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<https://orcid.org/0000-0002-7318-2373> (2024) Extracurricular Enterprise and Entrepreneurship Activities in Higher Education: Understanding Entrepreneurial Competencies and Capabilities. In: Extracurricular Enterprise and Entrepreneurship Activity: A Global and Holistic Perspective. Contemporary Issues in Entrepreneurship Research, 19 . Emerald Publishing Limited, Leeds, pp. 81-95. ISBN 9781803823720**

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Official URL: <https://doi.org/10.1108/S2040-724620240000019006>  
DOI: <http://dx.doi.org/10.1108/S2040-724620240000019006>  
EPrint URI: <https://eprints.glos.ac.uk/id/eprint/13960>

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## **Extracurricular enterprise and entrepreneurship activities in HE; understanding entrepreneurial competencies and capabilities.**

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## **Abstract**

This chapter examines the role extracurricular activities have in developing Higher Education (HE) student's entrepreneurial competencies and capabilities. Specifically, this chapter examines; what type of students participate in extracurricular activities; why students choose to participate; what extracurricular activities offer in terms of entrepreneurial competency development and what extracurricular activities offer in terms of perceived entrepreneurial capability.

An electronic survey (e-survey) collected pre and post data from two groups; Group A, students participating in extracurricular enterprise and entrepreneurship activities (n=119); and Group B, a control group of students engaged in non-enterprise related extracurricular activities (n=72). Findings indicated that students in both groups were motivated to engage with extracurricular activities to enhance their skills, fulfil personal interests and enhance their employability. Utilising Morris, Webb, Fu and Singhal's (2013) entrepreneurial competencies list as a model, there were found to be increases in all but one competency (creativity) for Group A, yet for the control group, most competencies decreased with the exception of perseverance, effectual reasoning, and tolerance of ambiguity. Independent sample T-tests demonstrated that there was no significant difference in the final ratings of entrepreneurial capability between Group A and Group B, however, the degree of improvement for perceived entrepreneurial capability, pre to post, for those participating in enterprise activities was substantially higher than the control group. Finally, the identity of students participating in extracurricular enterprise and entrepreneurship activities was revealed to be more likely female, studying a programme within the Faculty of Business, and in the second or final stages of their programme.

This chapter demonstrates the value that extracurricular enterprise and entrepreneurship activities provide in a competency context for students and tasks enterprise and entrepreneurship educators with considering how to develop and signpost specific entrepreneurial competencies and capabilities through such activities.

**Key Words:** Enterprise Education; Extracurricular; Student; Competencies; Capability; Impact.

## Introduction

Extracurricular enterprise and entrepreneurship activities have been recognised as valuable in supplementing in class learning and stimulating student's enterprise knowledge, skills and experience (Neck & Corbett, 2018; Preedy, Jones, Maas & Duckett 2020; Watson, McGowan & Cunningham, 2018). In acknowledgment of the value extracurricular enterprise activities can bring to students, many universities have incorporated them into their wider extracurricular offer, in particular to focus on the practical component of enterprise and entrepreneurship education (EEE) (Barnard, Pittz & Vanevenhoven, 2018; Nabi, Liñán, Fayolle, Kreuger & Walmsley, 2017). This chapter examines HE students' participation in extracurricular enterprise and entrepreneurship activities, specifically focusing on what type of students participate in these activities, why they participate, and the impact of participation on their entrepreneurial competencies and capability.

Although globally, EEE is a recognised, and growing, area of the HE curriculum (Bae, Qian, Miao & Fiet, 2014; Nabi et al., 2017), it faces questioning regarding its utility and impact (Nabi et al., 2017). One common theme in the literature is the difficulty of defining and assessing the necessary traits required of an entrepreneur. More recently, in a move away from focusing solely upon specific 'traits' of entrepreneurial individuals, there has been a focus on EEE's role in areas such as competency development (Morris, Webb, Fu & Singhal, 2013; Bacigalupo, Kampylis, Punie & van den Brande, 2016). A competency approach to entrepreneurship is not new and has roots in the work of Boyatzis (1982) regarding managerial competencies and Bird's (1995) work on competencies for launching and growing a business. Competencies refer to "the knowledge, skills, attitudes, values, and behaviours that people need to successfully perform an activity" (Morris et al., 2013, p. 353) and is often built upon structuration theory, which emphasises the reciprocal interactions between individuals and their environments, suggesting that competencies can be enhanced, or conversely decline, over time. Consensus on which competencies are the most 'important' to develop has been difficult to reach (Morris et al., 2013).

The competency approach has seen as somewhat of an evolution, building upon the solid foundations of research into entrepreneurial traits, knowledge and skills to provide a framework for accelerating entrepreneurial outcomes. Man, Lau & Chan's (2002) work substantially moved along the direction of competency research by examining how an individual's attributes, skills and knowledge could be combined to categorise and examine their entrepreneurial competencies. Therefore, in the competency approach the trait perspective is not entirely left behind, traces of a trait perspective can be seen within competencies such as 'risk management' and 'tenacity' (Morris et al., 2013) and 'coping with ambiguity' (Bacigalupo et al., 2016).

One clear advantage of utilising a competency approach is that competencies can be measured against a given standard and therefore improved upon (Bird, 1995). The body of research into entrepreneurial competency, and what benefits competency development brings for entrepreneurial success is becoming established. Competencies are seen to be linked to specific outcomes for individuals, such as increased entrepreneurial intention (Sanchez, 2013), increased entrepreneurial self-efficacy (Liñán & Chen, 2009) and reinforcement of entrepreneurial social capital (Obschonka, Silbereisen & Schmitt-Rodermund, 2012). Entrepreneurial competency is seen to be important in encouraging successful EEE outcomes (Čopková, Gróf, Zausinová & Siničáková, 2023) and in turn EEE supports the development of entrepreneurial competencies (Hytti, Stenholm, Heinonen & Seikkula-Leino, 2010; Liñán & Chen, 2009). A better understanding of entrepreneurial competencies can also assist educators

in identifying specific educational needs within their cohorts and enhances pedagogical design (Čopková et al., 2023).

The European Commission's Entrepreneurship Competence Framework, EntreComp, identifies 15 competencies over three key areas (Into Action, Ideas and Opportunities and Resources) that encapsulate what it means to be entrepreneurial (Bacigalupo et al., 2016). It originates in earlier calls by the European Commission to increase European citizens entrepreneurial competence; identified as one of the eight competences for lifelong learning (European Parliament and Council, 2006). It has become particularly popular across Europe with its aim to address a lack of common understanding of what specific competencies entrepreneurial activity may involve by offering a comprehensive description of the knowledge, skills and attitudes that people need to be entrepreneurial and create financial, cultural or social value for others. It is intended to be used across sectors and settings and is therefore not restricted to EEE design and delivery. Such competence frameworks provide a reference point for educators, policymakers, and organisations involved in training and education at all levels and these types of frameworks are now prevalent in other areas such as the "Digital Competence Framework for Citizens" and "GreenComp" - reference frameworks for digital competence and sustainability competence, both also developed by the European Commission.

Entrepreneurial capability is also an important area of the EEE landscape and goes beyond individual competencies to include the capacity to create, identify, and exploit opportunities, as well as to manage and sustain a successful business. Much like the evolution of entrepreneurial behaviour theory, entrepreneurial capability perspectives increasingly recognise that entrepreneurial capabilities can be learned and improved upon. Entrepreneurial capability is often viewed in terms of resources, both external and internal to an individual or firm (Wilson & Martin, 2015). For the purposes of this research, entrepreneurial capability is viewed in terms of individual entrepreneurial capability as opposed to the entrepreneurial capability of firms. Therefore, in an EEE context, entrepreneurial capability refers to how well a student feels equipped to pursue entrepreneurial opportunities. This involves both external resource but also elements such as; prior knowledge, entrepreneurial intention, risk-taking propensity and other socio-cognitive factors (Campo-Tenera, Amar-Sepúlveda & Olivero-Vega, 2022; Wilson and Martin, 2015). The role that networks, in particular digital networks, play in enhancing an individual's ability to engage in effective entrepreneurial activity is a growing area within the literature (Cenamor, Parida & Wincent, 2019).

As research into extracurricular enterprise and entrepreneurship activities is an emergent area within the wider EEE research landscape and there is limited understanding of how extracurricular activities impact the formation of entrepreneurial competencies (Arranz, Ubierna, Arroyabe, Perez & de Arroyabe, 2017), the research was guided by the following questions:

1. What type of students participate in extracurricular activities?
2. Why do students choose to participate in extracurricular activities?
3. What do extracurricular activities offer to students in term of entrepreneurial competencies?
4. What do extracurricular activities offer to students in term of entrepreneurial capability?

## Methodology

This study used an e-survey to gather data from undergraduate students at a post-1992 UK university. The e-survey was administered to two distinct groups; those who participated in extracurricular enterprise and entrepreneurship activities (Group A) and those who participated in non-enterprise and entrepreneurship related extracurricular activities (Group B). A pre and post approach was utilised for both groups, however this differed for each group. Group A completed the online survey pre and post an extracurricular activity, whereas Group B completed the online survey pre and post the academic year to be inclusive of the broad range of extracurricular activities on offer throughout the academic year. Four datasets were therefore collected: Group A Pre (n= 119); Group A post (n = 59); Group B Pre(n=72); and Group B Post (n=31). This enabled comparisons both within (pre and post) and also between groups.

Both the pre and post online surveys contained open and closed questions to provide quantitative and qualitative data regarding; participants' motivations for engaging in the activity, their perceptions of entrepreneurial competency gains (or not), and perceptions of their own entrepreneurial capabilities. Each student was given a unique identifying number that enabled researchers to track students while ensuring anonymity.

A list of entrepreneurial competencies validated in the work of Morris et al., (2013) was utilised as a framework in this study. This list of competencies was generated via a three round Delphi study which is a highly formalised method of soliciting ideas and subsequently gaining consensus among individuals considered to be experts in the field of interest. The Delphi panel included 20 distinguished entrepreneurs, representing a range of industries, and 20 Professors of entrepreneurship with at least 10 years of EEE experience and research outputs. The 13 entrepreneurial competencies that were agreed upon by the panel were tested with a sample of HE students (pre and post testing) who were all involved in a six-week intensive enterprise programme provided consulting support to entrepreneurs with struggling businesses.

The types of extracurricular activities offered at the UK university sampled in this study differed markedly from those undertaken by participants in the Morris et al., (2013) study that specifically focused on enterprise and entrepreneurship activities. Therefore, the list of competencies was adapted accordingly to suit a more general list of activities being undertaken beyond enterprise and entrepreneurship. This included the removal of 'resource leveraging' and 'value creation' due to their strong association with venture creation. The final list utilised in this study was as follows (and in no particular priority order); effectual reasoning, networking, leadership, creativity, self-efficacy, interpersonal skills, resilience, locus of control, tolerance of ambiguity, alertness to opportunities, opportunity exploitation, increased confidence, perseverance and risk-taking. There is also considerable overlap between this list of 14 competencies and the 15 competencies utilised in the Entrecomp framework demonstrating alignment between this study and other research in the entrepreneurial competency area.

Participants were given a description of each competency to aid them in their understanding, for example language such as 'self-efficacy' is not necessarily commonly used by the student population, and so an explanation from the literature was provided. Participants would list what entrepreneurial competencies they expected to gain prior to engaging with an extracurricular activity and then after engagement list what competencies they feel they actually did gain thereby

measuring, from their perspective, whether the intervention (the extracurricular activity) had resulted in the gaining of specific competencies.

To measure entrepreneurial capability, participants were given a definition of entrepreneurial capability “defined as an ability to recognise and exploit opportunities” and a scale of 1-10 (1 = No ability to be entrepreneurially capable, 10 = Fully able to be entrepreneurially capable ) to self-rate their entrepreneurial capability at that point in time. All participants completed this rating before engagement in an extracurricular activity and then again afterwards thereby measuring whether the intervention (the extracurricular activity) had resulted in a positive or negative perception of their entrepreneurial capability.

Following data collection, survey data was analysed qualitatively and quantitatively with the assistance of appropriate analysis tools (NVIVO and SPSS). Descriptive statistics were utilised to ascertain the types of students who engaged with extracurricular activities and to measure pre and post scores for competencies and capabilities. Comparisons were made between Group A and B to ascertain the impact engagement in extracurricular enterprise and entrepreneurship activities had upon perceived entrepreneurial competency and capability development. Thematic analysis of the open text responses enabled greater understanding of the motivations of the students for engagement with extracurricular activity.

## **Findings and Discussion**

### *What type of students participate in extracurricular activities?*

To provide context on the types of extracurricular activities available at the sampled university. Typical activities participated in by Group A included; hack-a-thons, pitch practice and delivery sessions, speed networking, business plan competitions and guest speaker events. Group B activities included in order of popularity; music, arts or popular culture (i.e., DJ society, Viking Society), Sports (i.e. Kayaking, Archery), volunteering or charity (i.e. Amnesty International) or study-related activities (i.e. Marine Biology club).

Female respondents outnumbered male respondents for both Group A and Group B (see Table 1). As around 56% of the total student body at the sampled University were female at the time of data collection, these figures are roughly representative of the wider population. However, there was a slightly higher proportion of female students engaging in enterprise and entrepreneurship specific extracurricular activities than non-enterprise and entrepreneurship. This challenges the literature that suggests that males often have greater entrepreneurial intention levels than females (Bae et al., 2014) and that women can face barriers to engaging with EEE, due to lower self-efficacy and confidence rates, but also due to a prevalence of masculine discourse in relation to EEE activity (Jones & Warhaus, 2018; Westhead & Solesvik, 2016).

**[insert Table 1 here]**

In terms of ethnicity, Group A had a more diverse group of students. In 2016, the year of data collection, figures for the sampled University show that around 83% of the total student body was White (British or Other), and this proportion is reflected in Group B but not in Group A where

78% of respondents identified as White British, with the second-largest category being Asian or Asian-British Chinese attendees and only the third largest being 'Other White'. This suggests that extracurricular enterprise and entrepreneurship activities were slightly more inclusive to Black, Asian and minority ethnic (BAME) students.

In terms of student discipline area, the majority of Group A respondents (67%) were studying programmes within the Business School. This situation is not unusual, as several studies have identified the concentration of enterprise and entrepreneurship activities both in and extracurricular, within business schools (Preedy et al., 2020; Turner & Gianiodis, 2019). Students within a Business School are more likely to be exposed to EEE in their curriculum than in other schools, there it is likely that these students may be more likely to take an interest in extracurricular enterprise and entrepreneurship activities. However, it must be acknowledged that marketing and advertising of these activities may be primarily to Business School students (Preedy & Jones, 2015).

Students who participated in extracurricular enterprise activities were also more likely to be in the second (40%) or final/third year of their studies (34%). This may be due to students closer to graduation being more pre-occupied about their next steps including their employability prospects (Gedye & Beaumont, 2020; Nabi, Walmsley, Liñán, Akhtar & Neame, 2018).

#### *Why do students choose to participate in extracurricular activities?*

Group A were asked in the pre survey about their motivations to engage. Table 2 below summarises the key themes that emerged. Where answers cited multiple factors, the most prominent reason was coded (e.g., 'fun, engaging and great network opportunity' was judged to fit best under category 4, as two factors of enjoyment or socialising were mentioned vs one factor of generally positive experiences).

**[insert Table 2 here]**

Table 2 demonstrates the importance of skills development for many participants. Their engagement in extracurricular activity was closely linked to a desire to improve their interpersonal skills - the most common reason given for attendance was related to generalised life skills or self-development – motivation, inspiration, knowledge, understanding – and not specific business skills. Considering the emphasis across universities worldwide on 'soft' skills development (Cimatti, 2016) this shows a strategic focus for participants as opposed to extracurricular activities purely being for fun or socialising which might be the more traditional perspective of their function. Expectations were also consistently positive, students were optimistic about learning something new, even when they did not have a specific idea of what this might be.

These results also show that respondents consistently had career-focussed expectations, seeing enterprise and entrepreneurship activities as a route to enhancing their employability. Perhaps this also indicates high expectations of extracurricular activities, not only do they serve those considering entrepreneurship as their next step but also more generally assist students with their employability prospects regardless of discipline area, educational attainment or level of study.



There is recognition in the literature of an overlap between the skills, attributes and competencies of employability, and enterprise and entrepreneurship (Decker-Lange, 2021; QAA, 2018). Norton (2019) describes this as a 'blurring' with components of enterprise fundamental to the components of employability and vice versa. Walmsley, Decker-Lange and Lange (2022) noted 'substantial overlap' in the skills that are deemed critical to both entrepreneurship and employability with Decker-Lange (2021) describing enterprise, entrepreneurship and employability as the '3E's which are, closely related concepts within the HE sector (Beaumont, 2023).

The motivations Group B were also assessed in the survey (n=72), the most common, in order of frequency were:

- 1) Socialising, networking (e.g. 'a wider social network of friends', 'building more networks', 'friends/ wider social life', 'spending time with like-minded people')
- 2) Enjoyment and life skills (e.g. 'fun', 'personal development', 'laughs', 'discipline')
- 3) Health (e.g. 'increased fitness', 'healthy life', 'relieve stress and keep fit and healthy')
- 4) Career and business skills (e.g. 'get some idea about opportunities after studies', 'additions to my CV and further experience and skills', 'qualifications in certificate form')
- 5) Studies (e.g. 'Network to gain further knowledge. Also like-minded people who may help with my own degree')
- 6) Other (e.g. a spiritual or niche interest benefit, such as becoming more involved in a religion or improving at skiing)

Despite the simplicity that Table 2 and the above list imply, for both Group A and B, differing motivations were often intertwined. Participants utilised the open text response boxes to discuss multiple motivations in tandem seeing links between the social and professional parts of their development. However, for Group B, there appeared to be a stronger focus on socialising, generalised life skills or physical fitness. Surprisingly, in both groups, improving study skills or gaining university-related benefits was barely mentioned, suggesting participants did not see extracurricular activities as a platform for these academic gains. The clearest commonality between the two groups can be seen regarding an employability focus with Group B more explicit in this motivation including statements about enhancing their CV through extracurricular activity engagement or identifying specific activities that may assist them towards industry/professional level certification.

#### *What do extracurricular activities offer to students in terms of entrepreneurial competencies?*

Students in all four datasets were asked to identify which out of the competencies based on the list modelled on Morris *et al.* (2013), they expected to gain (which provided a rationale for engagement or competency gap coverage). Upon completion they were asked what competencies they perceived they had actually gained. An additional option of 'Other' was provided for participants who felt the competency list provided was not exhaustive and to help identify the value added from extracurricular activities. However, responses for this were few and have been discounted as answers were around cognitive development rather than competencies. Figures 1 a-c illustrate the percentage of total respondents (Group A and Group B) who rated themselves as expecting to possess (pre) and then possessing (post) a particular competency.

**[Insert Figure 1a here]**

**[Insert Figure 1b here]**

**[Insert Figure 1c here]**

For some of the competencies, there were particularly high starting expectations for both groups (i.e., Networking) and for other competencies much lower starting expectations (i.e. Locus of control). There were marked differences in starting expectations between Group A and Group B for specific competencies. For 'Resilience', only 7.1% of Group A thought this competency would be developed compared with 43.8% of Group B. For 'Increased Confidence', only 32.1% of Group A thought this would be developed compared with 85.9% of Group B. Overall, Group A were more cautious in what they expected to develop.

For all competencies, bar 'creativity', Group A perceived an improvement in their entrepreneurial competencies. However, for Group B, ten of the fifteen competencies decreased, with several rather dramatically, while only five increased, and these only slightly. The slighter increases seen in Group B was perhaps unsurprising considering the initial higher expectations.

For Group A, particularly large gains were seen in the entrepreneurial competencies of Resilience (7.1% to 44.8%) and Perseverance (13.4% to 58.6%). The only category where a decrease was seen over time was Creativity (34.8% to 20.7%). These findings suggest that extracurricular enterprise and entrepreneurship activities are a more appropriate platform for entrepreneurial competency development than non-enterprise and entrepreneurship extracurricular activities, although it is possible for some entrepreneurial competencies to be developed through engagement in non-enterprise and entrepreneurship extracurricular activity.

#### *What do extracurricular activities offer to students in terms of entrepreneurial capability?*

All participants were asked to rate their perceived entrepreneurial capability prior to engagement in extracurricular activity and again afterwards. The scale was 0 -10 with 0 indicating the lowest level of entrepreneurial capability and 10 the highest.

For Group B, the mean rating was 7.01 in the pre survey (n=72) with a concentration of responses in the ratings of 5, 6 and 7. Considering none of the participants were studying EEE, nor were engaged in any extracurricular enterprise and entrepreneurship activities, this was a particularly positive initial self-perception of their entrepreneurial capability. In the post survey (n=31), the mean had shifted slightly higher to 7.8 with responses concentrated in the ratings of 7 and 8. There was also an elimination of the extreme lower ratings in the results, none of the post survey participants rated themselves 1 or 2 further indicating an increased positive self-perception of entrepreneurial capability as a result of engaging in extracurricular activity.

By comparison, the mean rating by Group A in the pre-survey results (n= 117) was lower, 6.55 compared to 7.01. Ratings were concentrated around the numbers 5 and 6 with a higher proportion, than Group B, rating themselves in the lowest categories, and very few rating

themselves in the highest categories. This follows the pattern of the earlier competency results where Group A appeared to be more cautious in their ratings than Group B. The mean improved for Group A between pre and post survey, from 6.55 to 7.36 indicating that perception of their entrepreneurial capabilities was improved by attending enterprise and entrepreneurship extracurricular activities. However, Group B still rated themselves slightly higher (7.87 vs 7.36).

Independent sample T-test showed that there was no significant difference in the final ratings between Group A and B ( $P = 0.240$ , 2-tailed,  $df=73$ ). The difference in ratings between these two groups before they attended any extracurricular events was even less significant ( $P = 0.115$ , 2-tailed,  $df = 187$ ). There were, however, significant differences between the pre and post outcomes within each group; Group B ( $P = 0.047$ , 2-tailed,  $df = 64$ ), Group A ( $P = 0.013$ , 2-tailed,  $df = 159$ ).

Thus, although Group A still ended with a slightly lower score when reflecting on their entrepreneurial capabilities, their degree of improvement across capabilities was significantly higher. This is a key point to note, as it means extracurricular enterprise and entrepreneurship activities increased participants' rating from baseline more than other extracurricular activities, even if they did not produce a significantly higher final rating.

## **Summary and Implications for Practice**

In conclusion this study has shown that students engaged in extracurricular enterprise and entrepreneurship activities are more likely to be female, from a BAME group, studying a programme within the Business School and in the second or final stages of their programme. Those engaged in enterprise and entrepreneurship extracurricular activities tended to have a soft skills and employability focus and expectation of the extracurricular activities they engaged in. In comparison, the motivations of those not engaged in enterprise and entrepreneurship activities were often more related to socialising, generalised life skills or physical fitness but showed commonality in a focus on employability also.

Group A saw improvements from Pre to Post in their rating of all competencies, bar 'creativity'. Whereas Group B saw a decrease in ten of the fifteen competencies, several rather dramatically highlighting the significance in improving entrepreneurial competencies through engagement in extracurricular enterprise and entrepreneurship activities. Finally, the mean rating of entrepreneurial capability improved between Group A Pre and Post results. However, Group B participants still rated themselves more highly (7.87 vs 7.36). However, Group A started at a lower self-perceived rating of entrepreneurial capability and increased much more. Given that several of Group B participants rated themselves very highly in both cases, this may point to a more realistic view, before and after, amongst students drawn to enterprise and entrepreneurship activities, as well as a greater overall impact of the events. After all, if they are engaged in enterprise and entrepreneurship activities, they perhaps have a better understanding of entrepreneurial capability, leading to a more realistic, albeit lower, rating.

There are implications for practice regarding the type of student extracurricular activities that may attract and the benefits that participants draw from participation. Within this study, extracurricular enterprise and entrepreneurship activities attracted a large proportion of students from Business disciplines. This has implications for enterprise and entrepreneurship educators in considering whether they market to and deliver EEE to students from a diverse range of discipline areas. Great strides have been made in this area in recent years with an increased focus on

interdisciplinary approaches to EEE within universities. However, the extent to which the advances within interdisciplinary EEE curricula activity has translated to the extracurricular arena is debated (Preedy et al., 2020).

Regarding competencies, offering a framework for students to understand what the gains are from participation in EEE appears to be beneficial. It is also a useful evaluative tool for educators and universities to understand better the impact that both enterprise and entrepreneurship and non-enterprise and entrepreneurship extracurricular activities have for participants. Considering the threat these activities face in terms of funding and resource (Preedy & Jones, 2015), being able to demonstrate measurable impact such as competency development offers an evidence-based tool to justifying such activities existence. One cautionary note in these findings could be the students' own recognition of competencies. Volumes of education theory articles have been written on the difficulties students experience in recognising their own skills and in applying them in differing contexts – and this is known to impact on students' understanding of concepts like 'graduate attributes' and 'employability' too. Likewise, experts in a field – entrepreneurship included - are known to perceive the skills and knowledge of their field differently to a novice. Therefore, enterprise and entrepreneurship educators may also benefit from a greater understanding and more targeted signposting of the competencies that can be developed through extracurricular activities to alleviate such difficulties.

## **Further Research**

There are several further areas to explore in this developing research area. Previous literature and this study focus on single institutions and therefore, going forward, a multi-institutional study, allowing comparisons across the HE sector, would be advantageous. A qualitative methodology would also allow for a deeper exploration of students' perceptions and understandings of their competencies. The inclusion of interviews with enterprise and entrepreneurship educators would also provide a comparison between intended delivery (by educators) and perceived impact (on the students). This study was completed prior to the widespread uptake of Entrecomp which has since become a key competency framework for EEE across Europe. Although the competencies chosen to examine in this study have overlap with the competencies listed in Entrecomp, further research examining the impact of extracurricular activities utilising Entrecomp as the specified framework for measurement would be of interest.

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