Association of College and University Entrepreneurs). (2013) *Group impact report 2013*. NACUE: London. <http://nacue.com/wp-content/uploads/2013/10/NACUE-Group-Impact-Report.pdf>.
- NACUE (2011) *The State of Student Enterprise*. NACUE: London. <http://nacue.com/wp-content/uploads/2013/04/State-of-Student-Enterprise-Report-2011-web.pdf>.
- Neck, H.M. and Greene, P.G. (2011) Entrepreneurship Education: Known Worlds and New Frontiers, *Journal of Small Business Management*, Vol 49, No 1, pp 55–70.
- Niemiec, C.P. and Ryan, R.M. (2009) 'Autonomy, competence, and relatedness in the classroom: applying self-determination theory to educational practice', *Theory and Research in Education*, Vol. 7, pp. 133-44.
- Pavlica, K. Holman, D. and Thorpe, R. (1998) The Manager as a Practical Author of Learning, *Career Development International*, Vol 3, No 7, pp 300–307.
- Penaluna, K., Penaluna, A. and Jones, C. (2012) The context of enterprise education: insights into current practices, *Industry and Higher Education*, Vol 26, No 3, pp 163–175.
- Pittaway, L. Gazzard, J. Shore, A and Williamson, T. (2015) Student clubs: experiences in entrepreneurial learning, *Entrepreneurship and Regional Development*, Vol 27, No 3-4, pp 127–153.
- Pittaway, L. Rodriguez-Falcon, E., Aiyegbayo, O. and King, A. (2011) The role of entrepreneurship clubs and societies in entrepreneurial learning, *International Small Business Journal*, Vol 29, No 1, pp 37–57.
- Pittaway, L. and Edwards, C. (2012) Assessment: examining practice in entrepreneurship education, *Education + Training* Vol 54, No 8/9, pp 778–800.

- Pittaway, L. and Thorpe, R. (2012) A framework for entrepreneurial learning: A tribute to Jason Cope, *Entrepreneurship and Regional Development: An International Journal*, Vol. 24, No. 9, pp. 837 – 859.
- Pittaway, L. (2009) The role of inquiry-based learning in entrepreneurship education, *Industry and Higher Education*, Vol 23, No 3, pp 153–162.
- Pittaway, L. and Cope, J. (2007a) Entrepreneurship education: A systematic review of the evidence, *International Small Business Journal*, Vol 25, No 5, pp 477–506.
- Pittaway, L. and Cope, J. (2007b) Simulating entrepreneurial learning; integrating experiential and collaborative approaches to learning, *Management Learning*, Vol 38, pp 211–233.
- Politis, D. (2005) The Process of Entrepreneurial Learning: A Conceptual Framework, *Entrepreneurship Theory and Practice*, Vol 29, No 4, pp 399–424.
- Preedy, S. (2015) An Evaluation of the extra-curricular support available to student entrepreneurs at Plymouth University. In Maas, G. and Jones, P. (eds.) *Systemic Entrepreneurship: Contemporary Issues and Case Studies*. Palgrave Pivot: United Kingdom.
- Preedy, S. and Jones, P. (2015) An investigation into university extra-curricular enterprise support provision, *Education + Training*, Vol 57, No 8/9, pp 992–1008.
- Putman, R. (2000) *Social Capital: Measurement and Consequences*. OECD: UK.
<http://www.oecd.org/innovation/research/1825848.pdf>
- QAA (Quality Assurance Agency). (2012) *Enterprise and entrepreneurship education. Guidance for UK higher education providers*. The Quality Assurance Agency for Higher Education: London.
<http://www.qaa.ac.uk/Publications/InformationAndGuidance/Documents/enterprise-guidance.pdf>.
- Rae, D. and Carswell, M. (2001) Towards a conceptual understanding of entrepreneurial learning, *Journal of Small Business and Enterprise Development*, Vol 8, No 2, pp 150–158.
- Rae, D. (2004) Practical theories from entrepreneurs' stories: discursive approaches to entrepreneurial learning, *Journal of Small Business and Enterprise Development*, Vol 11, No 2, pp 195–202.

- Rae, D., Martin, L., Antcliff, V. and Hannon, P. (2012) Enterprise and entrepreneurship in English Higher Education: 2010 and beyond, *Journal of Small Business and Enterprise Development*, Vol 19, No 3, pp 380–401.
- RBS (Royal Bank of Scotland). (2014) *The Future of Identifying Enterprising Students*. RBS: London.
<http://www.inspiringenterprise.rbs.com/sites/default/files/resources/rbsstudentreportsmall.compressed.pdf>.
- Reeve, J., Jang, H., Carrell, D., Jeon, S. and Barch, J. (2004) 'Enhancing students' engagement by increasing teachers' autonomy support', *Motivation and Emotion*, Vol 28, No 2, pp 147-169.
- Reuber, R.A. and Fischer, E.M. (1999) Understanding the Consequences of Founders' Experience, *Journal of Small Business Management*, Vol 37, No 2, pp 30-45.
- Ritchie, J. and Spencer, L. (1994) Qualitative data analysis for applied policy research in Bryman, A. and Burgess, R.G. [eds.] *Analyzing qualitative data*, pp 173-194.
- Sewell, P. and Pool, L. (2010) Moving from conceptual ambiguity to operational clarity, *Education + Training*, Vol 52, No 1, pp 89–94.
- Sieger, P., Fueglistaller, U. and Zellweger, T. (2014) *Student Entrepreneurship Across the Globe: A Look at Intentions and Activities*. St. Gallen: Swiss Research Institute of Small Business and Entrepreneurship at the University of St. Gallen (KMU-HSG).
http://www.guesssurvey.org/PDF/2013/GUESSS_INT_2013_REPORT.pdf.
- Smilor, R.W. (1997) Entrepreneurship: Reflections on a subversive activity, *Journal of Business Venturing*, Vol 12, pp 341–346.
- Starr, J., and MacMillan, I. C. (1990). Resource cooptation via social contracting: Resource acquisition strategies for new ventures, *Strategic Management Journal*, Vol 11, pp 79-92.
- Taylor, D. and Thorpe, R. (2004) Entrepreneurial learning: a process of co-participation, *Journal of Small Business and Enterprise Development*, Vol 11, No 2, pp 203–211.
- Thorp, H. and Goldstein, B. (2010) *Engines of Innovation: The Entrepreneurial University in the Twenty-First Century*. University of North Carolina Press: USA.

UUK (Universities UK). (2011) *Driving Economic Growth: Higher Education a core strategic asset to the UK*.
Universities UK: London.
<http://www.universitiesuk.ac.uk/highereducation/Documents/2011/DrivingEconomicGrowth.pdf>.

Vygotsky, L. S. (1978). *Mind in Group: The development of higher psychological processes*. Harvard University Press: Massachusetts, USA.

Wang, C.L. and Chugh, H. (2014) Entrepreneurial learning: Past research and future challenges, *International Journal of Management Reviews*, Vol. 16, No.1, pp. 24–61.

Watson, R. (2011). A rationale for the development of an extra-curricular employability award at a British university, *Research in Post-Compulsory Education*, Vol 16, No 3, pp 371-384.

Wenger, E. (1998) *Communities of Practice: Learning, Meaning and Identity*. Cambridge University Press: Cambridge, UK.

Wilson, T. (2012) *A Review of Business-University Collaboration*. BIS: London.

Witty, A. (2013) *Encouraging a British Invention Revolution: Sir Andrew Witty's Review of Universities and Growth*. BIS: London.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/249720/bis-13-1241-encouraging-a-british-invention-revolution-andrew-witty-review-R1.pdf.

Yin, R. (2014) *Case Study Research: Design and Methods*. 5th Edition. Sage: USA.

Young, Lord (2014) *Enterprise for all: The relevance of enterprise in education*. BIS: London.
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/338749/EnterpriseforAll-lowres-200614.pdf.