

A CRITICAL EXAMINATION OF APPROACHES TO
EMBEDDING ENTERPRISE AND ENTREPRENEURSHIP
IN HIGHER EDUCATION CURRICULA: TOWARDS AN
UBIQUITOUS PARADIGM

TRACK DINNING

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Publications

Paper 1

Dispelling the Myth of How to Develop Enterprise/Entrepreneurship Skills in University Students: A Staff Perception Study

Paper 2

Embedding employability and enterprise skills in sport degrees through a focussed work-based project; a student and employer viewpoint.

Paper 3

Preparing sport graduates for employment: satisfying employers expectations, achieving positive outcomes

Paper 4

Assessment of Entrepreneurship in Higher Education: An evaluation of current practices and proposals for increasing authenticity

Paper 5

Articulating entrepreneurial competencies in the undergraduate curricular

Glossary of terms

QAA	Quality Assurance Agencies. The UK's quality body for Higher Education
CETL	Centre of Excellence in Teaching and Learning
EASM	European Association of Sport Management
Employability	Employability refers to the potential a graduate has for obtaining, and succeeding in, graduate-level positions (Yorke & Knight, 2006)
Enterprise	The generation and application of ideas, which are set within practical situations during a project or undertaking. This is a generic concept that can be applied across all areas of education and professional life (QAA, 2018)
Entrepreneurship	The application of enterprise behaviours, attributes and competencies into the creation of cultural, social or economic value. This can, but does not exclusively, lead to venture creation (QAA, 2018)
EntreComp	The Entrepreneurship Competence Framework
EHRC	Equality and Human Rights Commission
HEFCE	Higher Education Funding Council for England
HE	Higher Education
NCGE	National Council for Graduate Entrepreneurship

Abstract

This PhD by published works consists of five sole authored papers and this accompanying commentary, which together critically examine approaches to enterprise and entrepreneurship within Higher Education (HE) and articulate the creation and interpretation of new knowledge. Taking a broad perspective of student, academics and employers the commentary outlines two key themes, language associated with enterprise, entrepreneurship, methods, and approaches for integrating enterprise and entrepreneurship into the higher education curriculum. The theme of language can be found across four of the five papers, whilst the theme of methods and approaches is consistent across all five.

The works are informed by a number of complementary theoretical perspectives, related to enterprise skills (Gibb, 2002), employability skills (Yorke & Knight, 2006), teaching pedagogic approaches (Gibb & Price 2014) and more recently the EntreComp framework (Bacigalupo et al., 2016) which were used to inform the questionnaires and interview questions across the published work.

The originality of the work is demonstrated throughout, and overall the thesis offers five contributions to the research and practice in this field of study. Firstly, the work highlights a mismatch between student and employer perceptions of how skills are applied in the workplace and the resultant issues this causes (paper 2). Secondly, it offers an exploration, through the employer's voice, of a graduate mind-set based on skills, behaviours and attitudes, and offers an original framework that illustrates in visual form the integration of skills and personal qualities expected by employers (paper 3). Thirdly, it proposes an original articulation of entrepreneurship assessment with level of authenticity mapped against ease of implementation (paper 4). Fourthly, the EntreComp framework (Bacigalupo et al., 2016) is explored as a means of supporting curriculum development in relation to enterprise and entrepreneurship (paper 5). Finally two of the studies are set in the sport landscape, which is an under-researched area in this field (Paper 2 and 3). Each paper offers a contribution to the literature, which is specifically detailed in the individual paper overview reviews. This commentary concludes with a review of the significance of the work, which includes original perspectives on how to engage more staff in embedding enterprise and entrepreneurship.

This new approach is based on the development of entrepreneurial competencies through authentic and innovative pedagogy, and argues that enterprise and entrepreneurship could be embraced more widely at undergraduate level with no need for radical change in existing practice. The research included in this thesis represents a personal exploration into how to support the development of enterprising graduates, which is fast becoming vital to the workplace (Rae, 2007a). As a sector, HE needs to break down the barriers through this type of evidence-based research and through working with staff and students (potentially by stealth) to develop knowledge, methods and process in relation to enterprise in its widest sense.

1.0 Introduction

The PhD submission consists of five sole authored articles published in peer-reviewed journals between 2015-2019, although the start point of the research goes back much further to the LJMU Centre of Excellence in Teaching and Learning (CETL). Established as one of the 74 HEFCE funded CETL's in 2006, LJMU's Centre for Excellence had a focus on Leadership and Professional Learning across three themes of employability, leadership and enterprise. Working within the CETL at LJMU, I was tasked with the role of 'developing students as entrepreneurs'. At that time enterprise education was seen as a growth area in universities (Rae, 2007) with entrepreneurial skills being recognised as a way to drive the economy growth and job creation (Matlay, 2006). In addition, research into how enterprise and entrepreneurship could be taught was already being addressed in the literature (Gibb 2002; Dollinger 2003; Hytti & Gorman 2004) although with little consensus.

Therefore, throughout the 5 years of the CETL and working from a position outside the curriculum, I developed and ran bespoke enterprise sessions across a range of disciplines within my faculty and set up a pipeline of student business ideas through to the central university's Centre of Entrepreneurship. As evidence of the impact of my work, in 2011, I was highly commended by Enterprise Educators UK for my work in embedding enterprise activity across a faculty and reaching over 900 students, since this date, I have reached a further 1000 students each year. My approach to teaching was that of experiential and active learning, it is not disputed that experiential and active learning is seen to promote the development of enterprise and entrepreneurial skills and competencies in students (Gibb 2002; Pittaway & Cope 2007; Rae 2007a). However, scholarship in this area is more prevalent within the Business and Management disciplines, through the use of extensive literature reviews and reporting academic or students' perceptions. There appears to be little research reporting on the perspective employers or in the area of sport. Therefore, the published works builds on the existing research and offers a contribution within the discipline of sport, including the employers' perception.

My observation was that staff seemed keen to let me take a session and report that they had enterprise within their curriculum. However, they were less likely to want to take any ownership of it, so this was something I needed to address if enterprise was going to be

embedded across programmes. It was a voyage of discovery, exploring literature, attending workshops, and through this, I had found my passion and my niche. One of my first publications, 'Successes and Challenges of Developing Entrepreneurial Skills within the Curriculum in Higher Education', published in the peer-reviewed LJMU Innovations in Practice Journal, was a reflection on my achievements throughout the CETL project (Dinning, 2013).

The importance of this field of study has continued to emerge through the literature over the past 10 years. Higher education institutions embrace it as a way to empower individuals to transform and become better graduates and entrepreneurs (Warhuus et al., 2017) and as a means to develop the entrepreneurial skills and mindset (Gibb, 2002; Jones, Matley and Martiz, 2012) which are so often coveted by graduate employers (Jackson & Chapman, 2009). Yet success at my institution, seemed to be being measured by the number of businesses that were set up and not linked to the development of skills or employability. I found myself contemplating the development of entrepreneurial skills and mind-set being far more important for employability than the development of entrepreneurs.

Anecdotally, I found the language associated with enterprise/entrepreneurship confusing and a possible barrier to the lack of staff enthusiasm for enterprise. The terminology across the literature still remains debatable (Amhed & Seymour 2008; Bridge 2017) and clearly needs to be clarified with terms such as enterprise, entrepreneurship, enterprise education and entrepreneurship education all used interchangeably (Jones & Iredale 2010; Mwasalwiba 2010; Bridge, 2017). In a recent paper, Bridge (2017) questions the meaning of entrepreneurship in entrepreneurship education. He argues that whilst entrepreneurship can still have many connotations it can be split into two categories 'Enterprise for New Creation' with a focus on start-ups and business and 'Enterprise for Life' which has a broader focus on being more enterprising. The latter being associated with a set of skills, attributes that allow an individual to be innovative and make a difference in the work place. This 'Enterprise for Life' ideology resonates with me, as universities are a place for students to develop life skills, including enterprise, and this idea maybe a way to reduce the confusion over the language for academic staff. Another complexity is the link to employability. There is a growth in the body of literature that connects enterprise with employability (Moreland 2006; Rae 2007a), Langston (2011) as part of her work for the Scottish Colleges proposes a model that links employability capacity, entrepreneurial capacity resulting in an enterprising mind-set. Yet

despite this very clear link emerging, students are known to disassociate with the term ‘entrepreneurship’ (Edwards & Muir 2012) and from my findings I would suggest staff are too (Dinning, 2019).

This connecting narrative draws together my published works and takes a very broad look at what enterprise/entrepreneurship skills and competencies are in the context of an undergraduate curriculum and how these can be developed across teaching, assessment and practice-based experiences. In addition, the published works add to the debate on the understanding of the language enterprise and entrepreneurship. The works draw upon perceptions of academics, student and external stakeholders in enterprise/entrepreneurship from various disciplines. It starts to explore how enterprise/entrepreneurship would be best placed within an undergraduate programme of study and in curriculum design. Table 1 is a summary of the 5 published works that are being submitting as part of this PhD by publication. All papers have been peer reviewed which helped shape the focus on each paper. Throughout this document, reference will be made to each of these papers, so each has been given a shortened title.

Table 1: Publications

Article title	Referred to in text as
Dinning, T. (2015). Dispelling the Myth of How to Develop Enterprise/ Entrepreneurship Skills in University Students: A Staff Perception Study. <i>Creative Education</i> , 6, 1584-1596.	paper 1
Dinning, T. (2017a). Embedding employability and enterprise skills in sport degrees through a focussed work - based project; a student and employer viewpoint. <i>Cogent Education</i> , 4(1), 1-14.	paper 2
Dinning, T. (2017b). Preparing sport graduates for employment: satisfying employers expectations. <i>Higher Education Skills and Work-based learning</i> , 7(4), 354 – 368.	paper 3
Dinning, T. (2018). Assessment of Entrepreneurship in Higher Education: An evaluation of current practices and proposals for increasing authenticity. <i>Compass, Journal of Teaching and Learning</i> , 11(2), 1- 16.	paper 4
Dinning, T (2019). Articulating entrepreneurial competencies in the undergraduate curricular, <i>Education and Training</i> , 16(4), 432-444.	paper 5

2.0 Background: Interest in the topic and development as a researcher

This section is to outline my own personal evolution as a practitioner researcher and develop the autobiographical context for my research portfolio. As a practitioner researcher in the area of enterprise it has always been my intention to explore how my own practice can be developed to bring about a student experience that fosters the development of enterprise and entrepreneurship skills and competencies.

Undertaking this work has allowed me to develop a greater understanding of teaching and learning in the field of enterprise. As part of my own professional development when working in the CETL, I was exposed to various works by Yorke and Knight from early 2000, relating to employability. I also attended an 18-month Enterprise Educators programme where I developed and grew as a lecturer, educator and researcher. As part of this programme I was connected to some founding work by Allan Gibb, in particular his work on entrepreneurial models for curriculum development (Gibb, 2002) where he offers a whole programmes approach model to entrepreneurship. Additionally, the work of the National Council for Enterprise (NCEE) formally the National Council for Graduate Enterprise (NCGE), who produced a compendium of enterprise pedagogies, that focussed on active learning and development of skills, attitudes and behaviours as outlined by Gibb (2002). It was these experiences and research that I used to develop my teaching material at the start of the CETL.

By the end of the CETL in 2011, I was starting to become aware that parachuting in to programmes to do a one-off session was not the solution to developing students as entrepreneurs. Whilst the students perhaps understood the language more, I was by no means inspiring them to develop a business or even take some of their project ideas forwards. Therefore, I turned my attention to skills and competencies expected of graduates to not only set up and run a business but also be a valuable asset to someone else's business and society. I found that in taking an active and experiential learning approach to my teaching, students were being given the opportunity to develop such skills and competencies. What was also apparent was the many of my colleagues, not identifying themselves as enterprise educator, were teaching in similar ways. This led me to consider that developing the skills, and competencies associated with enterprise should not be the sole responsibility of one person or an individual module and if planned correctly could be something done across a whole

programme by all staff. This was the contribution I set out to make, firstly across my own programme and school, but then across the university and beyond.

So, I set out to explore this, the result was not only the motivation to start paper 1, but also the impetus for my PhD by published works. This was the catalyst for an intense period of research where I undertook original research and completely immersed myself in the literature, the result of which is this this submission.

From a position of working slightly outside the curriculum within the CETL, I discovered my love of teaching and supporting learning and decided this was to be my path. I was already teaching sessional classes and when a full-time academic role became available, I jumped at the chance. I was now in a position to impact more directly with my own students whilst also influencing others in relation to enterprise education and undertaking research in the area. The starting point was developing 'live projects' with students, something I had become a strong advocate of during the CETL. There are many documented guises of such learning, from lengthy placements (Huq & Gilbert, 2013), use of problem-based learning (Tan & Ng, 2006; Wichard & Otting, 2015) project-based work using external agents (Huq & Gilbert, 2013). However, all have one thing in common, the approach is active and experiential for students, which are central to the development of enterprise and entrepreneurial skills and competencies (Gibb, 2002; Pittaway & Cope, 2007; Rae, 2007a). Therefore, I was keen to find out what the students thought of skill and competencies development associated with an experiential-type module I had developed using employers as hosts and this was to be the motivation for paper 2.

With that initial passion and commitment to these published works born from my personal experiences of working with staff and students in the CETL and ideas of research for my first two papers, I decided that I would prefer my subsequent papers for this thesis to take a broader view of enterprise from different perspectives (students, staff, employers) within different contexts (teaching, assessment, external experience). Therefore paper 3 focuses on employer's perceptions of graduate skills/competencies and paper 4 on the academic perspective of assessment. At this early point in my research I was undecided about my final paper but was confident, it would emerge as I went through researching for the other four papers

My research journey has allowed me to not only develop my ideas in the field of enterprise and entrepreneurship skills and competencies, but also develop my understanding of qualitative approaches to research, as my Masters research had adopted a scientific quantitative approach. For the first paper I adopted a mixed methods approach, however, with 80% of the data collected being quantitative I soon recognised that I needed to shift to a qualitative paradigm as I needed to gather richer data from the participants and needed the means to further explore the participants perceptions. The theoretical rationale for this shift is explained in the methodological section, chapter 3

Recognising the value of qualitative data for this area of study, I wanted to gain some experience of these methods to build expertise and confidence. To this end, whilst collecting data for my own research, I worked with a group of colleagues and co-authored two papers related to student transition (Dinning et al., 2015) and co-creation (Money et al., 2017). Alongside this in 2014-2015 I became the lead on a project for the Equality and Human Rights Commission (EHRC), where I gained valuable experience working with another set of colleagues on a National project. Since the end of the project in 2015 I have co-authored two further papers from this project on 'making reasonable adjustments for students with disability' which gave me different perspectives on research and writing (Morley et al., 2017; Walsh et al., 2018). These four papers represent an important piece of my journey. They developed my confidence and knowledge of the research process from applying for university ethics to final acceptance of a submission and exposed me to qualitative research methods such as interviews and focus groups. Gaining experience of these data collection methods was paramount as it helped me develop as an independent researcher to focus on my preferred subject and allowed me to complete the work submitted with this connecting document.

At the end of this PhD by publication process, I consider myself a qualitative researcher, someone who explores concepts to uncover explanations rather than deduce conclusions from measurement and numerical findings. Being able to gather participants' perceptions and ideas have been invaluable in this research journey, as it has enabled me to bring about changes in my practice.

2.1 Connecting themes and perspectives

This PhD by published works has been research and practice-led with the aim of contributing to an understanding of enterprise and entrepreneurship skills and competencies across curriculum design, teaching, assessment and work-based experiences. Taking a multi-faceted viewpoint, participants were selected from the academic, student and stakeholder/employer communities. The five papers focus on two main themes

- Language associated with enterprise and entrepreneurship
- Methods and approaches for integrating enterprise and entrepreneurship with the higher education curricula

Appendix 1 page 43, shows my perception of the level to which each paper maps to the two themes.

3.0 Methodological approaches

This section will discuss the methodological approaches employed across the five articles in the submission of this PhD. The chapter will firstly consider the development of my research philosophy over the course of the published works and demonstrate for the quantitative approach reliability validity and trustworthiness for the qualitative approaches has been included across the submission. Secondly, the chapter will present a detailed discussion of the methods used across all five papers.

The research approach to each of the five publications varied and included both qualitative and quantitative as each paper was constructed to answer its own specific research questions. In hindsight, this reflected my position and confidence as a researcher at the time each paper was developed. Taking a practitioner focused approach, the published works all related to developing both as an enterprise educator and within my own student practice in teaching, learning and assessment. Kreber (2013) suggests that such an approach to research is essential in the scholarship of teaching, especially if practice is to be developed (Robson, 2016). However, it was not until after the completion of the second publication that the subject and nature of the 3rd, 4th and 5th paper was confirmed in my thinking. Therefore, the coherence of the 5 papers has evolved overtime. King and Horrocks (2010) suggest that whilst differences exist between qualitative and quantitative research, both paradigms share a purpose, that of enabling us to know more, so I felt comfortable using both in the first instance to see how my research evolved.

3.1 Research philosophy

As this submission is a synthesis that draws on 5 separate publications, it is important for me as researcher to understand how I view the world, as there is in existence different paradigms that represent ways of thinking about the world (Holliday, 2002). King and Horrocks (2010) strongly recommend that anyone pursuing an intense research project such as a PhD grasps an understanding of their philosophical standing to inform methodological approaches subsequently adopted.

My research has over the course of the 5 papers developed towards a relativist view, which views the world as unstructured and diverse (Silverman, 2017). However, at the onset of this PhD journey, I started taking a positivist/realist approach in papers 1 and 2, as I wanted to gather information and baseline data about how academics (paper 1) and students (paper 2) viewed enterprise and entrepreneurship along with associated skills. However, it soon became apparent that taking such an approach would not get my research to where I wanted it to be, as a positivist/realist approach, allows hypotheses to be tested, which is not what I saw for the future research projects. I found myself mixing both approaches in papers 1 and 2, and then staying with a realist approaches for paper 3, 4 and 5. This has allowed me to develop my understanding of the participants' views beyond their 'yes and no' answers or their ratings of a particular subject, as through the process of interviewing, the knowledge produced is reflective of the reality of the participants' experiences in the world (King & Horrocks, 2010) and is where the qualitative researcher finds their detail (Silverman, 2017). Therefore, this submission of published work is based on a mixed-methods approach, which Patton (2015) suggests produces better quality work.

In terms of 'knowledge', my submission has developed into taking an interpretivist research position which has long been associated with qualitative research (Holliday, 2002). In papers 2-5 (and paper 1 had open questions at the end of the online survey), the methods employed have allowed participants to describe aspects of their social world through detailed accounts of specific situations, processes or associations (King & Horrocks, 2010). This type of position allowed me as a researcher to interpret the explanations of others from the perspective of their voices (Smith & Sparkes, 2013) and to highlight new knowledge because of the interaction between the participants and me as the researcher. This method and viewpoint is not without criticism as the subjective nature of interpreting participants' comments can lead to issues over trustworthiness (Cohen, Mannion & Morrison, 2018), this is explored in the next section.

Previous studies in the field have adopted a range of approaches and research tools that are more in favour of conceptual and literature review style papers, with only a handful reporting through the use of qualitative and quantitative methods. In appendix 2, there is an analysis of the research approaches adopted in keys paper used across this submission, that demonstrate a gap in both empirical studies and in the subject of sport

3.2 Discussion of the main methodological approaches

The methods adopted across the submitted papers include questionnaires, focus groups and interviews. According to Golafshani (2003), when employing a range of methods both the reliability and validity of the quantitative data and the trustworthiness and confidence of the qualitative data needs to be considered. Appendix 3 page 43 provides an overview of the research methodology and participant numbers for each publication in this submission.

3.2.1. Questionnaires (online, paper 1 and in class paper 2)

The use of questionnaires for paper 1 and 2 allowed for a quick and easy data collection (Braun & Clarke, 2013), in paper 1 this was across 40 academics, and a cohort of 30 students in paper 2. Both questionnaires adopted the use of Likert Scale style questions together with a few open questions, the data was collected over a 4-week period. Croasmun and Ostrom (2011) suggest that the Likert scales are useful in social science research and research that is looking for attitude. Adopting an odd number also allowed participants to opt for neutrality, which can reduce the response bias (Fernandez & Randell, 1991).

The questionnaires generated numerical data which was used in the result sections, however as the findings represent the participants' perceptions, a criticism of this method is that participants may not have been honest and that they answered what they thought to be socially desirable, which could reduce the validity of a survey (Willits, Theodri & Luloff, 2016). However, anonymity and non-traceability can lessen this problem (Cohen, Manion & Morrison 2018) and hence, both questionnaires in paper 1 and 2 adopted an anonymous approach. The questionnaires were not pre-validated; however, both were based on enterprise (Gibb, 2002) and employability (Knight & Yorke, 2003) pre-validated skills previously researched. Even though pre-validated lists of skills were employed, both studies followed the process of administering a pilot sample, in order to iron out any ambiguity in the language, or confusion in what is being asked for as this diminishes the likelihood of the participants misunderstanding the questions (Fowler, 2009). Terry and Braun (2017) document that a weakness of surveys and questionnaires can be their incompleteness so having participants agree to be part of the study in advance meant remainder emails could be sent and 100% completion of both the online survey and questionnaire was achieved. A further criticism of this method according to

Cohen, Manion and Morrison (2018) can be that it does not allow for any follow up with the participants, as is the case with interviews. Whilst this remains a reported limitation of paper 1, it was overcome in subsequent research by adopting a qualitative approach (papers 3, 4 and 5) and in paper 2 participants agreed to take part in a focus groups, noting that anonymity did not appear to be an issue for these participants.

3.2.2 Interviews (papers 2, 3, 4 & 5)

Two methods of interview were employed across the published works:

Semi-structured interviews (paper,2, 3, 4 & 5)

Focus group (paper 2)

Reported advantages of interviews are that they allow participants to speak about their own ideas and experiences and to follow up on anything that is of significance (Cohen, Manion & Morrison, 2018) which fits well with the nature of papers 2-5 in this submission; however, it cannot go without mention that interviews are criticised for being biased and impressionistic (King & Horrocks, 2010). In choosing to use interviews these criticisms needed to be addressed, so there were clear participant inclusion criteria for each submission and where participants expressed an opinion they were asked to provide examples of practice or a rationale to support their answers. In attempting to minimise the bias a greater level of validity was achieved (Cohen, Manion & Morrison, 2018). Focus groups were only used in paper 2 as a means of gathering data that represented the student viewpoint. Focus groups are different than one-to-one interviews, as they allowed the student participants to interact (King & Horrocks, 2010) which I felt suited this group of participants as the interaction was important to get all the students talking and help with the confidence of perhaps those would normally not have much to say. In reality, the focus groups worked as all students spoke and the conversation developed as time went on. One-to-one interviews were adopted for the final three papers as participants were deemed to be experts in their field (Employers, paper 3: Enterprise Educators, paper 4 and Academics, paper 5). Adopting a semi-structured approach to the interviews, a guide was created for each set of interviews consisting of issues and topics to be covered. Patton (1980) suggests that such an approach allows the interview to remain conversational and relaxed but at the same time ensures that the data-collection has some

order to it and any gaps can be anticipated. However, it is noted that a weakness to this approach to interviewing is that the researcher could miss out a topic. Hence, in practical terms, to help overcome this I used a typed-up set of topics and suggested prompt questions, revisiting the list at each interview's end to check all aspects had been covered. I also conducted interviews in a separate room to allow for confidentiality. In doing this, it also reduced the bias that I potentially brought to the interview.

It is recognised that the use for triangulation of data is a meaningful way to establish trustworthiness (King & Horrocks, 2010), this was not always possible, however in papers 2 and 3 two different perspectives were analysed. It was recognised in paper 2, that having both students and employers' perceptions contributed to the originality of the paper, however gaining a third perception from the academic would have strengthened the paper. Whilst in paper 3, following the development of the initial skills/competencies diagram, which was based on six employers' perceptions this was reviewed and further evaluated by a further 14 employers and sport academics. In addition to trustworthiness, the credibility of the participants was considered, so in papers 3-5 that used only interviews, participants were all recruited based on variables that would deem them knowledgeable.

Whilst these five submissions have attempted to address trustworthiness in the data one aspect that could have been improved is that of participants checking the transcripts (Korstjens & Moser, 2017). The counter argument against this criticism is that all interview and focus group transcriptions followed the Braun and Clarke (2006) thematic analysis process, which is discussed further in the section 3.3. Pitney and Partner (2009) suggest that credibility of qualitative data can also come also from peer-review and each paper underwent a double-blind peer-review process before acceptance and publication.

3.3 Data Analysis

The quantitative data generated in paper 1 and 2 allowed for some basic analysis, mainly through the generation of percentages and means. The chosen qualitative analysis tool that was employed across four of the submissions was that advocated by Braun and Clarke (2006), which followed a staged process of interpretive thematic analysis. This process allows for a systematic data analysis and a rigorous selection of relevant themes in the findings which

according to Nowell, Norris, White and Moules (2017) an essential part of any trustworthy qualitative research. Whilst it is a common process to use (King & Horrocks, 2010), Sparkes and Smith (2013) suggest it does have some weaknesses as researchers can over-generalise or over-interpret the data. Therefore to overcome this, transcripts were read and re-read whilst key words and associated phrases were systematically generated. This themed data was then reviewed and refined to ensure that it was part of a coherent pattern and was reflective of the whole data set.

4.0 Overview and unique contribution of each submission

This section shows the development of the overall submission. It draws upon a range of research undertaken over a 5-year period (2013-2018) and personal experiences over a 12-year period (2006-2018).

Smith (2015) suggests that for this retrospective approach to a PhD, answering a series of questions on each paper will support the analysis of growth and progress of the research. Using the guidance from Smith (2015) and LJMU PhD by publication guidance the following set of questions has been used to structure the description and review each submission:

- What is the motivation of the paper?
- What was the review process and for which journal?
- What themes does the paper address?
- Critical review of the paper, including findings and links to other related research
- Evaluative description of the originality, wider impact and contribution to the body of knowledge
- How one paper has influenced the next

As each paper has its own review of literature as part of the published work, then only key authors are highlighted in this submission. Appendix 4 page 47 shows a summary of these key authors work as they relate to this submission and highlights where their work underpins this submission.

4.1 Paper 1: Dispelling the Myth of How to Develop Enterprise/Entrepreneurship Skills in University Students: A Staff Perception Study (2015)

Working with 30 academic staff and 12 undergraduate programmes across one faculty, it was inevitable that different views existed on enterprise and entrepreneurship. It was also evident that learning associated with enterprise education was being provided by a range of staff not just those deemed to be enterprise educators. This was therefore the main trigger for me to begin this study. Chronologically, this paper is significant as it was written as a result of my work within the LJMU CETL in the field of enterprise and my journey into academia.

The work was double blind peer reviewed and published in *Creative Education* and has a focus on academic perceptions associated with the language of enterprise and entrepreneurship, and approaches that promote enterprise skills and barriers for staff that do not include enterprise in their teaching. The teaching methods used in this study were those set out by the National Council for Graduate Entrepreneurship (NCGE) as part of their compendium of pedagogies for enterprise (Gibb & Price, 2014).

This research is pivotal, as Rae (2007a) suggested that the teaching of enterprise and entrepreneurship skills in HE is fast becoming a growth area, in response to entrepreneurial skills being seen as a way to drive economic growth and job creation (Matlay, 2006). This paper recognises that such skills can be developed through a range of teaching methods, including those already being employed by academics. The quantitative findings showed that more than 70% of academics thought role play, brainstorming, problem solving, networking and pitches to be appropriate teaching methods for enterprise and entrepreneurship, which also aligns in part to Arasti, Falavarjani and Imanipour (2010) who concluded case studies, lecturers and group discussion were valuable: however, this was specifically for entrepreneurship. Yet, the findings also found that as few as 52% of academics said they actually embedded any form of enterprise/entrepreneurship into their curriculum. The qualitative findings offered some explanation as to why this was the case, with the suggestion that staff experience barriers to embedding enterprise/ entrepreneurship, through lack of understanding of the language of the concepts, which has been previously found to be a common problem (Sewell & Pool, 2010). This ambiguity still needs to be removed and the study finds agreement with Mwasalwiba (2010) who argues that there is still disparity in the definitions and language associated with enterprise and entrepreneurship and with it comes confusion as to how it can be taught (Gibb, 2002).

This paper developed my curiosity further around the language debate (which is still ongoing) as more recently, Bridge (2017) questioned if in fact it is the word 'entrepreneurship' that should be removed, and suggested activity should be aligned with the word enterprise, so there is just one overarching definition. At this point I also started to question whether staff could acknowledge their contribution to developing a student's enterprise and entrepreneurial skills through their teaching approaches, then whether a whole programme approach to enterprise could be built on a skills/ competencies base where all staff have a part to play. This

aligns to the research by Rae (2007b) who introduced three ways in which entrepreneurship can be approached. Learning 'about' entrepreneurship which is the traditional approach associated with business plans and start up, learning 'for' which adopts a more practical approach to teaching and learning 'through' which, according to Falkang and Albeti (2000) must involve the training of students in entrepreneurial skills. It is the third approach that resonated with my thinking at this time.

The unique contribution of paper 1 is that it explores enterprise and entrepreneurship within non-business disciplines. It builds on the works of Gibb (2002) and his wider societal concept of entrepreneurship and Matley (2006) who reported that the current body of knowledge in this field lacks reference to a variety of conceptual and contextual areas. Previous scholars' work was born from the business school setting (Honig, 2004; Bennett, 2006; Arasti Falavarjani & Imanipour, 2010) with more of a focus on business start-up. Future opportunities for research exist to separate out the non-business disciplines so subject specific knowledge is created, and this influences the next two papers as they explored more specifically the subject within the context of sport.

In addition, this study reports quantitative data which is not common when undertaking research in this field, however it does appear to align to other research (Huq & Gilbert, 2013) in terms of aligning teaching methods and approaches to developing enterprise/entrepreneurship skills, as many commentators agree that skills can be taught in the teaching and learning domain. Whilst a mixed methods approach was adopted, all data collection was through an online survey which limited the study as it did not allow for any further clarification of the facts. For this reason, subsequent papers all included some face-to-face dialogue with the participants and shifting towards more qualitative research, as Cohen, Manion and Morrison (2018) suggest face-to-face data collections allows for the researcher to gather a participants experience and follow up on anything of significance. In particular, the clarification that still needed to be gathered as a result of using the online survey was further examination of the teaching and assessment approaches and specifically which enterprise competencies or skills are fostered by different approaches. This is something that became part of the future papers, with paper 2 considering one specific approach, paper 3, asking employer for industry applied approaches, paper 4 considering the approaches to assessment

and final paper 5, that was the follow on from paper one, as it captured the *academic perspective on competencies and teaching and assessment approaches*.

This paper has the potential to have a wider impact for universities, as they need to be more explicit; explaining what is expected of staff when it comes to embedding enterprise and entrepreneurship. Staff are more likely to engage if there are clear definitions and guidelines as to what is expect from programme teams and academics. Unfortunately, this study did not provide such definitions or guidelines with is a further limitation of the paper.

4.2 Paper 2: Embedding employability and enterprise skills in sport degrees through a focussed work-based project; a student and employer viewpoint (2017)

This paper is set within the context of sport and specifically explores this discipline in relation to enterprise. At the time of writing this I was the programme leader for a newly validated undergraduate Sport Business programme, so was keen to ensure enterprise featured in both the programme and my teaching. I have always been an advocate of live projects, so being able to evaluate this approach and to disseminate ideas for others was my motivation for paper 2.

Active learning approaches such as ‘live projects’ have been previously described by scholars to foster enterprise and employability skills (Rae, 2010). My motive for using this type of approach is that students are expected to think independently, develop solutions for an external host or employer and in doing so develop their own skills and competencies in line with industry. Therefore, this paper sets out to not only explore the students perception of their own personal skills development as an outcome of the module, but also to find out if it met industry expectations, as this is not something that is previously reported. Also, at this point, enterprise was more frequently being associated with employability (Rae, 2007a), yet few scholars had made note of them as a single unit. Since the publication of this paper the association has been reinforced (QAA, 2018), which supported my idea of including a mix of employability and enterprise skills in both this and paper 3.

The work was double blind peer reviewed and published in *Cogent Education* and focussed on the student and employer view point of a work-based project or ‘live’ project and explores the

perceived skill development in students following an 11-week project. My thinking behind considering both students and employers was that I had always found anecdotal evidence that a student or even an academic's interpretation of skills in the context of a workplace to be misaligned with an employer's perception, there appeared limited research studies on the topic, so paper would be addressing this gap. This paper contributes to the theme of language, and approaches. The derived skill list used in the student's questionnaire was adapted from Gibb (2002), enterprise skills behaviours and attributes and Yorke and Knight's (2006) employability skills. The same underpinning theory was then used in paper 3 for consistency between the two papers.

Findings from the quantitative student questionnaire showed that all students in this study thought a 'live' project approach helped with their skill development. In particular 60% or more students acknowledged they had developed in the following areas, project management; verbal communication; problem solving; creativity; team work; persuading and influencing, which matched previous reports (QAA,2012). The student focus groups provided some in-depth examples of their understanding of the skills in the work context, which in itself is unique as previous scholarship only considers a student's (Johnson, Judge & Wanless, 2013) or employer (Fleming, Marin, Hughes & Zinn, 2008) perceptions of whether skills being developed, not their understanding of how to demonstrate the skills means in the context of the workplace. A further key finding from this piece of research came about as a result of comparing the student and employees' perceptions of how to demonstrate aforementioned skills. This comparison highlighted a distinction between the student and employers' perception of how the skills are applied in the context of their workplace. Given it has long been considered that students over-judge themselves during self-assessment (Boud & Falochikov, 1989), the findings although not a surprise re-inforce the gap in this area. The perception of the employers, who were all from sports organisations operating from director to middle management level, was that the students had not demonstrated the skills to any great degree in the workplace. Therefore, presenting a mismatch between students and employers' perception. Employers also strongly recommended that universities need to align activity to replicate the skills within the workplace, and to do this they needed to engage more with them. This builds on the findings of Singh et al. (2013) who proposed that employers have become the most influential stakeholders for graduate employability, so it is important that

academic and students understand how these skills are applied in the workplace. This paper could have been stronger if the results had been triangulated to include an academic view point. However, a strength lies with its suggestion that discipline specific research is required if we are to enable graduates to apply the skills in their graduate roles.

The unique contribution of this paper comes through this reported mismatch in perception between student and employer as to the application and demonstration of skills in the context of sport. A report by CIPD (2008) reported mismatch between the level of skills in the graduate market and the real needs of employers but only across the sciences, technology and engineering. Equally whilst mismatch in perception have been reported previously little research has been undertaken on understanding of the nature of the mismatch. Not only does it have implications for academics to understand this mismatch but also to be able to develop a curricular that is more aligned to industry needs. One reviewer commented *'The author suggests the significance of the paper is the context (sport) however what I found insightful was the different perceptions of skills, i.e. the students–employer mismatch. Numerous studies have argued that students do not have the necessary employability skills based on employer feedback. This study delves a bit deeper and with the use of interpretive material brings to the fore just how stark perceptions between students and employer are (in this case)'* building on the work referenced above, that of Johnson, Judge and Wanless (2013) and Fleming, Martin, Hughes and Zinn (2008).

As a wider impact, this paper delivers a strong message as to the benefits of having employers involved in programme design so that work-related exemplars are embedded so that and the programme delivers an experience to students that is industry specific. These findings have also had an impact on my own practice. I now ask students when working with an employer to find out what is expected of them in terms of the skills they are trying to develop whilst on their placement / project and reflect on their ability to demonstrate the skills in the context of the workplace and the information provided by the employer.

4.3 Paper 3: Preparing sport graduates for employment: satisfying employers' expectations (2017)

Continuing on from paper 2, this article explores from an employer's perspective the skills, attributes and capabilities required of a sport graduate and how they would be expected to demonstrate these in a sports organisation. As Matley (2006) suggests, subject specific research is required on employability and enterprise skills in order that graduates are able to apply them in the work place (Jackson & Chapman, 2009), extolling the significance of this work. More recently the Department for Business, Innovations and Skills (2015) suggest that employers require graduates to be a 'good fit' in terms of skills and competencies, so there is an increasing need to not only include skill development in the curricula but also ensure that the application of the skills is industry specific (Nova, 2015). Therefore, my thinking at this point was to establish some detail around employers' requirements of graduates, as chronologically this paper fits in a new placement module I was developing, so I wanted to have a better understanding to inform my own practice.

This paper which was double blind peer reviewed was published in *Higher Education Skills and Work-based Learning*. It uses the founding work by Gibb (2002) on enterprise skills behaviours and attributes and Yorke and Knight's (2006) employability skills to frame the article and also keep it aligned with the underpinning theory in the paper 2. This paper contributes to the theme of language and approaches

The findings from the employers evidenced the need for a graduate to have what one participant described as a 'Graduate mind-set', see figure 1 page 23, which when examined further presented some commonality to the entrepreneurial mind-set previously described by Hannon (2006) and the QAA (2012) and builds on the much earlier work of Gibb (2002). This original model (figure1) illustrates in visual form the integration of skills and qualities expected by sports employers and some of the language used by the employers, which has implications if academics want their curricula to be more industry specific. The diagram can be used to support academics build a picture of skills and competencies that are bespoke to the sports industry.

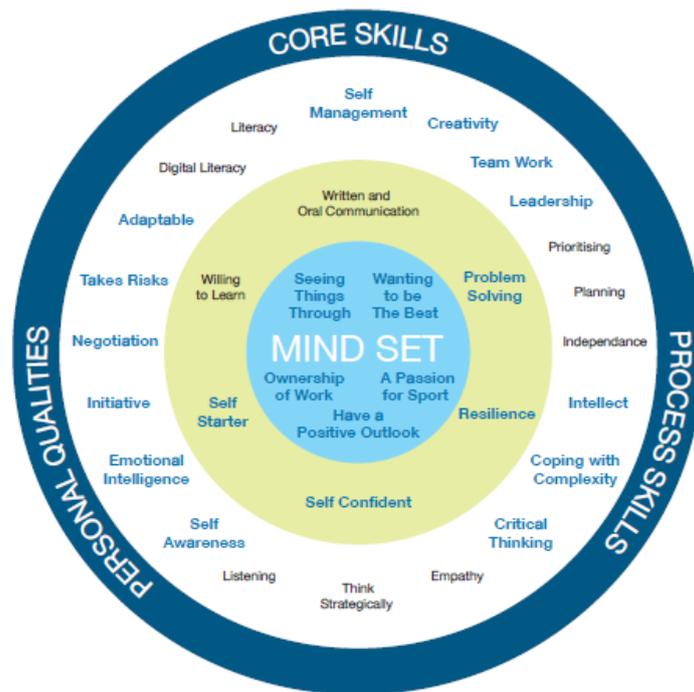


Figure 1: Graduate skills and qualities required by sports employers (Dinning 2017b: 362)

Similar to paper 2, the unique contribution of this paper is that it offers findings in the context of sport and builds upon the existing literature that academics need to have industry experience so that they can design a curriculum that centres on employer driven ideas to allow for contextualisation of the activity (Crebert et al., 2004). The paper articulated the need for a graduate mind-set, which aligns to other authors such as Sleep and Reed (2007) who suggests students need to have ‘drive’ and Wickramasinghe and Perera (2010) who suggest students need to have the ability to cope with uncertainty. However, what stands out as unique is the apparent similarities of the graduate mind set to a previously described enterprise mind set by Gibb (2002). Thus, providing a basis for a future debate around enterprise education as it ‘suggests a potential shift from the more traditional employability skills (Knight & Yorke, 2003) towards attributes and skills that are more enterprising and dynamic (Dinning, 2017b: 362).

One Reviewer of this paper commented ‘*Looking at employability from an enterprise skills viewpoint is what makes your work unique*’. The paper also starts to connect the skills and competencies to the context of sport, which has a wider impact if sports programmes at universities are to continue to support the development of work ready sport graduates. In

terms of my own practice, I regularly use employers to support the delivery of my curriculum and have set up an employability enhancement group that includes employer input. In addition, I have applied and have been successful in becoming a non-executive board member of a local sport and physical activity social enterprise, which not only allows me to advise and provide expertise to the company, but also gives me the opportunity to develop insight into the type of staff they employ and the skills and knowledge they require. Whilst this paper has not influenced any further research contributing to the submission of published works it has allowed me to support colleagues to consider a similar study in their own discipline of Events Management.

4.4 Paper 4: Assessment of Entrepreneurship in Higher Education: An evaluation of current practices and proposals for increasing authenticity (2018)

This paper explores the practice of assessment in entrepreneurship in HE and sets out to challenge notions that assessment in this area is still quite traditional (Pittaway & Edwards, 2012). Pittaway, Hannon, Gibb and Thompson (2009) argue that there is less of a focus on enterprise assessment research than there is pedagogical research, resulting in assessment research not advancing at the same rate as the changing nature of universities (Medland, 2014). Yet, as Jones and Penaluna (2013) point out given that employers seek graduates who are enterprising and entrepreneurial, they question why it is rarely effectively assessed. Therefore, the lack of scholarship in the area of entrepreneurship assessment (Jones, Matlay, Penaluna & Penaluna, 2014), is the reason for this paper. I wanted to explore if skills could be developed, but this time through assessments methods, as there was little or no scholarship at the time examining this phenomenon.

This paper which was double blind peer reviewed was published in *Compass, Journal of Teaching and Learning* and contributes to the theme of approaches. Unlike the previous three papers, the underpinning theory for this work was not from the field of entrepreneurship: instead the paper draws upon more generic literature in the area of assessment. Bloxham and Boyd (2007) suggest that assessment needs to be challenging and demanding, but also needs to extend the learning experience of the students (Brown, 2015) as well as innovative and

authentic. For this reasons, the participants chosen for the study where those who considered themselves to be enterprise educators, my thinking was that as academics who worked in this field would by the very nature of the way they teach be able to provide examples of innovative and authentic practice when it comes to assessment of entrepreneurship adding to this body of knowledge.

The findings from this study pointed towards there being a mix of assessment methods, both traditional and non-traditional being used to assess entrepreneurship, with the more traditional approaches being used to cope with the assessment of larger class sizes. However, concurring with Jones and Penaluna (2013:810) the paper found that skills were not necessarily something that was assessed, *'they just happen'*, which at the time of writing the paper was not as significant as it is now. The idea that skills and competencies are embedded within pedagogical and assessment approaches becomes more apparent in paper 5.

The unique contribution of this paper is that it considers assessment through the lens of entrepreneurship. One reviewer commented that *'This is an interesting study. It brings together some common arguments about assessment but filters them through the lens entrepreneurship assessment. It would be of interest to colleagues generally though I suspect the real interest would be from those who explicitly deal with these topics in undergrad programmes'*. In addition, the paper offers a conceptual map to support curriculum designers in making sensible choices about assessment method selection, (see Figure 2 page 26). The map proposes an original articulation of assessment with level of authenticity mapped against ease of implementation. This is by no means flawless and requires future evaluation through further research and exploration. Furthermore, this paper offers a set of recommendations for future practice to academics, students and external practitioners, which as with the conceptual map could be explored further in future research

The wider impact of this study is the challenge for academics to be authentic and creative in their approaches to assessment, but at the same time for the assessment to not become a burden to implement.

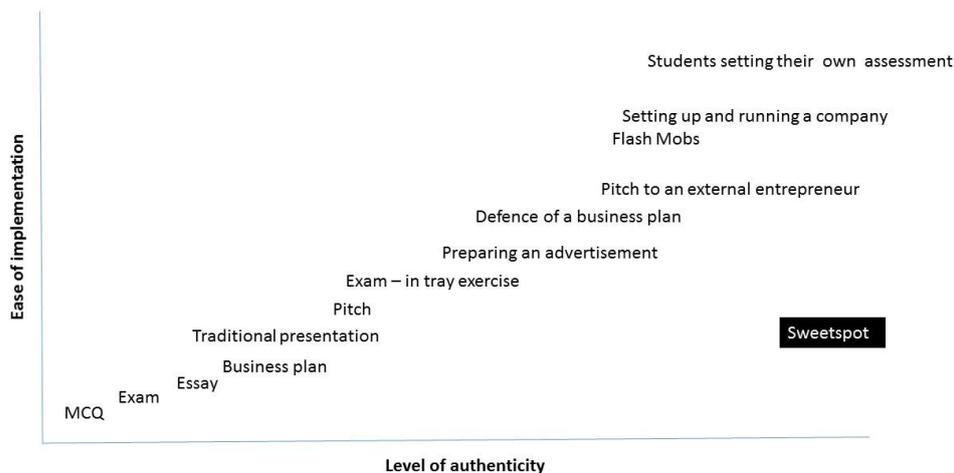


Figure 2: Conceptual map of assessment approaches against educators and authors perceived conformance to university framework (Dinning 2018: 8)

4.5 Paper 5: Articulating Entrepreneurial Competencies in the undergraduate curricular

The purpose of this final paper was to capture the academic perspective on competencies and teaching and assessment approaches in relation to entrepreneurship. Previous papers in this submission have touched on the notion that students do have the opportunity to develop enterprise skills as a result of the approaches used for teaching and assessment. Three out of four of the previous papers are linked to the theme of language. Therefore, with both themes in mind, the aims of this final paper are two-fold, firstly to explore the extent by which enterprise and entrepreneurship language is used across programme level documentation and then using the 2016 ‘EntreComp’ framework (Bacigalupo et al., 2016) to investigate the extent by which curricula are underpinned by enterprise competencies. EntreComp is an entrepreneurship competence framework created by Bacigalupo et al. (2016) on behalf of the European Commission. In it the author cites 15 entrepreneurial competences that all European citizens should be able to demonstrate. The same competencies also feature in the QAA (2018) UK guidance on enterprise and entrepreneurship, making it both current and relevant. In hindsight this paper could have included the work of Nova (2015), previously introduced in paper 3 in order to establish any synergies between the EntreComp framework and his work

on entrepreneurial competencies and sport students. This would have added to the contribution this overall submission brings to the sport sector.

This paper was double blind peer reviewed and published in *Education and Training*, it has a focus on academic perceptions, and in part is an extension to paper 1 which also focussed on staff perceptions of language and approaches. In paper 1 staff were asked about enterprise/entrepreneurship as one term whereas in this paper both words are considered separately aiming to contribute to the language debate in this area. Also, in paper 1 staff were given a list of teaching approaches and were asked to comment if they fostered enterprise/entrepreneurship skills/competencies, whereas in this paper it is the skills/competences that are presented to the academic and they report on the teaching approaches used. In paper 1 language was reported as a barrier, so I wanted to explore whether taking a different view of entrepreneurship would engage more staff in their understanding of entrepreneurship and also the process of acknowledging that it does exist within their curriculum.

The reported findings of this study suggest that very few programmes consider enterprise or entrepreneurship within their programme documentation, which is alarming given the reported importance of enterprise and entrepreneurship skills for graduates (Department for Business, Innovation and Skills, 2015) Reasons for this, firstly, appear to form part of the terminology debate and align with findings from Bridge (2017) that language needs to be simplified, and secondly, that academics do not see it as their responsibility which agrees with the work of Radloff et al. (2008).

The unique contribution of this paper is not only the further input to the language debate in this area but also it offers the view that it is not common practice to include enterprise as a feature in programme documentation. This has not been reported in any other studies and begs the question if enterprise / entrepreneurs skills and competencies are required of graduates (Bridgestock, 2009; BIS, 2015), then why are they not part of programme validation specifications, in particular programme-level learning outcomes? In terms of curriculum development, this is an area that needs to be explored further with academics.

The research found that putting aside the language debate, academics do recognise that the competencies are fostered within their programme. However, they are not included under the

term of enterprise or entrepreneurship, but as a by-product of authentic and active approaches to teaching. This finding then links back to paper 4 where a similar concept was reported with assessment, 'skills just happen'.

Therefore, from the study four approaches to embedding enterprise / entrepreneurship emerged (see Figure 3). My original Quadrant Model (figure 3), derived from this research, informs academics in relation to how entrepreneurial competencies can be mapped against the curriculum and in turn, to engage staff who would normally not see entrepreneurship as something they facilitate.

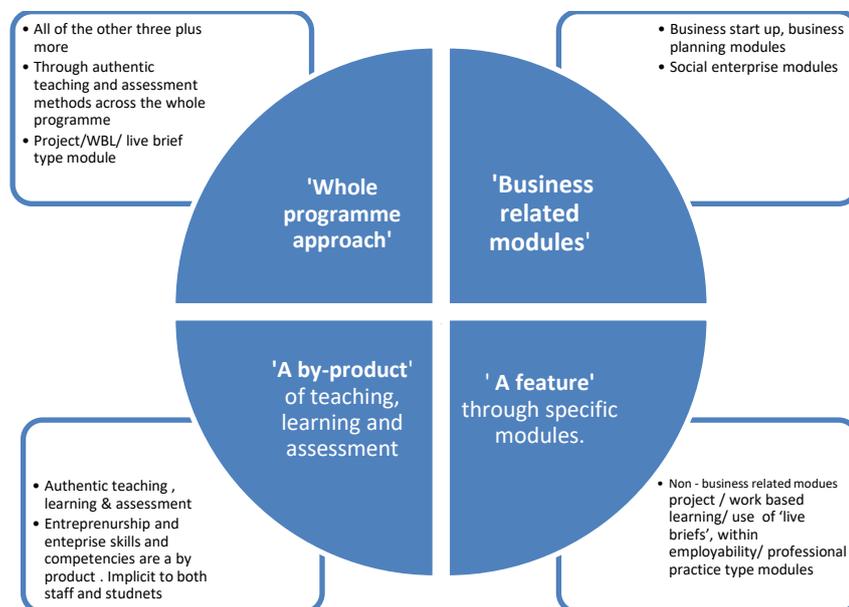


Figure 3: Quadrant Model: Four ways entrepreneurial competencies can be embedded within the curricular.

The wider impact of this model is it offers a way to engage staff who ordinarily would not think enterprise 'to be their bag'. Any academic who is innovative and authentic around teaching and assessment could align their practice to fostering specific competencies. In addition, if universities want staff to include enterprise and entrepreneurship within programmes then more direction is required, perhaps a university model and clear explanation would be useful and a valuable area for further research. Pertaining to my own practice this paper has presented me with the opportunity to explore the notion of using the Entre Comp framework

(Bacigalupo et al.,2016) as the foundation to a whole programme approach for embedding enterprise and entrepreneurship which opens new research opportunities. One reviewer of the paper supported this idea in that they commented that the paper brought *'new and significant information to the field of study'*.

5.0 Holistic contribution of this work: an overview

The HE sector is increasingly focusing on developing curricula that support students and graduates to be enterprising and to make a difference to society. As the UK witnessed a downturn in the economic climate leading to fewer job opportunities for graduates (Rae, Martin, Antcliffe & Hannon, 2012), never has it been more important to focus on the development of entrepreneurial skills, which according to Matlay (2006) is seen as a way to drive economic growth. This call to action for universities to include some form of enterprise education has more recently been reported again by QAA (2018), suggesting that formal enterprise education in universities will lead to more innovation and more startups driving growth and job creation. The works contained within this thesis firstly explore these issues within the sport sector. Matley (2006) reported that the field of enterprise and entrepreneurship is largely very general, traditionally conducted within business programmes and lacks outputs that are discipline specific. Secondly, it offers different stakeholder perspectives, which critically includes the employer, as Dees and Hall (2012) state enterprise skills must be industry-specific if they are to be meaningful, so employers can make a realistic contribution to curriculum development. Finally, the work explores the new EntreComp framework (Bacigalupo et al., 2016) for enterprise and employability from the European Commission, which has not been the subject of other research to date.

Significantly, the findings demonstrate that the language used within the HE-sector in relation to enterprise is different from that used in the external environment, which in itself can cause confusion and become a barrier. For example, in industries such as dance the term freelance is common and in sport coaching, self-employed. The term entrepreneurs would not be something that resonates with students and staff from these subjects and yet despite this there was common consensus around the competencies needed by students and graduates in relation to enterprise education. The diverse descriptive language used for example, 'freelancer'; 'employee'; 'entrepreneur', adds to the complexity of the issue as subject specific terminology is needed to support buy-in by different individuals. My findings suggest that it has to resonate rather than create barriers caused by a lack of appreciation or understanding. My research suggests that this mismatch needs to be resolved by bringing employees more into the classroom and university staff visiting relevant industries, if students are really to

understand the meaning of the enterprise skill and competencies in the context of their chosen industry. As part of a current project, I am working with student interns to build a set of resources from employees to use in the classroom and have been in talks with the university careers team about developing this further. The challenge in the future is to develop a common language understandable by all stakeholders whilst supporting students to develop in ways that enable them to flourish and thrive once they leave university and enter the workplace.

Within my own practice, I have used iterative approaches in my design and development of approaches to enterprise. I design and test in my own teaching, then to work with a colleague to test in another subject area and then disseminate. As an example of this at a module level, assessments need to be designed to fully engage students with the enterprise knowledge, skills and practice. However, as my work in study 4 shows this can be constrained by policy and assessment frameworks. If we are to empower our students to take risks, be creative, design and discover, we need to find ways through assessment to assess this in a more fluid and dynamic way and discover the assessment types that hit the 'sweetspot' described in this paper. Pittaway et al. (2009) report a lack of research into assessment in this domain due to a previous focus on pedagogical approaches whilst Jones and Penaluna (2013) suggest that there is a need for more scholarship on assessment in entrepreneurship, so this work associated with assessment also addresses both of these gaps in the current literature. I have worked with colleagues across the School to develop their assessment approaches and have supported the development of modules from foundation to level 6 where my approaches are utilised.

I have explored the EntreComp framework as a means of supporting curriculum development in relation to enterprise in a multi-disciplinary context. My research has demonstrated that these teaching approaches do work in a range of subject areas, which is significant as it is beyond the business context where this work traditionally lies. Significantly, 25 undergraduate programmes from across LJMU have been part of my research. Just through undertaking this research with colleagues, I have been able to spark interest and get others to start to develop their practices. For the last 18 months, I have been leading a School enhancement group around employability, enterprise and entrepreneurship. Working with 10 colleagues (employability and enterprise champions), I have developed a School strategy and embedded aspects of my work across the different programmes. For the next academic year I am currently writing three core modules (L4, L5 and L6) which will be run across all our undergraduate

programmes (approximately 1,200 students). To support this development, I was successful in applying for a student internship projects in May 2019, so throughout June and July I am currently working with two students to help build an online set of resources for employability, enterprise and entrepreneurship that will be made available across the University for Staff and students to access. I am very proud that the School has decided to adopt my research-informed approaches to enhance the student experience across the board and my goal is that these approaches can then be utilised across the university and beyond.

My face-to-face dissemination strategy has been to target others that would benefit from my support and run staff development workshops in my School, Faculty, across the wider University and at International conferences. I have undertaken the International Enterprise Educators Programme and shared my ideas within this community which has resulted in a network of people I call on to collaborate and share ideas. I have been invited to be part of the EntreComp Community in Practice led by the author of the framework and I am looking forward to being part of this development going forward. In addition, as a member of the European Association of Sport Management (EASM), I have been invited to sit on their newly formed Employability and Entrepreneurship working group. Whilst I have presented at several conferences, the last conference in 2018 at the IEEC led to me being asked to be a participant in an ethnographical PHD research project. I have been supporting two colleagues in the university with their own research development and will become part of their PhD supervision team in the near future as they develop their approaches to enterprise.

Appendix 5 provides an overview of the external dissemination of my work and includes numbers of downloads and citations of my work. The five papers contained within this submission have had over 5500 downloads and views, but more importantly have now started to be cited by other authors from both the UK and internationally including Lapland and Spain. Locally paper 5 has been used as the inspiration for one of my mentees Post Graduate Certificate in Learning, Teaching and Assessment and I am currently testing the use of the EntreComp framework across my own programme, which involves all staff on the programme.

As part of this work, I have also developed an Employability, Enterprise and Entrepreneurship (3Es) resource book, which provides academics with a working document and includes a suggested programme audit to assist them to embed skills and competencies. This

resource has now been shared across all programmes within the School, and modelled by 3 further sport related programmes. Having already presented this work at LJMU's Teaching and Learning Conference in 2019 there are early adopters from across the university, for example the School of Nursing, Allied Health, and Computer Science. I am now in a position to present the 3Es to the Liverpool Business School with the intention of it informing the re-validation of its programmes in 2020/2021. In addition, I have started working with the sports department at Cardiff Metropolitan University to share practice.

The transferability of this work to other disciplines is evident when you considered the current climate of graduate employability. A recent study by LinkedIn (Landrum, 2017) suggests graduates are likely to have at least four jobs in the first 10 years of their career, whilst the Department of Business, Innovation and Skills (2015) report employers seek graduates who can 'hit the ground running', adapt to their work environment and bring immediate value to the organisation. This type of landscape covet enterprising and entrepreneurship graduate, making it crucial for academics and students to understand how skills and competencies are applied in the context of their discipline, which was the focus of paper 2. In addition, the graduate mindset from paper 3, could easily be adopted by other discipline and have their own set of employers evaluate in the context of a different industry.

6.0 Conclusions and future direction of research

This work represents my journey in HE from being a classroom-practitioner to a confident research-practitioner, where I am now able to:

- determine through research the needs of stakeholders;
- disseminate my findings to support others and
- create excellent learning experiences for students that foster competencies required by employers.

Whilst my focus is on enterprise rather than directly on employability, I can now argue how each is invaluable to the other and can support the integration of these ideas through curriculum design. Over the past four years, (and whilst there is much still to explore), I have shown I can support the conditions where programme teams can start to consider a whole-programme approach to embedding enterprise. For example, I found enterprise competencies to be something that all academics can recognise in their curricula, even if enterprise and entrepreneurship are not an explicit part of that programmes vocabulary, so I can argue that the programmes have foundations already in place to embed enterprise and entrepreneurship without making any radical changes.

I am committed to the continued development of enterprise within the curriculum and see my future research working with other colleagues on multi-disciplinary projects. I am keen to develop further the use of the EntreComp framework (upon which paper 5 is based) and related to the recent QAA (2018) guidance on enterprise and entrepreneurship.

The questions I am particularly interested in exploring are:

- The extent to which EntreComp can be used to provide the foundation for enterprise in the curriculum;
- How to advance the curriculum to develop more enterprising graduates.

From a personal position to develop further as a researcher, I intend to develop my future publications to work towards submission in the next Research Excellence Framework 2021. I have the opportunity to undertake a transatlantic project with Southern Connecticut State

University, which will afford me both a bigger sample size and enable me to include an international perspective to my work.

As a direct result of my research, I have been invited to be part of a newly formed European Association of Sport Management (EASM) working group for enterprise and employability; I will be working with the Chair to propose an Enterprise Educators strand at the 2020 EASM Conference. Further impact of my work has materialised through the social site of Research Gate, where my connections to other researchers led to a collaboration with the University of Valencia to develop and test some of their work in the context of sport business. Finally, I have been approached by Routledge publishing to undertake a book on the subject for 'Employability for Sport Students', the proposal for which is due December this year.

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Appendices

Appendix 1: The author’s perception of the level to which each paper maps to the two themes.

Article title	Language associated with enterprise and entrepreneurship (Language)	Methods and approaches for integrating enterprise and entrepreneurship with the higher education curriculum (Approaches)
Paper 1 - Dispelling the Myth of How to Develop Enterprise/Entrepreneurship Skills in University Students: A Staff Perception Study	**	***
Paper 2 - Embedding employability and enterprise skills in sport degrees through a focussed work - based project; a student and employer viewpoint.	***	**
Paper 3 - Preparing sport graduates for employment: satisfying employers expectations	*	***
Paper 4 - Assessment of Entrepreneurship in Higher Education: An evaluation of current practices and proposals for increasing authenticity		**
Paper 5 - Articulating entrepreneurial competencies in the undergraduate curricular	**	*

Key

- * Low level of mapping of the themes
- ** Medium level of mapping to the themes
- *** High level of mapping to the themes

Appendix 2: An analysis of the research approaches used in keys paper used across this submission

Key

Author(s) viewpoint Policy and literature papers		Conceptual and literature review papers
Quantitative papers		Qualitative papers

Author(s) / title	Method
Akpan and Etor (2013)	Quantitative: survey and likert scale.
Arasti et al.,(2012)	Qualitative: semi structured interviews
Bacigalupo et al. (2016)	Qualitative: Practitioner experiences and knowledge An inventory of 42 entrepreneurship initiatives , 10 in-depth case studies followed by an expert workshop and multi stakeholder consultations
Bennett (2006)	Quantitative: survey and likert scale.
Bloxham and Boyd (2007)	Report: for the Open University Press Authors experiences
Bridge (2017)	Authors viewpoint
Bridge, Hegarty and Porter (2010)	Case study Authors experiences
Cox and King (2006)	Case study Authors experiences
Duval-Couetil(2013)	Literature review
Europeans Commission (2008)	Report: Authors viewpoint and experience, policy documents and literature
Fayolle (2013)	Authors viewpoint
Gibb (2002)	Conceptual paper drawing upon policy documents and relevant literature
Gibb and Price (2014)	Authors experiences and knowledge
Hegarty (2006)	Qualitative: Survey and focus group
Henry (2013)	Conceptual paper drawing upon policy documents and relevant literature
Jones (2010) Entrepreneurship	Authors view and experiences Single site case study
Jones and Iredale (2010)	Authors viewpoint

Jones, Matley and Maritz (2012)	Scenario development and reflection practice of the researchers
Jones et al (2014)	Researcher/Practitioner experiences and knowledge
Jones and Penaluna (2013)	The approach is to build around a combining of cycles of reflective practice via the authors' iterative consultation with each other.
Jones and Jones (2014)	Qualitative: Interviews Subject :Sport
Martritz (2017)	Quantitative: Survey / Likert scale
Matley (2006)	Literature review
Medland (2014)	Literature review
Mwasalwiba (2010)	Systematic literature review
Nova (2015)	Concept presented on the basis on specific feature and characteristics of entrepreneurship in sport Subject :Sport
Pittaway et al.,(2009)	Qualitative: Focus groups
Rae (2007)	Reflection of practitioner experiences
Rae (2008)	Utilises a range of national graduate employability survey data
Rae (2010)	Practitioner based educational enquiry and reflective practice
Sewel and Dacre Pool (2010)	Viewpoint paper based on two practitioners experiences and knowledge
Yorke and Knight (2006)	Based on practitioner experiences and knowledge and previous research
Penaluna and Penaluna (2009)	Review of literature and government policies
Penaluna, Penaluna and Jones (2012)	Quantitative: online survey
Pittaway and Cope (2007) Simulating Entrepreneurial Learning	Qualitative: Evaluation of students reflections
Pittaway and Edwards (2012)	Quantitative Review of course syllabi
The Quality Assurance Agency (2012) and (2018)	Practitioner experiences and knowledge, plus a review of partner organisations and enterprise education experiences
Wickramasinghe and Perera (2010)	Quantitative: Surveys
Yorke and Knight (2006)	Based on practitioner experiences and knowledge and previous research

Appendix 3; Overview of the research methodology and participants for each publication in this submission.

Article title	Methodology	Participants / sampling	Number of participants
Paper 1:	Mixed methods approach Online survey and use of Likert scale plus open questions	University academic lecturers Cluster sampling	40
Paper 2:	Mixed methods approach Questionnaire was administered at two points (pre and post) the students undertaking a project –based learning module Three student focus groups were held post completion of the module One to one interviews were held post project with the externals project hosts	University undergraduate students External project hosts Purposive sampling	30 5
Paper 3:	Qualitative Part 1: One to one interviews Part 2: Email open questions	Employers Purposive sampling Employers Academics Snowball sampling	6 6 9
Paper 4:	Qualitative One to one interviews	Enterprise Educators/ academics Purposive sampling	12
Paper 5:	Qualitative One to one interviews	Academic programme leaders. Subject heads Snowball sampling	25

Appendix 4 : Summary of the key literature that underpins this submission and the published works

Author / title	Brief overview or relevant content	How the work underpins this submission and specific papers
Bacigalupo et al. (2016) EntreComp: The Entrepreneurship Competence Framework.	EntreComp The report publishes a framework from Entrepreneurial competencies, known as EntreComp which include a list of 15 competencies to thought to improve the entrepreneurial capacity of citizens.	From starting this set of published works in 2015, the earlier papers are underpinned by Gibbs enterprise skills and York and Knight employability skills
Bridge (2017) Is “entrepreneurship” the problem in entrepreneurship education?	This paper considers the language associated with entrepreneurship and questions whether the word entrepreneurship is a source of confusion amongst academic staff.	As this paper was published during the completion of the published works, it provided a support to the language theme that was emerging from paper 1 and 2. It was also a key piece of literature paper 5
European Commission (2008) Final report of the expert group :Entrepreneurship in higher education, especially with in non-business students	The report suggests that the primary purpose of entrepreneurship education at university is to develop entrepreneurial capacities and mind-sets. However, the teaching of entrepreneurship has yet to be sufficiently integrated into university curricula. It states that entrepreneurship education should be accessible to all and also places competencies that foster innovation and the entrepreneurial mind-set at the heart of employability	This is key report that underpins this whole submission, in particular paper 3, where the mindset is the focal point of the employers desired characteristics of a employable graduate. Whilst paper 5 is attempting to develop a model that will make to easier for programme teams to embed enterprise and entrepreneurship, through a competency-based approach, both in teaching and assessment (paper 4)
Gibb (2002) In Pursuit of a New ‘Enterprise’ and ‘Entrepreneurship’ Paradigm for Learning: Creative	This is the key paper for this work, Gibb argues the need for a wider entrepreneurship paradigm and it is within this paper that merges Gibbs societal model for entrepreneurship, a model that is not exclusive to business and proposes	This paper in the key underlying framework upon which this submission is based. It presents a real shift from enterprise sitting within a business school to being made accessible across all disciplines. Having met the author, this was the paper that ignited my interest in the subject

<p>Destruction, New Values, New Ways of Doing Things and New Combinations of Knowledge</p>	<p>entrepreneurship through a set of 12 skills, attributes and behaviors</p>	<p>and has framed my thinking that enterprise and entrepreneurship can and should be made available to all students at university. In addition, the idea that all academic staff teaching on a programme can be part of the process. This concept underpins paper 1 and paper 5</p> <p>The 12 skills attributes and behaviors identified in this paper are used to underpin the questionnaires developed in paper 2 and interview skills card in paper 3</p>
<p>Gibb and Price (2014)</p> <p>A compendium of pedagogies for teaching entrepreneurship</p>	<p>This guide is published by the National Council of Enterprise Educators and provides a practical foundation for addressing the key question of 'how to teach' enterprise and entrepreneurship, rather than 'what to teach'</p> <p>Each guide stems from the educational tradition of 'learning by doing' to support the development of entrepreneurial mindsets of learners. The aim of each of these guides is to support the development of entrepreneurial attitudes and behaviours, as well as building the skills and knowledge of an enterprising person.</p>	<p>This guide is used to underpin the questionnaires developed in paper 1</p>
<p>Jones, Matley and Maritz (2012) Enterprise Education: for all or just some</p>	<p>This paper reports of 4 different views of enterprise education and through reflective practice highlights the issues associated with each route, rather than suggest one is superior to the others</p>	<p>This paper contributes to the thinking and development of paper 5 as it shows different ways to approach enterprise and entrepreneurship. This being the case, paper 5 explores different ways staff can engage with enterprise and entrepreneurship as a way to potentially get more buy in from them to embed enterprise and entrepreneurship at some level in their teaching.</p>

<p>Jones, Matley, Penaluna and Penaluna (2014) Claiming the future of enterprise education</p>	<p>This paper highlights the importance of enterprise educators working together to develop a unique scholarship of teaching and suggest that there is a need for enterprise educators to share practice, so that the field of study is not lost or subsumed by others. The authors put claim to developing scholarships of teaching that is unique to enterprise education is required to strengthen and define a place for enterprise education</p>	<p>This paper contributed to the thinking around language. However, the thinking behind paper 5 that all staff can in some way contribute to enterprise and entrepreneurship in their curriculum could be considered contradictory to this paper’s findings. The concept of enterprise education is reported in earlier submissions (paper1) as a potential barrier to staff engaging in enterprise and entrepreneurship, therefore the idea of it just been part of authentic and innovative teaching and the learning (The quadrant model paper5) and removing the language does not then support defining a place for enterprise education However, the idea around there needing to be a clear definition and understanding of what a university means by enterprise and entrepreneurship is paramount which in part underpins paper 1 and also would lend itself to breaking down the language barrier and enabling a place for enterprise education the future of an HE curricular</p>
<p>Jones and Penaluna (2013) Moving beyond the business plan in enterprise education</p>	<p>Whilst this paper has a focus on the business plan as an assessment tool, the focus that pertains to this submission is the claim that there is a need for flexible approaches to assessment, and that abilities such as creativity and innovation should be assessed, yet still seem to be challenging to academic to include are very often omitted in assessment criteria</p>	<p>This paper underpins the thinking that enterprise and entrepreneurs skills/ competencies should be assessed and informs the semi structure interview questions. Unfortunately, there was little additional knowledge gained from this study in this area as the paper 4 support Jones and Penaluna (2013)</p>
<p>Pittaway,Hannon, Gibb, and Thompson (2009) Assessment practice in enters education</p>	<p>This paper highlights the assessment practice in enterprise education as being neglected with regards to research. The paper then presents examples for assessment practice against a range</p>	<p>This paper underpins the thinking behind paper 4. Paper 4 evaluates the current practice of assessment in entrepreneurship, including whether the assessment</p>

	of entrepreneurial outcomes, one being entrepreneurial skills, behaviors and attitudes demonstrating that such can be assessed.	approach fosters the development of skills/competencies. At this point in the process of completing the published works, I had established that different teaching approaches fostered skills/competencies development [paper 1,2, &3, taking into account the perspectives from]academics, students and employer's]
Rae (2007a) Connecting enterprise and graduate employability: Challenges to the higher education culture and curriculum	This paper calls for connecting enterprise and graduate employability, with enterprise being based in skills, knowledge and attributes. It provides models, strategies and practice for embedding enterprise and employability in HE.	This paper provides the underlying concept that enterprise is a growing field of interest and the mechanism by which it can be facilitated in non-business subjects and needs to be inclusive of both employability and self-employability. The work of Rae builds on the earlier work of Gibb and through this paper underpins his thinking that the enterprise and entrepreneurship paradigm needs to shift and what Rae proposed is the connectively of enterprise with employability, which is used as the concept to underpin the questionnaire in paper 2 and interview skills card in paper 3
Rae (2008) Riding out the storm: graduate enterprise and careers in turbulent economic times	This paper reports on increasing connection being made in universities to connect employability and enterprise, in order that graduates are prepared for uncertain future careers, as enterprising people are more likely to thrive in economic change and uncertainty. This paper also suggests that there is a continuing gap between employer, student and academic perceptions' of what is required of a graduate in the workplace in terms of skills	This paper contributes further to the concept that enterprise is a growing field of interest It also provides some of the underlying theory for paper 2 and 3. In paper 2, whilst a mismatch was not surprising, the paper delved into the nature of this match, which then became part of the underlying concept for paper 3

<p>Rae (2010) Universities and enterprise education: responding to the challenge of the new era</p>	<p>This paper suggests a change in the influence of entrepreneurship education in response to more social and cultural shifts rather than solely business</p>	<p>This paper contributes further to the concept that enterprise is a growing field of interest, and also builds on the work of Gibb (2002) that enterprise needs to be taught beyond business discipline</p>
<p>The Quality Assurance Agency (2012) and (2018)</p>	<p>The QAA have produced two guidance documents for enterprise and Entrepreneurship in HE that represent the current thinking in enterprise and entrepreneurship.</p>	<p>Definitions of enterprise and entrepreneurship have been adopted from these guidance document The 2018 guidance document reports on a model from the Higher Education Academy that show synergies between employability and enterprise, which is supports previous scholarship (Morland,2006 :Rae,2007) as support the initial thinking beyond this submission and in particular paper 2</p>
<p>Yorke and Knight (2006) Embedding employability in to the curriculum</p>	<p>This is guide was published by the Higher Education Academy, as part of their Learning and Employability Series. The guide offers a range of model for employability including the idea that one size does not fit all and that the context in which employability s taught is important. In addition the guides lists three keys aspect of employability, broken down into 39 items</p> <ul style="list-style-type: none"> ● Personal Qualities ● Core skills ● Process Skills 	<p>The 39 items related to employability identified in this paper are used to underpin the questionnaires developed in paper 2 and interview skills card in paper 3</p>

Appendix 5: Summary of overview of dissemination and wider impact for this submission

Article title	Metrics [as of 01/07/19]	Associated activity
Dinning, T. (2015). Dispelling the Myth of How to Develop Enterprise/ Entrepreneurship Skills in University Students: A Staff Perception Study.	4722 downloads & views 1 citation	2014 – Received the LJMU Vice-Chancellors Award for external engagement and entrepreneurship. This work was the start of my research journey. 2014 - Guest speaker at the National Council for Enterprise Education. International Enterprise Educators programme. <i>The LJMU Experience</i>
Dinning, T. (2017). Embedding employability and enterprise skills in sport degrees through a focussed work - based project; a student and employer viewpoint.	438 downloads & views 3 citations	2015 - Guest speaker at Manchester Metropolitan University Business School Enterprise Educators programme. <i>The LJMU Experience</i> 2016 – Received the LJMU Vice-Chancellors Teaching and Learning Excellence Award.
Dinning, T. (2017). Preparing sport graduates for employment: satisfying employers' expectations.	357 downloads & views 3 citations	2017 - Conference presentation at Liverpool John Moores University Enterprise Development Conference. <i>The LJMU Experience</i>
Dinning, T. (2018). Assessment of Entrepreneurship in Higher Education: An evaluation of current practices and proposals for increasing authenticity.	None noted by the journal	2017 – Presentation at Liverpool John Moores University, Publish my pedagogy workshop. 2018 – Presentation at Liverpool John Moores University, Teaching and Learning Conference. <i>The Enterprise Tapas</i>
Dinning, T. (2019). Articulating entrepreneurial competencies in the undergraduate curricular	77 downloads	2018 – Presentation at the International Enterprise Educators Conference (Leeds Beckett University). <i>Developing an approach to embedding enterprise in the curriculum: landscape, approaches and principles through research and practice</i>

Appendix 6: Publications

Article title	
Dinning, T. (2015). Dispelling the Myth of How to Develop Enterprise/Entrepreneurship Skills in University Students: A Staff Perception Study. <i>Creative Education</i> , 6, 1584-1596.	http://researchonline.ljmu.ac.uk/id/eprint/2340/ http://dx.doi.org/10.4236/ce.2015.614159
Dinning, T. (2017a). Embedding employability and enterprise skills in sport degrees through a focussed work - based project; a student and employer viewpoint. <i>Cogent Education</i> , 4(1), 1-14.	http://researchonline.ljmu.ac.uk/id/eprint/7624/ https://doi.org/10.1080/2331186X.2017.1387085
Dinning, T. (2017b). Preparing sport graduates for employment: satisfying employers expectations. <i>Higher Education Skills and Work-based learning</i> , 7(4), 354 – 368.	http://researchonline.ljmu.ac.uk/id/eprint/7623/
Dinning, T. (2018). Assessment of Entrepreneurship in Higher Education: An evaluation of current practices and proposals for increasing authenticity. <i>Compass, Journal of Teaching and Learning</i> , 11(2), 1- 16.	http://researchonline.ljmu.ac.uk/id/eprint/10139/
Dinning, T (2019). Articulating entrepreneurial competencies in the undergraduate curricular, <i>Education and Training</i> , 16(4), 432-444.	https://doi.org/10.1108/ET-09-2018-0197

