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## The Impact of Entrepreneurship Education on Graduate Employability: A Cross Country Comparison

Rebecca Victoria Robinson  
*Cork Institute of Technology*

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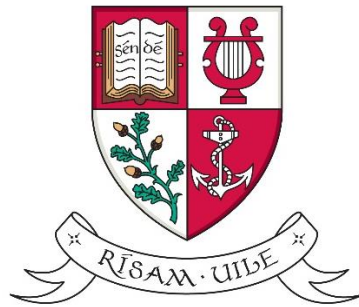
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Cork Institute of Technology  
School of Business  
Department of Management and Enterprise

# **The Impact of Entrepreneurship Education on Graduate Employability: A Cross Country Comparison**

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This dissertation is submitted for the requirements of the Masters Degree in  
Business (by Research), Cork Institute of Technology

By

Rebecca Victoria Robinson

Submitted to Cork Institute of Technology, November, 2018

Research Supervisors – Dr Breda Kenny & Dr Aisling Conway Lenihan

## Ethical Declaration

The author hereby declares that, except where duly acknowledged, this thesis is entirely her own work and has not been submitted for any other award in any third level institute.

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Rebecca Victoria Robinson (Student)

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Date:

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Dr Breda Kenny (Supervisor)

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Date:

## **Dedication**

I would like to dedicate this thesis to the inspiring memory of my late mother,  
Carole, loved and missed forever.

Thank you Mum

## Abstract

**Author:** Rebecca Victoria Robinson

**Title:** The Impact of Entrepreneurship Education on Graduate Employability: A Cross Country Comparison

This thesis identifies and addresses a major gap in Entrepreneurship Education (EE) research. Specifically, it focuses on the entrepreneurial skills and attitudes embedded in employability skills. It tests the widely accepted assertion that employers desire more well-rounded graduates who possess entrepreneurial skills. Pittaway and Cope (2007) highlight an absence of evidence in the literature establishing a link between EE and employability skills.

It is the intersection of EE and graduate employability that provides the context for this study. This study examines the knowledge, skills and attitudes resulting from education and, in particular, from EE and ascertains the extent to which educators, employers and students value employability skills, with a focus on entrepreneurial skills. The core objectives of this study are to establish which employability and in particular, entrepreneurial skills are deemed most desirable for graduates to make them employable, who is responsible and is there agreement amongst stakeholders as to the employability skills most valued in an Irish context. This thesis further contributes a cross-country comparison between the impacts of EE and graduate employability viewpoints between Ireland and Croatia and provides points of similarity as well as differences.

To provide a multi-perspective viewpoint, three sampling frames were chosen. The first sample frame comprised of recruitment professionals in Irish organisations who actively employ graduates. The second sample frame was limited to lecturers with experience in EE modules. The third sampling frame comprised senior-level students who had received some level of EE during their studies within Cork Institute of Technology, a large HEI located in the Republic of Ireland. Survey data in the form of questionnaires were gathered and analysed from each sampling frame. The results indicate that a relationship exists between educators and employers' viewpoints however; students differed in their attitudes towards employability and entrepreneurial skills to that of educators and employers.

## Acknowledgements

This thesis would not have been possible without the inspiration and support of a number of wonderful individuals.

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Thank you to Lisa Murphy for conjuring the inner entrepreneur, without whom the subject of this thesis would not have come about.

To the survey respondents, lecturers and staff in CIT who facilitated me in the organisation, distribution and collections of the data.

Finally, I must give my warmest and deepest thanks to my mother, inspiration and best friend, Carole Robinson. Mum, thank you for your constant unwavering support and faith you showed in me throughout all aspects of my life and through this journey. A journey in which we both shared the beginning together, with pride but sadly will not see us together in its completion. I am forever inspired by your memory and endeavour to make you proud in everything I do. Thank you to my wonderful partner, James O'Connor, who has supported me through the challenges, keeping me on track to work hard for the things I aspire to achieve. To his family and to my family and friends for their constant encouragement, care, support and thoughts throughout my studies and always. I am forever grateful.

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# **Chapter 1 - Introduction to this Research Study**

## **1.1 Introduction**

This thesis explores the topic of employability of new graduates. Specifically, it examines the influence of Entrepreneurship Education (EE) through the employability skills and competencies developed through Higher Education Institutions (HEIs) for graduates. This thesis presents the findings from the Irish context and then provides a comparison of outcomes from a previous study, which was conducted in Croatia.

This chapter introduces the research, provides a brief background to the study, identifies areas of interest in the literature, justifies why the research is a worthy topic of investigation and highlights a current gap in the literature that is addressed by this study. This chapter describes the research problem which is the relatively unexplored area of how and if skills attained at third level, particularly entrepreneurial skills, impact graduate employability. This chapter lists the research objectives and then introduce how the research was conducted by providing an outline of the methodology and methods used, while acknowledging the limitations of the study. The chapter concludes with a provision of the structure of the subsequent chapters in the thesis.

This thesis is organised as follows: the topic of the research is introduced in the first chapter. The next chapter reviews the literature on EE, skills and the impact on the economy. The third chapter focuses on employability skills and its link to EE and outcomes as identified in the employability literature. The methodology chapter outlines an overview of the rationale for carrying out this study in Ireland using Croatia as a comparison. This is followed by a description of the research findings. The findings chapter then discusses the outcomes from the Croatian and Irish data separately and concludes with a comparison of the findings across both countries. The thesis provides conclusions from the data collected as well as a discussion of the implications, limitations and areas of further research.

## **1.2 Background to the Study**

A relatively unexplored area of research is how third level graduate competencies acquired through EE relate to employability. This thesis examines if, and how, EE competencies developed in third level education contribute to graduate employability.

This study contributes a cross-country comparison, comparing attitudes towards employability and EE in both Ireland and Croatia.

The original study, conducted in Croatia, was reported in a paper at The RENT Conference in Zagreb in November 2016. Ljerka Sedlan Kónig, Petra Mezulić Juric and Tihana Koprivnjak, of The Josip Juraj Strossmayer University of Osijek, Croatia, undertook the initial study in 2015, which is then replicated and extended by this study. The title of their study is “Graduate Employability: A Gap between Perspectives - the Case of Croatia”. This study gratefully acknowledges the collaboration with the researchers from the Croatian study. However, this thesis adds value in its own right by not only replicating the Croatian study in an Irish context, but by further providing a cross-country comparison of the findings examining two countries with various similarities and differences. Numerous factors were considered before embarking on the cross-country comparison, including, finding the value in undertaking such a study. Areas considered included, pedagogical approaches, cultures, economies and the labour market. In the early days, before this cross-country study was decided upon, discussions on a similar topic were initially put forward therefore it was not such an alien topic to research. The topic was a good fit in terms of interest, value and familiarity to a certain extent. By conducting a cross-country comparison, findings from the Croatian study are validated and combined findings may be generalised to a wider European context. Findings from both studies are compared within this thesis and justification for a comparison between Ireland and Croatia is provided within the literature reviewed in Chapter 3.

From the literature, two broad areas of measurement dominate the impact of EE for graduates (Pittaway and Edwards, 2012; Kozlinska, 2016). The first area is subjective measures, examining the skills, knowledge and attitudes formed by graduates because of receiving EE. These are described as perceived “learning outcomes” or “competences”. The second area is objective measures, which sets out to measure nascent entrepreneurial activity, entrepreneurial behaviour and the number of established enterprises as part of the learning outcomes of receiving EE at third level. When we investigate the subject and objective measures holistically, we end up with EE and its impacts but the link between EE and the expressions of entrepreneurial behaviour as intrapreneurship and employability is an area often overlooked and worth exploring. EE does not just simple lead to entrepreneurship as a career but has many other benefits worthy of exploring. By



identifying the knowledge, skills and attitudes transferred by receiving EE in third level, we can determine which entrepreneurial skills are ranked highest from students, educators and employers' perspective in terms of desired attributes for employability. By gathering this information, we can identify the competencies that are commonly ranked to all three respondent groups and where the gaps in perceptions and skills transfer exist.

The motivations and evidence for the establishment of such programmes and their value in terms of outcomes for the graduate is worth examining further.

### **1.3 Thesis Objectives**

Having identified the lack of evidence linking EE and employability for graduates, this thesis's primary objective is to investigate the effect of EE on employability in Ireland. The study focuses on three respondent groups within the Republic of Ireland:

- a) Third-level senior students
- b) Third-level educators
- c) Graduate employers

Specifically, this research will focus on four primary objectives:

1. To establish which employability and entrepreneurial skills are ranked most desirable for employable graduates
2. To determine if there is consensus amongst the employability skills valued by employers, educators and students
3. To examine the level to of expectation among various stakeholders, i.e. students, educators and employers, concerning the role HEIs play in the development of graduate employability skills and EE skills
4. To compare the outcomes of the Croatian study to the Irish study

### **1.4 Gaps in the Literature**

Extant literature discusses the expectations gap that exists between the skills and competencies an employer would like a graduate to have, and, those skills that a graduate actually possesses when first entering the workplace. No consensus exists and there is no definitive list of graduate employability skills that are valued by employers, (Pegg *et al.*, 2012). Examining EE, anecdotal evidence suggests that graduates benefit from EE training and programmes. There is little empirical research to support the assumption that EE can generate better outcomes of entrepreneurial activity or that graduate entrepreneurs

benefit from EE (Matlay, 2006; Matlay and Carey, 2007; Nabi and Holden, 2008). Consensus on which entrepreneurial competencies are gained by students because of EE is yet to be established.

Understanding of how best to teach EE in order to acquire a particular set of skills benefitting the graduate is limited. Much debate also surrounds how best to teach EE, such as whether use of traditional methods or experiential practices (Cotton, 1993; Dacre and Sewell, 2007; Henry, 2013; Kozlinska, 2016; Graham, 2017; Huq and Gilbert, 2017) are more effective in generating the desired competences in students. Linkages can however be established in the literature by identifying skills developed by graduates who undertake EE and the desired skills for employment sought by employers.

### **1.5 Focus of this Study**

This thesis will focus on the relationship between the entrepreneurial competencies developed as a result of EE (cognitive, skill-based outcomes) and on the objective outcomes of EE (employability, nascent intrapreneurship, and entrepreneurial activity). This study will add to the literature in determining what employability skills are considered most valuable in the minds of students, employers and educators in an Irish context. Applying survey methods, this research records opinions from students, employers and educators to produce findings, which permit the ranking or valuing of certain employability skills over and above others. Analysis of the survey data also provides insights from three different perspectives as to how higher education institutes, in their provision of EE, contribute to the development of graduate employability skills. Its findings may inform a review of pedagogical approaches in HEIs and provide indications of educational gaps for graduates, which when filled appropriately, can develop graduates, both personally and professionally.

### **1.6 Limitation of this Research**

The chief limitations of this study lie in the bias, or perceived bias of this study. To offset this limitation, multi-perspective viewpoints were sought by sampling three separate sampling frames.

Thirty-nine educators took part in the study and completed the educator questionnaire (see Appendix A). Educators came from a range of disciplines within Cork Institute of Technology (CIT) to overcome any bias in only sampling from a single discipline. The

study recognises the limitations of this survey data in terms of the size of the sample of educators surveyed and the evaluation of one HEI.

Thirty employers took part in this study (See relevant questionnaire in Appendix B). The majority of these survey respondents were employed in human resource recruitment roles in large-to-medium size enterprises. To overcome recruitment bias based on size or company cultures, surveys were sent out to those in both the small to medium size enterprises and large firms nationwide. Where typically larger sample sizes are generally desirable for increasing robustness and representativeness, every effort was made to reduce bias and present a robust, representative viewpoint from this group.

As with any survey, each respondent answers were given equal weighting. However, of the thirty employers who took part in the survey, it was not possible to fully analyse whether they were from large, medium or small indigenous or from multi-national firms. As most of the graduates will most likely find employment in medium to large firms, perhaps more weight should be given to their perspectives. However, to comply with ethical requirements and to respect the anonymity promised to the employer respondents the decision was taken to not categorise the size of the companies who took part. This means that it is not possible to segment employer preferences for skills by company size.

## **1.7 Thesis Methodology**

This thesis adopts a strong positivist methodological approach in attempting to achieve the core objectives. A questionnaire, which comprised of both open and closed questions, was administered to students, employers and educators in the Republic of Ireland. The employers, educators and student questionnaires are included in Appendix A, B and C. Questionnaires were altered after piloting to eliminate duplicate skills. Ambiguous questions were identified and reworded in order to be better understood.

This study explores the relevant literature on entrepreneurship, entrepreneurship education, employability, skills, recruitment and selection from a stakeholder perspective, namely from the employers, educators and students' perspective. A questionnaire was designed to gather data on the relative importance of a set of variables on the relevant dimensions of entrepreneurship and employability skills. The questionnaire used established measures and scales to quantify all the identified independent and dependant variables identified as key considerations during standardised recruitment practices. One

questionnaire was administered to a discipline-diverse sample of final year students from CIT who had completed modules or a programme in EE (n=161). A separate questionnaire was administered to a selected sample of graduate employers (n=39) who typically recruit graduates from CIT and other third-level institutions. The separate questionnaire was then given to educators within CIT (n=30), with experience in EE, for completion. The completed questionnaires were processed and files for analysis using SPSS 2015 generated. SPSS version 2015 was used for all analysis. Questions were analysed using descriptive statistics. The Kruskal-Wallis statistical test was used to test the relationships proposed between the skills and the three respondent groups. This test was used to identify the variables that might best explain the variation in perceiving the importance of various employability skills

## **1.8 Structure of the Study**

**Chapter 1** provides a brief background to set the context of the study, identifies the objectives, focus and structure of this study.

**Chapter 2** reviews the literature and commences with a definition of entrepreneurship. It then discusses the dimensions of entrepreneurship and its capacity to be taught. The chapter then provides an overview on the forces that drive EE and what skills are unique to this type of education. Particular focus in this chapter is on the design of EE and the outcomes in terms of solutions to various socio-economic value. Finally, the future of entrepreneurship is examined including a way forward and the potential challenges.

**Chapter 3** further examines investigates the literature using an employability lens. It commences with definitions of employability and its development as a concept. It investigates the role of employability from the various stakeholders' viewpoint. Challenges in the employability environment are researched as well as the models that support employability and the implications for higher-level stakeholders. Here is where the intrapreneurship concept is introduced and the many advantages, expectations and outcomes are discussed with intrapreneurship in mind. The chapter concludes with the identification of the various skills that comprise employability skills.

**Chapter 4** states the method by which the research was undertaken. Details are given about the qualitative and quantitative research techniques used in a mixed method approach. The chapter then justifies the use of survey and interviews for this study with

a description of the advantages and disadvantages for both. The chapter concludes with an exploration of the research methodology used for this study.

**Chapter 5** presents the findings and discusses the outcomes from the Irish data collected. Chapter 5 further provides a cross-country comparison between the perceptions of employability skills and entrepreneurial skills in Ireland and Croatia. The various similarities and differences are discussed for Croatia and Ireland before examining the other findings of this research. In particular, the skills ranked as most important for both countries are identified, as well as the contribution HEIs have made to the development of these skills in both countries. Findings are discussed from an educators, employers and students' perspective and the contribution of entrepreneurial skills is extracted from the data.

**Chapter 6** presents the conclusions drawn by this research by providing direct insight into EE and employability perspectives of students, educators and employers in the Irish and Croatian context. It establishes points of alignment, validates the findings of the extant literature review, and adds to this body of literature. It concludes with suggestions for further areas of research.

## **1.9 Conclusion**

This chapter introduced the background to this research. It commented on the extensive literature available on the influence of EE and employability skills. A gap in the literature is identified. The chapter described the research objectives and problems. It stated the limitations to this research and concluded with an outline of the structure of the remainder of the thesis.

## Chapter 2 - Literature Review - Entrepreneurship Education

### 2.1 Introduction

This chapter reviews the literature for definitions of the entrepreneur and entrepreneurial characteristics with particular focus on entrepreneurial traits and the teachability of entrepreneurial skills in the EE literature. It explores which entrepreneurial traits are of benefit to graduates and employers and can entrepreneurship and entrepreneurial skills can be taught. The chapter further explores the literature for critiques of the design and structure of EE and its consequent skills transfer. Chapter 3 will examine the literature on graduate employability from the perspective of the employer and from the student perspective to optimise the benefits for the student and the employer.

### 2.2 Entrepreneurship

Entrepreneurship is a continuum in how it is defined, in various ways by various authors. These varying definitions of entrepreneurship require further clarification and need to distinguish between entrepreneurship and enterprise (Hytti and Kuopusjärvi, 2004). Cole (1969) highlights the difficulty surrounding defining entrepreneurship, stating:

*My own personal experience was that for ten years we ran a research centre in entrepreneurial history; for ten years we tried to define the entrepreneur. We never succeeded. Each of us had some notion of it-what he thought was, for his purposes, a useful definition. And I don't think you're going to get farther than that."*

*(Cole, 1969, p. 1)*

However, Cole's (1969) early doubts in trying to find a definition for an entrepreneur has not stopped researchers in seeking this. Over the years, an entrepreneur has been described as a "coordinator" (Casson, 1982), "risk taker" (Knight, 2006) or "innovator" (Drucker, 1985; Hébert and Link, 2006). Gartner (1989) focuses on the tasks that entrepreneurs do, in order to define them, and not on their personality traits. He questions if the "trait approach" can be successful in categorising a person as an entrepreneur. Gartner (1989) argues that the entrepreneurial characteristics or "traits" are ancillary to the entrepreneur's behaviour. Similarly, this thesis discusses how entrepreneurial skills can be developed, through education and in particular EE, to support graduate employability. First, it is important to understand what defines an entrepreneur, and to establish any unique characteristics that are linked with soft, employability skills.

## 2.3 Defining Entrepreneurship

Definitions of entrepreneurship vary from broad to narrow, from being enterprise-focused to entrepreneurship-focused. An understanding of what is meant by entrepreneurship, better equips educators to teach it and students to understand it.

### 2.3.1 Individual focus

Mitchell et al., (2002) discuss an enterprise focused definition of entrepreneurship that is solely about developing opportunities for the individual.

*Entrepreneurship is about individuals who create opportunities where others do not, and who attempt to exploit those opportunities through various modes of organising, without regard to resources currently controlled.*

(Mitchell et al., 2002, p. 96)

As with the growth of EE in recent years, the definition of entrepreneurship has also expanded. It not only refers to aspects of the individual, but also, the definition has been extended to include elements associated with enterprise, corporate entrepreneurship and social entrepreneurship.

### 2.3.2 Enterprise Focus

The Global Entrepreneurship Monitor defines entrepreneurship as:

*Any attempt to create a new business enterprise or to expand an existing business by an individual, a team of individuals or an established business.*

(GEM Global Entrepreneurship Monitor, 2017)

This definition is also concerned with opportunity creation but, unlike Mitchell et al., (2002), it recognises that opportunities can be developed by the individual, by groups, and also, by organisations. This definition also reflects the intrapreneurial concept of entrepreneurial skills being utilised within an organisation, a concept which will be discussed further in Chapter 3. Further support for this notion of intrapreneurship is found in Northern Ireland's Entrepreneurship and Action Plan (2006), which recognises that entrepreneurship can also be practiced by an individual or within an organisation. This Action Plan states that entrepreneurship is:

*The ability of an individual, possessing a range of essential skills and attributes, to make a unique, innovative and creative contribution in the world of work, whether in employment or self-employment.*

(Departments, Enterprise, Trade and Investment (DETI), 2006, p. 5)

### 2.3.3 Human Capital

The European Commission (2008) broadened the entrepreneurship definition and incorporated two further elements of entrepreneurship, namely, opportunity development and the human capital element. They provided a linking mechanism of the collective skills, knowledge, or other intangible assets of individuals that can be used to create economic value for the individuals themselves, their employers, and their community.

*Entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day-to-day life at home and in society, makes employees more aware of the context of their work and better able to seize opportunities, and provides a foundation for entrepreneurs establishing a social or commercial activity.*

*(European Commission, 2008, p. 10)*

The EntreComp, or Entrepreneurship Competence Framework was developed by Bacigalupo et al., (2016) and supports a human capital definition of entrepreneurship and develops our understanding of entrepreneurship as benefitting multiple areas within a wider environment. In the context of the EntreComp study (2016), individuals and groups, including existing organisations, across all spheres of life, understand entrepreneurship as a set of transversal key competences defined as follows:

*Entrepreneurship is when you act upon opportunities and ideas and transform them into value for others. The value that is created can be financial, cultural, or social.*

*(Bacigalupo et al., 2016, p. 10)*

The lack of a clear definition pertaining to entrepreneurship has influenced the debates around EE and may contribute to students avoiding or not engaging with EE (Bridge *et al.*, 2010). Entrepreneurship does not just apply to new venture creation and is not limited to the entrepreneurial individual. Entrepreneurship can also occur in existing organisations (Shane and Venkataraman, 2000). Kuratko (2005) contends an “entrepreneurial perspective can be developed in individuals” (p. 578). This perspective gives rise to the terms “corporate entrepreneur” or “intrapreneur”. These are known as individuals who can generate creative ideas and solutions within an organisation. However, a question that seems to preoccupy the literature and individuals is whether or not entrepreneurship can be taught.



## 2.4 Entrepreneurial Debate

The question as to whether entrepreneurs are born or made, has long been debated (Fiet, 2001). Can entrepreneurs be taught or not? Some scholars believe that entrepreneurship is something you are born with, an “entrepreneurial spirit” or an “art” that does not appear to be teachable (Shepherd and Douglas, 1996; Jack and Anderson, 1998; Jones and English, 2004). Conversely, it is widely accepted, in the literature, that at least some elements associated with entrepreneurship can be taught and developed through EE (Kantor, 1988; Jack and Anderson, 1998; Henry *et al.*, 2003; Kuratko, 2005). This concept of being able to teach entrepreneurship gives rise to EE.

Despite the ‘born or made’ debate, there has been an increase in the number of EE courses and entrepreneurial programmes aimed at teaching entrepreneurship to students (Katz, 2003). This debate and the growth in EE programmes are relevant to this research because this research investigates entrepreneurial education and the link to the competencies imparted by EE and developed by students through receiving EE. By identifying a certain set of entrepreneurial skills and employability skills set out by the literature, the research investigates if those skills learned through EE are attractive to employers thus making graduates more employable.

## 2.5 Entrepreneurship Education

There is an increasing pressure on HEIs from government, from students, from parents, and from industry to deliver programmes that develop graduates’ enterprise, employment and entrepreneurial skills. HEIs are struggling to deliver programmes that meet these diverse stakeholder requirements effectively (Sewell and Dacre Pool, 2010). Yorke (1999) argues that HEIs are accountable for preparing students for the difficulties they may face working in organisations, developing graduates capable of coping with change. These factors are driving the growth in EE.

### 2.5.1 Defining Entrepreneurship Education

Similar to the definitions of entrepreneurship, there is no consensus on the definition of EE. Extant literature has often defined enterprise education as a distinct activity, by distinguishing between entrepreneurship studies and “traditional” management studies (Gibb, 1999; Solomon *et al.*, 2002). EE is perceived as synonymous with other concepts such as, “through”, “for” and “about” work-related learning (Dwerryhouse, 2001), “action learning” (Smith, 2001), “experiential learning” (Kolb, 1984; Gibb, 1993;

Gorman *et al.*, 1997; Rae, 2005) and “entrepreneurial learning” (Gibb, 1999; Rae, 2000). Jones and English (2004) endeavour to define EE as:

*Entrepreneurial education program is usually defined as the process of providing individuals with the ability to recognize commercial opportunities and the knowledge, skills and attitudes to act on them*

*(Jones and English, 2004, p. 416)*

We can see from this narrow definition that EE exists solely for students to set up and run their own enterprise. Other interpretations see it as a vehicle to foster entrepreneurial competences in individuals, and develop awareness of the benefits of entrepreneurship in the society (Jones and English, 2004). Such skills and knowledge are essential for not only starting, managing and growing a new business, but for developing skills for employability and maintaining a career.

### **2.5.2 Clarifying the Entrepreneurship Education Concept**

It is important to distinguish between “enterprise skills” and entrepreneurship skills as the study of enterprise and the study of entrepreneurship can have two separate outcomes influencing student’s careers. Entrepreneurs are said to want to engage in establishing new businesses. In order to do this, they need a particular and distinctive set of personal qualities and skills. Not all students and graduates would need to or even want to develop these to the same extent. Being entrepreneurial seems to involve many of the enterprise skills, but also something extra – the ability to generate creative ideas, take risks in implementing them and be motivated to get them off the ground. For some students, this would be their passion, and it is quite right that they should be given support and advice to encourage such ventures. However, entrepreneurship is not for everybody. Placing structure around the terms and outcomes of EE is critical to its pedagogical outcomes. According to the literature, there is confusion surrounding EE. The two terms, enterprise skills and entrepreneurship skills are utilised interchangeably however for education, they have two different meanings and different outcomes. These terms are considered to mean the same to many in education and business communities (Jones and Iredale, 2010). However, Hytti and O’Gorman (2004) argue that the boundary between the two is often blurred. They claim the confusions lies in the interpretation of the word “entrepreneurship” and that it is synonymous with self-employment, business establishment and growth. The act of being “entrepreneurial” is likened to creativity, innovation and problem solving meaning two very separate interpretations. This

sentiment is echoed by (Sewell and Dacre Pool, 2010) in highlighting confusion in the use of the terms “enterprise” and “enterprising” and they attribute the confusion in terminology as being due to their careless use. Being enterprising is being “innovative, recognising/creating opportunities and taking risks/responding to challenges” on the other hand “enterprise” is simply “using enterprise as a noun meaning “business” (Sewell and Dacre Pool, 2010, p. 89). Bridge (2017) claims the word “entrepreneurship” is the problem with EE with much confusion arising over the word entrepreneurship and the word enterprise being used interchangeably and incorrectly. Consequently, no consensus can be reached on the outcomes of EE due to the many and varied definitions in existence, (Davidsson *et al.*, 2006). Sewell and Dacre Pool (2010) argue that the pedagogical consequences alone warrant that a serious attempt should be made to define the terminology surrounding “enterprise” and “entrepreneurship”. Failing to make this distinction could result in students studying enterprising subjects as opposed to studying about becoming an entrepreneur, and vice versa, and ultimately, impacting their future career path and employability opportunities (Sewell and Dacre Pool, 2010).

### **2.5.3 Entrepreneurship Education Pedagogical Approach**

O’Connor *et al.*, (2012) recognise EE needs to take a different approach to ensure students build their entrepreneurial self-efficacy. In doing this (Gibb, 1993; Sedlan König *et al.*, 2016; Bridge, 2017) have proposed that enterprise education programmes should seek to achieve three distinct aims:

1. Learn to understand entrepreneurship
2. Learn to become entrepreneurial
3. Learn to become an entrepreneur

This holistic approach can be shortened to learning “for, through and about” with a focus on the expected outcomes of the EE programmes. The proposed conceptual schema of Hytti and O’Gorman (2004) for capturing the objectives of enterprise education programmes add further elements to consider when teaching EE. They highlight the importance of the enhanced “employability” of more entrepreneurial individuals who will act as independent entrepreneurs. They highlight the importance of preparing individuals for a world where they will increasingly need to manage their own careers and lives in an entrepreneurial way.

Similar to “for, through and about” EE, Hytti and O’Gorman (2004) set out a three step concept to best capture the objectives of enterprise education programmes. Firstly, what entrepreneurship is and how it contributes to the economy and society. Secondly, developing an understanding of what it takes to become an entrepreneur. Thirdly, learning how to be an entrepreneur and the knowledge required to start a business. These three aims highlight further the importance of enhanced “employability” by creating more entrepreneurial individuals or intrapreneurial individuals (a concept that is discussed in Chapter 3).

According to the European Commission Report (2012), EE has 3 main aims:

1. *Improvement of the entrepreneurship mind-set of young people to enable them to be more creative and self-confident in whatever they undertake and to improve their attractiveness for employers*
2. *Encourage innovative business start-ups*
3. *Improvement of their role in society and the economy*

*(The European Commission, 2012, p. 21)*

The emphasis placed on the aims of and outcomes from EE illustrates that the skills developed as part of EE are primary supporting skills enabling a more employable graduate and that business start-up is a secondary outcome. The third aim, improving of one’s role in society and the economy, is, perhaps, an initially unintended but inevitable result of the outcomes of EE.

#### **2.5.4 Entrepreneurship Education as Entrepreneurial Outcome**

Several authors have highlighted the important positive links between EE and entrepreneurial outcomes (Kuratko, 2005; Pittaway and Cope, 2007). For example, individuals who have undertaken entrepreneurship learning at higher level institutions have greater intentions towards starting a business (Galloway and Brown, 2002) and are more likely to start a business than those who had not undertaken entrepreneurship learning (Kolvereid and Moen, 1997). There is also research to suggest that the outcomes of EE may lead to a positive pedagogical outcome. For example, Oosterbeek et al., (2010) measured entrepreneurial intentions among undergraduate HEI students, before, and after, completion of an entrepreneurship course and found that the student’s entrepreneurial intentions had declined in some cases. Therefore, the link between EE outcomes and an increase in entrepreneurial careers is not mutually exclusive and does not necessarily have a direct causative effect. The European Commission (2012) echoes this sentiment. The Commission states the first main objective of EE is to develop the

skills for employability. O'Connor et al., (2012), also highlight the pitfalls of entrepreneurial outcomes as a result of EE. They warn of a credibility gap between government expectations of EE and the harsh realities of being an entrepreneur. They describe the gap as a chasm that needs bridging. One of the other outcomes of EE is producing more intrapreneurial graduates that are highly attractive to organisations.

#### **2.5.5 Entrepreneurship Education as Intrapreneurial Outcome**

The understanding of the term “learning outcomes” and how it can and/or should be measured is long debated (Sweetman *et al.*, 2014). One specific learning outcome of EE is that it promotes entrepreneurial and innovative orientations that go beyond starting up one’s own business. Thus, the concept “intrapreneurship”, also referred to as “corporate entrepreneurship” has emerged in the literature. Intrapreneurial employees demonstrate creativity within organisations, identify new opportunities and possess the capability to see how the organisation can utilise their competencies to develop new products or technologies (Ireland *et al.*, 2009). EE programs provide individuals with the ability to recognise commercial opportunities outside the organisation (Jones and English, 2004). The outcomes of EE nurture entrepreneurial capabilities and create an awareness of the benefits of entrepreneurship in the economy. Such skills and knowledge are essential for not only starting, managing and growing a new business venture, but for acquiring a job and maintaining employment. Pittaway and Cope (2007) highlight that despite some studies linking EE to outcomes, such as graduate venture creation, a particular weakness in the literature is the lack of studies linking EE to outcomes pertinent to employability within organisations. Having established the link between EE and its outcomes, we next look at the drivers for EE growth.

#### **2.6 Drivers for Entrepreneurship Education**

There has never been so much demand for EE as in recent times. It is now widely accepted that education and training opportunities provided by HEIs play a key role in creating future entrepreneurs as well as developing the abilities of existing entrepreneurs to grow their existing businesses (Henry *et al.*, 2003; Sewell and Dacre Pool, 2010). Yorke (1999) argues that it is the HEIs that are accountable for preparing students for the difficulties they may face while working in organisations, and for making graduates capable of coping with change. These are some of the factors driving the growth in EE.

The relevance of entrepreneurship to improved economic welfare has been highlighted

by Davidsson et al., (2006). The growth in EE can be seen particularly in the development of EE programs, in HEIs in the US, growing from just 16 schools in 1970 up to 1,400 schools in 1998 (Katz, 2003). Many factors contribute to the growing demand in EE globally. However, sustained continual investment in higher education is critical in continuing to deliver ongoing productive gains for both the individual and the economy (Aghion, 2012).

### **2.6.1 Changes in Government Policy**

Traditionally, Ireland did not provide an environment supportive of an enterprise culture and aiding the development of indigenous enterprises (Garavan and O’Cinneide, 1994). Ireland was one of the poorest countries in Europe with high unemployment, high inflation and high emigration (De Faoite *et al.*, 2003). The 1980’s saw government enterprise policy change to attracting Foreign Direct Investment (FDI) along with the emergence of some interest in developing entrepreneurialism domestically to advance the economy. Nowadays, Ireland places a significant focus on development and creation of Small to Medium Enterprises (SMEs). It is widely accepted that SMEs are considered strategically important to national economies (Yorke, 1999). The shift in government focus to concentrate on developing indigenous SMEs in the 1980’s is due to the lack of security that came with FDI’s, according to the Guess Report (2016). This change in policy focus was reinforced by a change in economic circumstances following the recession in the 1980’s. According to the Central Statistics Office (CSO), (2014), SMEs made up more than 99.8% of all enterprises in Ireland and contributed to 68.9% of private sector employment. The SME sector included micro business comprising of 92.3%, small businesses comprising of 6.4% and medium businesses comprising of 1.1%. Large enterprises only accounted for 0.2% of the business sector in Ireland. The government recognises the huge contribution SME firms make in terms of economic development, growth opportunities and employment. The Irish government has placed a growing importance on EE because of the prominence of SMEs in our economy. Irelands Action Plan for Education (2018) also reinforces this commitment for education with a policy emphasis placed on entrepreneurial learning. Given the importance of SMEs in Ireland there is a need to ensure graduates are familiar with, and prepared to work effectively in, a varied work environment - either as an employer or employee (Hynes and Richardson, 2007a).

### 2.6.2 Changes in the Economy

Yorke (2006a) highlights an established link between education and the economy. A contributing factor for the growth of EE programs in recent years, is the fact that entrepreneurship is recognised as a key economic driver by governments, positively influencing growth, recovery and improved standards of living (Coduras Martínez *et al.*, 2008). In a recent report published by the Global Education Initiative of the World Economic Forum (2009) emphasises the importance of EE in higher education.

*While education is one of the most important foundations for economic development, entrepreneurship is a major driver of innovation and economic growth. Entrepreneurship education plays an essential role in shaping attitudes, skills and culture – from the primary level up... We believe entrepreneurial skills, attitudes and behaviours can be learned, and that exposure to entrepreneurship education throughout an individual's lifelong learning path, starting from youth and continuing through adulthood into higher education—as well as reaching out to those economically or socially excluded—is imperative*

*(World Economic Forum, 2009, pp. 8–9)*

Mayhew et al., (2012) states that economic welfare is the top priority for a nation and continuous innovation is a key economic driver. They further argue that entrepreneurs, through innovation, play a vital role in economic growth.

### 2.6.3 Changes in the Labour Market

The demands of a changing workforce, as well as the demands employers are placing on EE, is a high priority for HEIs education policy (Sewell and Dacre Pool, 2010). This is a catalyst for change in the labour market. In Ireland, rates of entrepreneurship are generally higher among those with more education (Fitzsimons and O’Gorman, 2014) and as the Irish population are becoming more educated this trend can set to continue. As noted, entrepreneurship is not the only and not the ultimate outcome of EE. Consequently, with the demand for an innovative and more skilled workforce, government and educational policy has focused more on EE as a potential solution (Hytti and O’Gorman, 2004). As a result of the increased focus on developing individuals at ever higher levels, employers are increasingly recognising the indirect, positive outcomes of EE and experiencing how these skills can positively impact their organisation. A changing culture of acceptance of the value of entrepreneurial skill within organisations is driving the increased demand for these skills.

In addition, equipping individuals with the skills for a changing work environment is

vital. According to Cheung and Chan (2011), the growing trend towards organisations offering contract work to self-employed individuals, instead of offering permanent positions is subsequently driving the need for employers to become entrepreneurs. Employers are looking for a different type of employee to meet the needs of an ever-changing labour market. This response is due to the changing work environment that demands flatter structures for management, has many technological changes and information growth (Stephenson, 1998). As a result, employers give preference to employees that are independent learners, capable of adjusting to the fast paced and challenging nature, of organisations. Employees need to graduate as highly skilled in their areas of expertise , and also be equipped with knowledge, skills and attributes over and above their qualifications (Yorke, 2006a).

## 2.7 Graduate Skills and Competencies

Graduate skills comprise both hard and soft skills; include skills learned as part of formal education, as well as, transferable interpersonal skills and including one's personality (Nilsson, 2010). "Hard skills" as "technical skills and domain competence" are the initial considerations in assessing an individual in the hiring process (Rao, 2015, p. 30). According to Rao (2013), hard skills are mostly tangible, depend on the industry within which the individual works, can be measured with accuracy and are associated with subject matter knowledge. Generally, a combination of these skills are an important consideration for employability (Nilsson, 2010). This is a fundamental outcome for education. It is believed that this combination of skills is important. Where hard skills will get you the job , the soft skills will help you keep the job (Rao, 2015).

There is much debate in the literature as to the skills and competencies that are developed as a result of EE relating to employability skills. Entrepreneurial skills include soft skills, for example vision, creativity, opportunity recognition, coping with uncertainty (Bacigalupo *et al.*, 2016), to name a few. Rae (2007) argues that students and graduates with enterprise skills are generally regarded as being more employable than those without.

Graduate attributes have been defined by (Bowden *et al.*, 2000) as:

*The qualities, skills and understandings [that] include but go beyond the disciplinary expertise or technical knowledge that has traditionally formed the core of most university courses. They are qualities that also prepare graduates as agents of social good in an unknown future.*

*(Bowden et al., 2000, p. 3)*



Within the graduate competencies that make an individual employable are the competencies that can be identified as particularly entrepreneurial skills. This is especially true if graduates take part in entrepreneurship programmes and training at higher level. The skills developed through EE is examined in the next section.

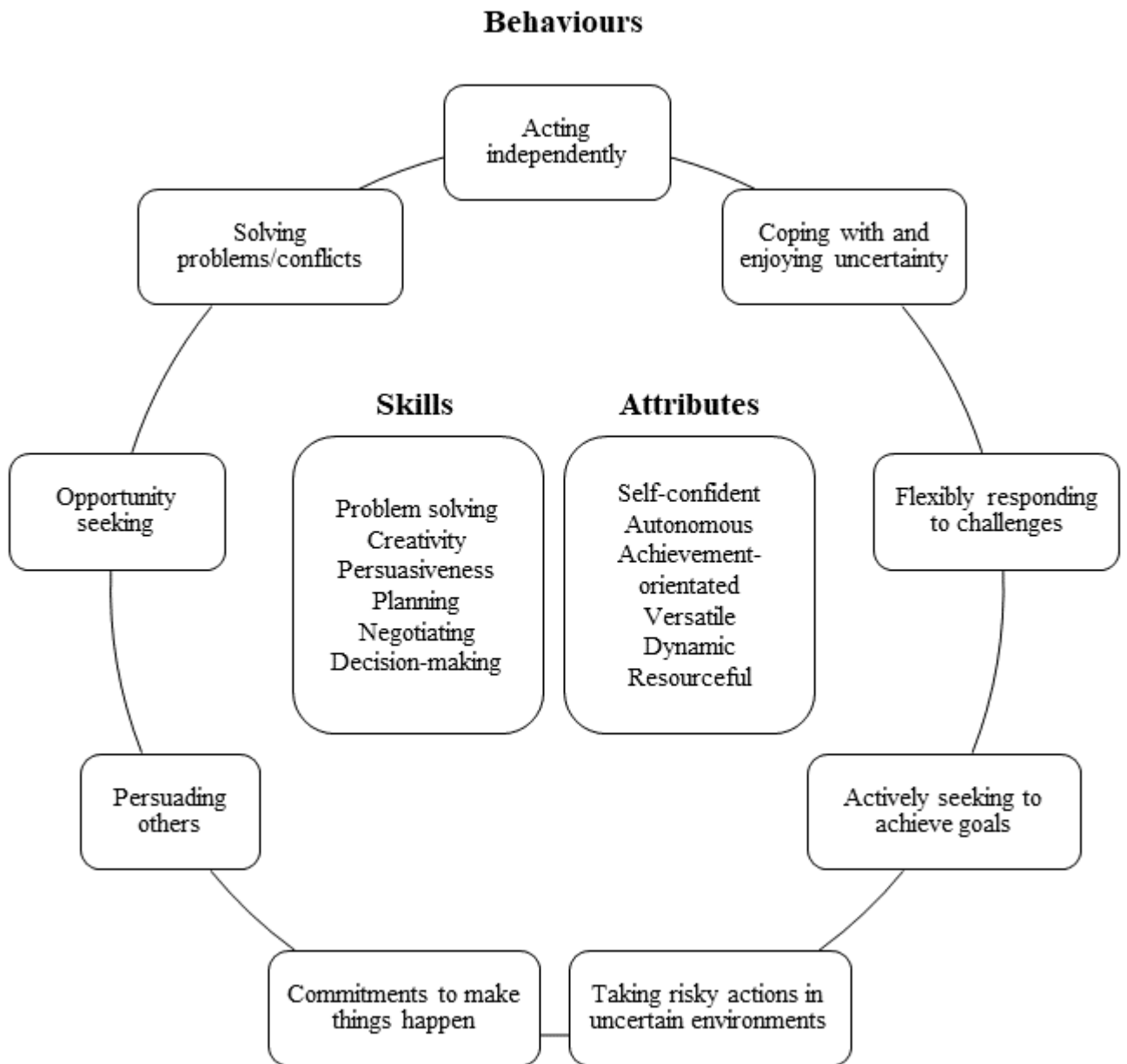
### **2.7.1 Skills Development through Entrepreneurship Education**

EE programmes can be influential in developing student's entrepreneurial attributes (Gorman *et al.*, 1997). The burden is great for HEIs to provide highly skilled, employable graduates however we must note, that it is not just HEIs that are responsible for the development of graduates but employers must play their part according to Cassells (2016). Numerous reports indicate the need to embed these attributes in education due to their benefits. The Amway Global Entrepreneurship Report (2014), stated that basic business and leadership skills (soft skills) as well as practical experience (hard skills) are the most important components of EE, which should be taught in schools, HEIs, and public programmes. The EU 2020 strategy (2010) highlights the need to embed creativity, innovation and entrepreneurship into education and proposes a number of actions to unleash Europe's entrepreneurial and innovative capabilities.

A review of the literature outlines some of the competencies developed as a result of EE. Ulvenblad *et al.*, (2013) deem communication abilities, capabilities for building organisations and dealing with regulations as key outcomes of EE. Other skills such as, "opportunity recognition", "opportunity assessment", "resource leveraging", "developing business models", "resilience", "self-efficacy" and "tenacity" as key competency outcomes (Morris *et al.*, 2013, p. 358). DeTienne and Chandler (2004) recognise the ability to identify and generate ideas as essential entrepreneurial skills. Most recently, opportunity recognition, coping with uncertainty and ambiguity are argued to be the result of EE (Kubberød and Pettersen, 2018). Other key outcomes of EE include entrepreneurial competences such as: "self-efficacy, coping with uncertainty, ambiguity tolerance and, increased self-insight" (Lackéus, 2013, p. 1). Furthermore, there is a view that the skills developed most in higher education as a result of EE are team working skills, creativity, increased confidence and problem solving ability (Galloway *et al.*, 2005). From the literature, we can see that there are many views on the leaning outcomes of EE with consensus being reached among authors.

Both Gibb (1993) and Rae (2007) have observed that the possession of enterprising skills positively influences the self-employment opportunities of individuals. This list of enterprising skills in Figure 2.1 provide an insight into what skills may constitute entrepreneurial behaviours, skills and attitudes.

**Figure 2. 1: Behaviours, skills and attributes of enterprising people**



*(Gibb, 1993, p. 14)*

Researcher generally agree that the outcomes of EE is one that has a blend of knowledge, skills and attitudes that are deemed “soft skills” necessary for employment and or self-

employment. Where the previous sections have reviewed the skills from EE from an industry and educators' perspectives. However, whether students perceive value in the skills transferred through EE is worth determining and is another question entirely.

### **2.7.2 What Students want from Entrepreneurship Education**

Recent research indicates that graduates of EE would rather seek employment over self-employment (Støren, 2014; Jones *et al.*, 2017). Despite the demand from government, students and Higher Education to support more entrepreneurial programmes, there remains a shortage of students pursuing the entrepreneurship career path (Nabi and Holden, 2008; Fitzsimons and O'Gorman, 2017). A study by Oosterbeek *et al.*, (2010), has shown that student's entrepreneurial intentions after undertaking entrepreneurial education had declined in some instances.. A report published by GUESS (2016) shows that graduates would rather be employees than employers as they start their careers. This finding could be as a result of the learners themselves having a better understanding what it takes to become an entrepreneur. This is view shared by Fayolle *et al.*, (2006), where they question the results of their study and ask if there is a way in identifying an appropriate EE programme that fits the learners profile and background. Therefore, we can establish that the link between EE and an increase in entrepreneurial careers is not mutually exclusive and does not necessarily have a direct causative effect desiring entrepreneurship as a career outcome for graduates. We can also establish that the skills outcomes because of EE design and delivery are worthy of investigation.

Students agree that a different learning approach when it comes to EE is needed. Supports such as seminars, industry professionals, incubators, funding and round table discussions ranked extremely high on the student's agenda when considering what contributes to a better learning experience for EE and students according to the GUESS Report (2016). Typically, students' priority upon graduation is not self-employment argued by Fitzsimons and O'Gorman (2017). However, students' entrepreneurial aspirations appeared to increase five years after graduation, indicating that their appetite for entrepreneurship is greater (Enterprise Ireland, 2016) perhaps this could be due to more experience gained post-graduation. The link between supports in the early days of education could significantly influence entrepreneurial intentions as time progresses for graduates, as they will always have the benefit of receiving these supports through education.

Adhering to all stakeholders' needs through the delivery of EE programmes may prove to be difficult. Students' expectations may be different from what the labour market attitudes or demands. Satisfying an ever-changing workforce can prove a difficult challenge for educators and students but ultimately, it is the employers who drive the skills demanded through the job market. Opening dialog with employers is key if EE is to satisfy all stakeholder needs. So, the question remains, what do employers want from EE?

### **2.7.3 What Employers want from Entrepreneurship Education**

To examine whether there is a disparity between what the entrepreneurial graduate demonstrates and what the employer expects subsequently requires further investigation. Asking such questions as, what do employers value in a graduate? In addition, how do they view entrepreneurial graduates? Is key to understanding employers' motivations for their recruitment and selections of individual graduates. Therefore, awareness of the importance of entrepreneurial skills/competences in higher education, and particularly, in the transition to a knowledge-based society, is growing. HEIs are increasingly required to produce graduates who have attributes, capabilities, knowledge and skills to work successfully, and who are able to respond to the changing and complex needs of their dynamic environments. Skills, (such as leadership, communication, teambuilding), as well as, entrepreneurial attributes, (such as determination, creativity, risk management and tolerance towards uncertainties, positive attitude towards change and initiative), have become critical and desirable skills for consideration when hiring and promoting employees (Audibert and Jones, 2002). Although, the acquisition and development of entrepreneurial skills is generally viewed as positive, there are concerns. (Watts and Hawthorn, 1992) pointed out some years ago, that "some employers are suspicious of students who show too much 'enterprise' and are more concerned with recruiting people who will 'fit in' and conform to the organisation's culture" (p. 14). This may still be the attitude today.

Understanding how employers typically view these skills is of benefit to educators, students and HEIs. It gives students a clearer view of how to prepare themselves for employment. It further provides HEIs with an opportunity to communicate to graduates on how best to exhibit these employability skills during the recruitment process. Investigation of this particular area would highlight these linkages between

entrepreneurial skills and employability, and provide supporting evidence to confirm or dispute the concepts surrounding EE and its impact on the individual and on the organisation. Sedlan Kőnig et al., (2016) found entrepreneurial attributes are valued by organisations during the recruitment and selection process. Attributes such as problem solving, making judgements on the basis of limited information, taking initiative, thinking outside the box, independence, working well under pressure, innovation and creativity are all taken into consideration when recruiting. Organisations widely considered these qualities as entrepreneurial qualities (Audibert and Jones, 2002), but the level to which these skills are valued still remains unclear. Entrepreneurship, employment and self-employment are fundamentally linked in their common goal of economic growth. The next section discusses the links between the economy and EE.

## **2.8 Economy and Entrepreneurship Education**

With an established link between education and the economy (Yorke, 2006a), governments recognise EE as having a positive impact on the economy and society (Matlay, 2008). Therefore, encouraging entrepreneurial activity is a priority for many governments globally (Knight and Yorke, 2004; Yorke, 2006a; Coduras Martínez *et al.*, 2008; Duval-Couetil, 2013). Jones et al., (2012) acknowledge that EE is increasingly part of the curriculum in HEIs globally further compounding the linkage. Positive attitudes towards entrepreneurship and towards new venture start up in Ireland are influenced by the Irish education system with a high standard of education and placing a focus on entrepreneurial skills according to the Organisation for Economic Co-operation and Development (OECD) (2009). This concept is important because education (including entrepreneurial knowledge and skills) has a direct impact on the country's level of entrepreneurial activity.

Ireland is a knowledge economy as reported in the GUESS Report (2016), and it is desirable, if not imperative, that Irish graduates remain a central ingredient in attracting and retaining both indigenous and global corporations, according to Ireland's National Skills Strategy (2015). Ireland produced sixty-three thousand graduates in 2014 according to the Central Statistics Office (2014). These graduates came from diverse areas of study, including the humanities, engineering, health and welfare sciences, but predominantly, in the area of social science, business and law. Documented in the literature is the importance of enterprise education and training among all disciplines in higher level, not

just enterprise programmes (Jones and Jones, 2014; The Quality Assurance Agency for Higher Education, 2018). It is fair to say that the areas producing the majority of graduates e.g. Social science and law (excluding business) presumably do not receive EE as part of their general course of study. These areas can produce in some cases have to produce entrepreneurs due to their role as a lawyer, contractor or accountant therefore EE would be essential part of their learning and a contributory factors its role for economic development (O'Connor *et al.*, 2012). For example, education has been recognised as a critical element in preventing high levels of sustained unemployment, and there is evidence of a strong connection between the level of educational accomplishment and high income levels according to the OECD (2009). This concept is important because education (including entrepreneurial knowledge and skills) has been identified as having a direct influence on a country's level of entrepreneurial activity (Reynolds *et al.*, 1999; Jiménez *et al.*, 2015; Lackéus, 2015) and should be extended to all in education fields. Continual investment in higher education is critical for the continued economic and societal benefit that EE provides.

The work of the expert group that produces “The Investing in National Ambition Report” by (Cassells, 2016) has identified four key goals by which higher education can generate the positive economic, social and culture effects for Ireland;

- 1. A high quality student experience is the single most important way in which higher education serves its students and the public good, populating society with those who can understand its past, engage with its present and imagine its future. This depends on high quality teaching, the active research and scholarship of academic staff across the full spectrum of humanities, social sciences and STEM disciplines and a high level of engagement with students and by students;*
- 2. Higher education supports innovation and upgrading in its broadest sense. This depends on the pursuit of knowledge, research and development across the full spectrum of disciplinary areas - science, technology, engineering, arts, humanities and social sciences - to address societal challenges, support prosperity and facilitate human development;*
- 3. The knowledge and capabilities of graduates meet the changing needs of organisations in the private, public and social sectors, while also enhancing individual's careers and well-being.*

4. *Increasing access and participation in higher education plays a major role in driving social mobility and improving life outcomes and can be seen as a core part of the social contract.*

*(Cassells, 2016, p. 14)*

The benefits of education, including EE, are numerous. European and local government policies and strategies are the key to delivering high quality graduates, who contribute to our economy through the ways listed above and further contribute in terms of policy development.

### **2.8.1 Entrepreneurship Education Policy**

At a national level, the Irish Government, in line with European policy, has outlined its commitment to the inclusion of EE within the national education curriculum. There is an emphasis on embedding entrepreneurship within second and third level education. This is most evident in the Enterprise Strategy Group's Report 'Ahead of the Curve' (2004) in promoting entrepreneurship as a critical component to continued economic success. The more recent National Development Plan (2007-2013) which allocated a significant portion of its budget to promote a culture of indigenous entrepreneurship further supported this strategy. Hytti and O'Gorman (2004) argue that an important element teaching of EE lies in teaching the learner the context of how entrepreneurship impacts the economy. While entrepreneurship programmes' focus is to increase the number of graduates who will start a new business, this is not and should not always be the only outcome. The development of entrepreneurship at policy level can have positive implications in establishing solutions for socio-economic issues.

### **2.8.2 Entrepreneurship as a solution to unemployment**

In recent years, the globe experienced economic recession, high unemployment and unpredictable markets. Governments and policy makers paid increased attention to the role that entrepreneurs can play by providing a possible solution by reducing unemployment rates and restoring economic growth (Garavan and O'Connell, 1994). However, the prosperity and continued development of our economy and society is dependent on our ability to reinvent, rejuvenate and challenge the status quo according to the GUESS Report (2016). In a Schumpeterian sense, entrepreneurs are the agents of change and economic development who anticipate and maybe even trigger economic booms (Koellinger and Thurik, 2009). Therefore, providing an individual with

entrepreneurial skills and competencies through the provision of EE programmes is vital (Gorman *et al.*, 1997). EE may be influential in developing the individual, but it may also go way beyond the initial skills achieved, influencing the economy on a greater scale and minimising the impact of unemployment.

According to Cassells (2016), the numbers entering higher education in Ireland grew from 15,000 in 1980 to 42,500 in 2014. The participation rates for 18-20 year olds have grown from 20 % in 1980 to a 58 % in 2015. According to the OECD (2015), 51% of people in Ireland now have a higher education qualification, and this percentage is even higher among younger adults, with more than 50% of 25-34 year olds with a higher education qualification. Both indigenous, and multi-national, companies have benefitted from this increase in the supply of graduates coupled with the improved quality of their education giving higher skilled workers (including EE). SOLAS (2018) states that higher education has generated strong returns on investment for Ireland and its economy. The main contribution of this investment in education to the Irish economy is that the impact of long-term, sustained, unemployment could be mitigated in times of economic turmoil. The need for upskilling for people with low-level qualifications is stressed, as they are more vulnerable to being employed in precarious jobs, and are twice as likely, as those who are qualified to a higher level, to experience long-term unemployment (European Commission, 2016). Other outcomes resulting from investment in education is that the state earns a higher return through graduate's high tax contributions and lower demands on welfare benefits. Graduates experience higher lifetime earnings and have better employment prospects as a result of receiving higher education (OECD, 2015). The concept of entrepreneurship as a solution for unemployment can also create economic advantages and stability, as is discussed in the next section.

### **2.8.3 Entrepreneurship as a solution to economic growth**

As is emphasised in Ireland's National Skills Strategy 2025 (Department of Education, 2015), "Ireland's people are its greatest asset" (p. 14). This report outlines Ireland's commitment to support employers by providing them with highly adaptable and skilled individuals. The development of these skills at higher level ensures that foreign direct investment continues to be attracted to Ireland, and provides indigenous companies with the ability to compete internationally.



The Innovation 2020 Report (2015) also identifies the quality of education resulting in the skilled workforce as the key differentiator for Ireland for winning future FDI . The strategy sets out the roadmap for continuing progress towards the goal of making Ireland a global innovation leader, driving a strong sustainable economy and creating a better society. The report makes it clear that a sustainably funded higher education system is vital to safeguarding the goals of the strategy. O’Connor et al., (2012) claim that the entrepreneurship agenda has become more prominent due to it providing “solutions to regenerate the Irish economy” (p. 241). They suggest that HEIs have a huge responsibility to develop quality graduate entrepreneurs to enable entrepreneurship and promote economic growth.

#### **2.8.4 Entrepreneurship as a solution to employability**

It is important to highlight that EE programmes should not be solely focused on producing graduates that are entrepreneurs, rather that they should exist to develop the graduate towards being a highly employable individual. They should also exist to support graduates employability in terms of being an innovative employee (Pinchot III and Pinchot, 1978; Gibb, 2002). EE can develop students skills and benefit organisations by providing them with the graduate capabilities that can add value through intrapreneurial activity according to the GUESS Report (2016). As graduate employment is a central goal for HEIs in Ireland, it seems that HEIs are more focused on preparing individuals for employment rather than for self-employment (O’Connor *et al.*, 2012). Utilising programmes such as EE underpins the concept of entrepreneurship as a solution for employability supported through HEIs.

#### **2.9 Entrepreneurship Education Approach**

No agreement has been reached on how best to teach entrepreneurship however it seems that a different approach is that traditional methods is needed. Many have argued that a more action-based approach is required in this developing this research field. In essence, to support EE, HEIs need to provide a better learning environment, supported by experiential learning, mentors, incubation hubs, innovation centres and workshops to name a few. A changing labour market also requires graduates to better understand the world of work and to be equipped with the skills required in order to fulfil the roles available (Gibb, 2002; Jones and English, 2004; Enterprise Ireland, 2016). A revaluation of EE approach to learning could prove very beneficial.

### 2.9.1 New Economic Age Approach

There is strong support for reconceptualising entrepreneurial curriculums to incorporate responsibility, ethics and environmentalism (Gibb, 1996; Gorman *et al.*, 1997; Hannon, 2005; Rae, 2005, 2008). This shift from an “old” to a “new” entrepreneurial learning and education model has been reinforced by the rise of the new economic age. “The international financial and economic crisis in 2008 produced a new economic era with significant implications for enterprise and entrepreneurship education” (Rae, 2010, p. 591). Many challenges still remain in more recent times.

*The challenge is how to regenerate economic activity, new jobs and sources of wealth creation, especially for young people, without the easy certainties of either corporate or public investment; to which entrepreneurship, and learning to work in the new era are vital contributions.*

*Rae (2010, p. 593)*

Due to this new economic age, there is a greater expectation that organisations and individuals engage in innovative activity both having the skills and the desire to create new business. According to Hytti and O’Gorman (2004):

*National competitive advantage is increasingly dependent on the skill base of the workforce, and more specifically, on the ability of both firms and individuals to engage in innovative activity and in new economic activity. This has created an imperative for both general skills, as these, it is suggested, are related to innovation, and for specific enterprise skills, which are related to new venture creation.*

*(Hytti and O’Gorman, 2004, p. 11)*

From the literature, we can see a call to align the curriculum with the demands from the economy. A way in which educators can address effective EE pedagogy is in understanding the various ways in which it can be taught. One approach, already outlined, is to differentiate between programmes **for** entrepreneurship, **through** entrepreneurship and **about** entrepreneurship.

### 2.9.2 “For”, “Through” and “About” Approach

EE in higher education requires a learning context that is different and that supports its entrepreneurial development (Jones and English, 2004). There is a growing need for HEIs to develop qualities in graduates that help them to qualify for employment in the global economy (Gibb, 2008). Yet traditionally, the contract between the HEI and the student focuses on knowledge and skills transfer, not personal development (Gibb, 2002). To bridge this gap, the literature suggests that EE generally follows three approaches, namely, “for”, “about” and “through” education. Gibb (1993) initially suggested two

ways to teach EE, “for” and “about” EE. He addresses the distinction between teaching “about” entrepreneurship and secondly, “for” entrepreneurship when investigating the links between small business and entrepreneurship. Above all, ensuring that the delivery of education is communicated in “a truly enterprising style” (p. 31) is a key area of focus when delivering such training programmes. The “For” is considered to prepare individuals for the establishment of a new venture. The “About” is the study of EE (Bridge, 2017). Later Hannon (2005) explored a third theme of enterprise education, “Through” entrepreneurship, suggesting entrepreneurship can be learnt and/or taught through other subjects as core capabilities. Where about, for, and through help to set the context for the learning, another theory is that EE should be embedded within the curriculum.

### 2.9.3 “Embedding” Entrepreneurship Education

The European Commission (2012) produced a report emphasising the importance of “embedding” EE, adding another element to the development of EE;

*The EU 2020 strategy highlights the need to embed creativity, innovation and entrepreneurship into education and proposes a number of actions to unleash Europe's entrepreneurial and innovative capabilities.*

*(The European Commission, 2012, p. 7)*

These four methods of “for”, “through”, “about” and “embed” act as a guide for simulating EE outcomes. Methodologies for teaching EE vary but all agree that EE supports the individual in starting, owning and managing a business and providing them with work skills important for introducing students to the world of commerce and industry (O’Connor, 2013).

Hytti and O’Gorman (2004) discuss that an important element in the delivery when providing EE is raising the learner ‘s contextual awareness and knowledge of how entrepreneurship impacts on the economy. They suggest a three-step concept of best capturing the objectives of enterprise education programmes. Firstly, what entrepreneurship is and how it contributes to the economy and society, secondly, developing an understanding in what it takes to become an entrepreneur and finally, learning how to be an entrepreneur and the knowledge needed in order to start a business. These three steps support what is described as “for”, “through” and “about” concepts for EE.

#### 2.9.4 Shifting the Focus

Vesper (1998) summaries the EE landscape by tracking its development from elective modules to introducing entrepreneurship into programs and then to more concentrated core studies with a focus on entrepreneurship. Predominantly, entrepreneurship has been hidden amongst other business courses. (Vesper, 1998) asks what if “we had started first with a school of entrepreneurship and then added a few courses for a concentration or major in middle management” (p. 14). This is thought provoking when examining EE. This statement emphasises that a greater focus than just exposing students who study enterprise related programmes at higher level is needed. That entrepreneurial learning should be incorporated or embedded into all disciplines.

Jones et al., (2012) see four main ways in which EE is positioned at higher education;

1. *It is promoted as a subject area for all, a transformative experience capable of creating an entrepreneurial mind-set in all who participate.*
2. *It is supportive pathway towards business start-up and/or the specific skills required to do so.*
3. *It provides skills and knowledge to students in the sciences and arts who seek to commercialise their intellectual property*
4. *It is just another subject of equal standing in the suite of offerings provided by the business school, alongside marketing, finance and economics, etc.*

*(Jones et al., 2012, p. 184)*

Jones et al., (2012) provide a roadmap for delivering EE by endeavouring to achieve these 4 outcomes. According to Hynes (1996) the focus on delivering EE should be reevaluated. EE should not just apply to students who study enterprise but to students of non-business disciplines (Jones and Jones, 2014; The Quality Assurance Agency for Higher Education, 2018). Shifting the focus of EE to embed into all disciplines is one way of addressing an embedded EE approach. Further approaches are also possible and an experiential approach to EE and learning is presented next.

#### 2.9.5 Experiential Approach to Entrepreneurship Education

There seems to be agreement within the literature as to the learning approach for EE. EE is best taught through an experiential approach (Gibb, 1993; Gorman *et al.*, 1997; Rae, 2005), and enhanced through real-life scenarios (Dwerryhouse, 2001). The consensus in how EE should be delivered is through action based “learning by doing” education, (Jack and Anderson, 1998; Leitch and Harrison, 1999; Jones-Evans *et al.*, 2000; Fiet, 2001). EE is not without its problems. Jack and Anderson (1998) and Henry et al., (2005) view the teaching of entrepreneurship as challenging. It may be understood as a “science and

an art” (Jack and Anderson, 1998; Henry *et al.*, 2005). The “science part” of EE is explained as teaching the “functional skills” such as management, the teachable aspects however the “art part” of EE cannot be taught in the same way as it refers to creative and innovative characteristics which are at the very core of what entrepreneurship is (Anderson and Jack, 1999; Henry *et al.*, 2005). This theory is supported by (Shepherd and Douglas (1996) acknowledging that the “art part” of entrepreneurship requires a different approach to enable effective learning:

*Since the spirit of entrepreneurship may not be endemic in every person, or may require awakening and enhancing, business education should teach not only the various business disciplines but also the essence of entrepreneurship.*

*(Shepherd and Douglas, 1996, p. 1)*

The “art” and “science” of EE draws parallels with the “soft” and “hard skills” developed that are necessary skills for graduate employment, developed in the next section.

#### **2.9.6 Skills Balance Approach**

Developing programmes that can develop both the hard and soft skills necessary to produce a well-rounded graduate is most desirable. (Knight and Yorke, 2002) suggest that the development of Reich’s (1991) “symbolic analyst” at higher level could be the key to national prosperity. They describe the “symbolic analyst” as a well-rounded individual with the necessary “soft skills” that enables the individual to utilise their “hard skills” to optimal effect. Knight and Yorke (2002) suggest the HEIs often fall short of preparing the individual for employment by not supporting the development of the “symbolic analyst” and need to make allowances for this in the design of the curriculum. Consequently, the positioning of entrepreneurship at higher education is an important consideration for the development of the “symbolic analyst”.

Therefore, the balance of skills can be difficult to get right. According to the GUESS Report (2016), students agree that a different learning approach when it comes to EE is needed. Supports such as seminars, contacts, incubators, funding and round table discussions ranked extremely high on the student’s agenda when considering what is of importance in EE. Students also valued help in developing a holistic curriculum developing the soft and hard skills necessary for a highly employable graduate.

## **2.10 Threats to the future of Entrepreneurship Education**

There are many threats to the future of EE and education in general. One of which is that today's workplace environment changes rapidly (Lackéus, 2015; Cassells, 2016). The pace of this change challenges the advancement of educational programs and requires continuous change to educational programmes and curricula. It is therefore necessary for people to become more entrepreneurial due to globalisation and increasing uncertainty on the market (Lackéus, 2015). An embracing of EE by educators and students alike is necessary, to enable a continuum of high calibre graduates to be produced. Other threats that exist are pressures on funding and accessibility to education, which can pose a risk to the development and maintaining of EE programmes. These threats are discussed below.

### **2.10.1 Perceptions of Entrepreneurship Education**

Hynes (1996) notes that EE is critical as the result of the emergence of the "SME Economy". EE not only prepares and educates individuals to identify and capitalise on opportunities adding to the SME Economy, but also allows them to be a flexible individual when adapting to the changing economies. These are very important learning outcomes from EE. However, these outcomes are potentially at risk due to the delivery of EE programmes and how they are perceived. Garavan and O'Connell (1994) questions whether certain forms of enterprise education are effective or helpful. They view EE as a "highly creative economic process" (p. 6) that can discourage participation in EE and can create a misunderstanding of entrepreneurship. The process by which EE, in particular, is conveyed at third level poses a potential threat to the future of its education. Lackéus (2015) argues that educators can view EE as a "dark threat" (p. 18). He highlights that some educators are reluctant to embrace EE due to elements of capitalism infiltrating the realms of education. Due to fear of the highly creative process that are required in EE and the lack of acceptance of EE shown by many educators, the quality of future EE programmes may be threatened if it is not perceived in a more positive light. Our HEIs play a pivotal role in communicating the vision for EE and enabling graduates to become more entrepreneurial or intrapreneurial as an outcome. A reduction in the quality of HEI offerings and how they are perceived threatens this outcome.

### **2.10.2 University Rankings**

Producing high calibre graduates to meet the demands of a ‘knowledge economy’ remains a central policy for government and the economy, although this is proving difficult to sustain. According to the “Times Higher Education World University Rankings” and “QS World Universities Rankings”, Irish universities continued to rank in the top quartile of educational institutions globally for many years, but they suffered a fall in ranking in 2018. These university rankings are assessed on performance indicators including:

- Teaching (the learning environment)
- Research (volume, income and reputation)
- Citations (research influence);
- International outlook (staff, students and research)
- Industry income (knowledge transfer)

What we can decipher is that institutions within Ireland have fallen in their performance when it comes to one, some, or all, of the above listed determinants. Ireland is falling in the rankings in its ability to perform in the areas of the learning environment, research, citations, its international outlook and knowledge transfer. These raise doubts, not alone about the quality of our education system but about the quality of our graduates. As we already discussed, Ireland is seen as a hub for skilled, educated workers that have contributed to our competitive advantage globally. A fall in the quality of our tertiary system graduate quality could threaten our economic future with the reduction of FDI and/or a drop in entrepreneurial activity. In order to claw back our fall in university ranking, funding needs to be apportioned to its investment.

### **2.10.3 Funding**

The report by Cassells (2016) “The Investing in National Ambition Report”, identifies a key finding impacting the Irish education system currently that could have catastrophic consequences. Cassells (2016) found that the contribution of higher education to Ireland’s development is now “severely” threatened. This is mainly due to a 22% fall in funding per student, in the seven years up to 2015. The report emphasises that the four key pillars by which our higher education can generate positive outcomes is in jeopardy thus pressure on higher education and those within it is being experienced. The fall in educational funding and the pressures placed on HEIs could be the start of a downward spiral in the

Irish university rankings that could be felt far and wide, threatening Irish education, FDI and our reputation in attracting and maintaining multi-national investment and employment opportunities. Historically, Ireland has placed significant investment into education and pride ourselves as been known as the Island of Saints and Scholars. Even though our reputation is not so saintly anymore, it looks like our scholarly reputation is also now at risk. The development and investment in a highly educated and skilled workforce has been a key driver of economic growth in Ireland in the recent past and has played a fundamental role in helping Ireland attract FDI (Gunnigle and McGuire, 2001; Barry, 2006, 2007; amárach research, 2014). The severe threat that is posed as a result in the fall in educational funding is of potentially serious consequences to EE and Irish education and the economy in general. The pressures experienced in the Irish education system according to “The Investing in National Ambition” report are summarised below.

**Student experience:** Reductions in funding have led to a reduction in staffing. This is having a knock-on effect by reducing the student to staff ratio, which is at 20:1. This is one of the highest student to staff ratios in the OECD. The student experience is negatively impacted as they participate in larger classes with educators having less time to dedicate to students one-on-one and to at-risk students. Cuts to student support services such as IT, library access and career guidance services may lead to completion rates falling and impact learning outcomes.

**Educators:** Academics are under increasing pressure to participate in other initiatives such as research, external engagement and fund raising, which is a distraction from their focus of teaching.

**Deteriorating Infrastructure:** Due to the legacy of austerity investment in buildings, equipment, facilities have stopped. Higher education institutes cannot expand their course offerings and therefore there is no room to offer new courses in various emerging sectors. Institutions also cannot continue to safely house students due to overcrowding.

**Financial Burden on Students:** Students, in recent years, are more likely to take up part-time employment while in college due to the cost of living increasing and maintenance grants not being able to bridge the gap. The distraction and pressure of having employment while studying can lead to an increase in non-completion of courses.



**Demand Pressures:** Labour markets and demographics will drive the increase in numbers of students entering third level education. Life-long learning, part-time and more flexible higher education will need to be accommodated in the future due to demands. This will place a greater emphasis on the need for investment facilitating change. Inevitably, access to education is linked to funding. If the price of entry into education is too high, consequently it limits participation from some socio-economic groups.

#### 2.10.4 Access

Even with the desire from student to develop skills and competencies through education at higher level, some issues can exist with access to education. Access to EE can be restricted dependant on the course of study you decide as “entrepreneurship education is primarily delivered through subjects like business or economic studies at secondary and further education levels or via business school modules at university level” (Jones and Iredale, 2010, p. 12). Cassells (2016) argues that sustained and targeted investment should ensure that anyone who wishes to participate in higher education and has the capacity to do so should not be prevented or discouraged by personal circumstances. Cassells (2016) refers to the inequity in educational attainment across the socioeconomic groups for example individuals from lower socio-economic backgrounds, individuals with disabilities and older adults tend to be less well represented in education. Ireland has developed The National Plan for Equity of Access to Higher Education 2015-2019 (2015b), which aims to address the challenges for equity of access to higher education for all. Even though we see many challenges to the future of EE, we can also see there are action plans in place by government and HEIs to ensure that these programmes remain future-proof.

#### 2.11 Conclusion

Even though employers are vocal in demanding that graduates should possess skills for employability, HEIs are failing in their efforts to provide them (AGR, 2016). No matter how responsive HEIs are to industry demands, graduate employment in organisations is becoming insecure and subject to rapid and unpredictable change. The banking and financial services sector is an example of the complete change in sector demand for employers with a particular skill set and qualification and as a result, graduates can no longer depend on specific qualifications to guarantee them a job.

EE has a direct impact on the skills development and appetite for entrepreneurship careers. Entrepreneurs contribute to the growth of the economy through job creation, new product development and opening new markets for example. However, entrepreneurs need a supportive environment in order to be encouraged to take the risk. Even though we see, the EE has a positive association with entrepreneurship careers, other factors including government policy, access to EE, and the socio-economic environment affects how EE influences entrepreneurship as a career and the development of graduates' entrepreneurial skills for use in organisations as employees. Having reviewed EE and the educational aspects of developing graduates in becoming highly employable individuals, the next chapter reviews the concept of employability.

## Chapter 3 - Literature Review - Employability

### 3.1 Introduction

“Nobody is ever perfectly employable” (Dacre and Sewell, 2007, p. 288). If no one is perfectly employable, by that reasoning, why should investment be made in employability? Increasingly, employers are looking for the best graduates. This rise in the demand for knowledge workers was predicted by Drucker (1985) over 30 years ago and now the “war on talent” has ensued (Brown *et al.*, 2002, p. 6). In a study by McKinsey & Company in 1998, the “war for talent” was identified as a strategic business challenge and a key driver of company performance. This challenge of the “war for talent” poses a problem for business. The question needs to be addressed whether the individuals themselves and the higher education institutions are responsible for making individuals more employable or is it the responsibility of the employer.

This chapter examines the desired skills associated with employability and who is responsible for the development of such skills. The way in which the curriculum is designed for employability is addressed and where it can potentially perform more effectively for employability. The definition Yorke (2006a) uses for employability is one of the most cited definitions. Employability is:

*A set of achievements – skills, understandings and personal attributes – that makes graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy*  
(Yorke, 2006a, p. 8)

From this definition, we can establish that there are many deciding factors that make an individual employable and many outcomes affecting employability. This research, which focuses on relationship between entrepreneurial skills of graduates and employability, adopts Yorke’s (2006a) definition.

There are also models of graduate employability that help to explain how students can develop the skills, understandings and personal attributes to increase their employability. By examining the literature, we can identify some key skills that employers, educators and students consider to be employable attributes and recognise that education is key in developing many of the hard and soft skills that make individuals employable. This chapter discusses the key knowledge, skills, and attributes associated with employability.

This chapter is organised as follows: the next section discusses the literature on defining the various aspects of employability, explores with whom the burden of employability lies and identifies the challenges that HEIs encounter when trying to embed employability in the design of the curriculum. An overview of employability models is provided and the intrapreneurial concept, already mentioned in Chapter 2, is explored further. The chapter concludes with an overview of the employability skill sets, which are linked to intrapreneurship and the desired employability skills sought by employers.

### **3.2 Potential for Employment in the Economy**

It is commonly believed that SMEs are strategically important the economy (Yorke, 1999). When examining the Irish socio-economic environment, CSO data from (2014) shows that SMEs account for 99.8% of total number of enterprises and SMEs account for nearly 69% of the employment of the employable total population. This sector of the economy was a key driver in generating 56.1% of total turnover in the business economy in 2014. In the context of this study, it is important to understand that SMEs are distinguished by their size. They are defined as enterprises employing 250 people or less. Where a holistic view of the SME sector is difficult to compile, the SME sector may be considered to consist of three subsectors outlined below:

- Micro Enterprises: <10 employees
- Small Enterprises: 10-49 employees
- Medium Enterprises: 50-250 employees

Starting with the statistics from the SME tier in 2014, we can see that there were 237,735 organisations operating and they were employing 919,984 individuals. In reviewing the SME sub-tiers of micro SMEs, it is clear that the largest group was the micro enterprise category. The micro enterprise sub-tier contains less than 10 employees per organisation. According to the statistics, it included a total of 219,888 organisations, employing 373,342 individuals. This accounted for 92.3% of the active enterprises but only 28% of total people employed in the Republic of Ireland. The small enterprises accounted for 6.4% of enterprises, which is less than the micro enterprises however they employed approximately 22% of the individuals, which is nearly on par with the amount employed in the micro subsector. Large enterprises employed the most individuals 414,307 (31.1%) however they amounted to only 0.2% of the organisations operating within Ireland. Large

enterprises contributed €202,039 million (43.9%) of turnover in the economy compared to €258,516 million (56.1%) of turnover from SMEs.

These statistics confirm that, from an employment viewpoint, the numbers employed within the SME sector cannot be discounted. Micro enterprises are the most abundant sector in Ireland. These statistics confirm that the Irish economy is built on entrepreneurial enterprises and affirm why encouraging entrepreneurial activity is a priority for government. Entrepreneurship is recognised as a key driver positively influencing economic growth and recovery as well as improved standards of living within the economy (Coduras Martínez *et al.*, 2008). Hynes (1996) notes the importance of EE is critical as the result of the emergence of the “SME Economy”. EE not only prepares and educates individuals to identify and capitalise on opportunities but also allows them to be flexible in adapting to the changing economies. However, Garavan and O’Cinneide (1994) question whether certain forms of enterprise education are effective or helpful due to the entrepreneurship being viewed as a “highly creative economic process” (p. 6). Given the economic benefit of entrepreneurship and its impact on employability, it is important for individuals to be well equipped with entrepreneurial competencies whether it is for new venture start up or adapting those skills to be intrapreneurial within organisational employment. Therefore, it is important to establish an understanding of the term “employability” for the purposes of this thesis.

### **3.3 Defining Employability**

According to the Higher Education Academy UK (2016) there have been several definitions of employability over past two decades. Definitions have moved away from demand-led skills, and hard skills towards a more well-rounded view of “graduate attributes”. This well-rounded individuals include people with transferable skills, personal qualities and soft skills (Graham, 2017). Graduate employability has been long and much discussed, but it has been termed a “slippery concept” due to difficulties with definition and conceptual clarity (Sewell and Dacre Pool, 2010; Pegg *et al.*, 2012). Where there may now be more widely accepted definitions, the spectrum of these definitions of employability range from broad to narrow. The lack of consensus on the definition of employability is exacerbated by the lack of empirical studies identifying or validating factors of employability. It is this lack of empirical studies where this study adds value.

### 3.3.1 Employability and Employment

Brown et al., (2002), for example, define employability in very narrow terms. “*Employability can be defined as the relative chances of finding and maintaining different kinds of employment*” (p. 11). However, Harvey’s (2003) definition of employability is one of the most referenced definitions, perhaps because this definition takes account of the different stakeholders, namely, the individual, the employer, and the HEIs.

*Employability is not just about getting a job. Conversely, just because a student is on a vocational course does not mean that somehow employability is automatic. Employability is more than about developing attributes, techniques or experience just to enable a student to get a job, or to progress within a current career. It is about learning and the emphasis is less on ‘employ’ and more on ‘ability’. In essence, the emphasis is on developing critical, reflective abilities, with a view to empowering and enhancing the learner. Employment is a by-product of this enabling process*

(Harvey, 2003, p. 3)

The value of this definition lies chiefly in the way it positions employability as a precursor or requirement for employment. It emphasises that a qualification, on its own, is not enough to secure employment. In other words, one may be employable but may be unemployed. This sentiment is echoed by Brown et al., (2004) and by Clarke and Patrickson (2008). Harvey’s (2003) definition highlights that the individual must take ownership for the development of skills that are outside the core learning provided in HEIs, thereby, increasing their abilities and attractiveness for employment. This definition allows HEIs to envisage where they can play a role in “empowering and enhancing the learner” (Harvey, 2003, p. 2).

Another influential, and well cited, definition of employability was developed by Yorke (2006a) in the publication “Enhancing Student Employability Co-ordinating Team (ESECT)”. This publication is intended for staff in HEIs who are considering the enhancement of student employability.

*A set of achievements – skills, understandings and personal attributes – that make individuals more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy.*

(Yorke, 2006a, p. 8)

From Yorke’s wider definition of employability above, we can see that employability is a “state” for which the individual must prepare. It includes the notion that individuals must show achievements beyond the qualifications that they may, or may not, have. This wider definition articulates that employability has numerous benefits not only to the

individual but also to the economy and society. What is absent from this definition is the linking of employability with education at higher level. However, Yorke (2006a) in developing his definition further, highlights that employability is multi-dimensional and that:

*Employability goes well beyond the simplistic notion of key skills, and is evidenced in the application of a mix of personal qualities and beliefs, understandings, skilful practices and the ability to reflect productively on experience,*

Yorke (2006a, p. 13)

Yorke (2006) does not identify how this mix can be achieved. His definition broadens employability beyond just getting a job, to include more about personal attributes of the individual. This wider definition is echoed by Graham (2017) who identifies employability as a state, that is not just for initial employment, but is something that one embodies in order to retain a job.

### **3.3.2 Employability is Life Long**

Dacre-Pool and Sewell (2007) suggest that employability requires a set of:

*Skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful.*

(Dacre and Sewell, 2007, p. 280)

(Dacre Pool *et al.*, 2014), added the words “*and retain*” to this definition, recognising that employability is a lifelong responsibility to ensure one can retain employment. Hillage and Pollard (1998) state that employability consists of a sequence of steps and is the sole responsibility of the individual throughout their life, citing:

*Employability is about being capable of getting and keeping fulfilling work. More comprehensively employability is the capability to move self-sufficiently within the labour market to realise potential through sustainable employment.*

(Hillage and Pollard, 1998, p. 1)

Scholarios *et al.*, (2008) share this view of continued learning. They state, the concept of employability:

*Depend[s] on continuous learning, being adaptable to new job demands or shifts in expertise, and the ability to acquire skills through lateral rather than upward career moves in varied organizational contexts.*

(Scholarios *et al.*, 2008, p. 1035)

From the employability definitions presented from the literature investigated, we can see that that employability and its outcomes has four distinct parts. Firstly, it is the ability to attain employment. Secondly, it is the ability to maintain employment. Thirdly, it is the ability to move between jobs within an organisation and fourthly, it is the ability to secure a role with another organisation, as and when required.

For the purpose of this study, a broad definition of employability is chosen, relating to skills demonstration, fulfilment of employment, and the ability to move between jobs. It relates to pro-active and accountable behaviour on the part of the individual and of the educator. Nilsson (2010) argues that it is becoming increasingly difficult to determine which competences will secure and retain a position. As such, managing one's employability is becoming more difficult.

From reviewing the literature, employability of graduates requires a three-pronged approach, with the responsibility being carried by the employee or graduate, the HEI educator and the employer. The following section reviews the areas of responsibility for each of the three main stakeholders.

### **3.4 The Responsibility of Employability**

When investigating where the responsibility lies for employability, there is no clear answer. Debate is active in the literature, research and definitions provide no consensus except to confirm that the students, the employers and the educators are the key stakeholders. Government, through its role in supporting enterprise and developing education policy plays a role, providing a fourth responsible stakeholder in the development of employability. The following section reviews the four roles of the student, the employer, the educator and the government and the role each plays in creating graduates and individuals who are the beneficiaries of employability.

#### **3.4.1 Student Role in Employability**

Students are increasingly recognising the growing demand for the knowledge economy. Since the 1980's, there has been an increase in numbers of third-level graduates seeking employment and continued growth in the number of courses offered by HEIs (Rae, 2007). However, the expectation from students, that education alone will secure their future employability is misconstrued. The number of graduates entering the market place is increasing, so there is more pressure to develop graduates' employability skills and provide students with a competitive edge in an increasingly competitive employment



market (Harvey, Lee; Moon, Sue; Geall, Vicki; Bower, 1997). HEIs can teach graduates about employers' expectations and about performance required within an employment role. They cannot produce a perfectly rounded graduate suitable for every employer's needs (Yorke, 2006a). Yorke (2006a) also believes that it is the student's responsibility to develop, and to demonstrate, their specific set of skills, highlighting their potential for employment. Higher education can develop students and assist with the preparation for employment - but only to a certain level. It is the responsibility of graduates to cope with the challenges of future employment. The responsibility for managing and developing employability lies with each individual (Yorke, 2006a; Nilsson, 2010; Palvin, 2012).

An inevitable disjoint exists between what employers want and what HEIs can deliver in terms of a perfectly employable graduate for a particular organisation Yorke (2006a). Even if efforts are made to produce graduates who have multiple employability skills, this still does not guarantee them employment (Yorke, 2006a; Clarke, 2008; Clarke and Patrickson, 2008). The onus is on students to, not only learn the technical skills associated with their chosen area of learning in third level, but to develop their generic skills and increase their chances of employment. For example, graduates can increase their own employability by engaging in extra-curricular activities, while in higher education (U.S Department of Labor, 1991; Schulz, 2008; Nolan, 2013). Engaging in such activities is said to develop a graduate's generic skills, skills that are increasingly desired by employers (Maher, 2004; Yorke, 2006a; Clarke, 2008; Clarke and Patrickson, 2008). By graduates taking ownership to learn skills outside of their mandatory course learning, they demonstrate to employers that they possess extra skills compared with other graduates. Desirable skills include, for example, ambition, dedication, teamwork, responsibility and motivation and these are positively viewed by employers when seeking to fill roles within their organisations. Graduate participation in placements, in internships, in work-based learning opportunities and in extra-curricular activities, are all effective ways of providing employers with graduates with the relevant employment skills, knowledge and awareness of the employer's culture while making graduates more employable (Lowden *et al.*, 2011).

Students are struggling to see the relevant value of their qualifications, as a determinant for employment. Students believe that qualifications, acquired at third level, are an important component for employability but qualifications are not the only determinant.

The development of skills above or outside of their qualifications is also needed to make them stand out in a labour market which is saturated with qualified graduates (Tomlinson, 2008).

Employers have a role to play too, either by communicating with HEIs to establish the employability skills they require, or by developing the graduate further in order to adapt to the individual firm's unique demands.

### **3.4.2 Employers Role in Employability**

Employers expect graduates to demonstrate a range of skills and attributes that include “team working, communication, leadership, critical thinking, problem solving” and often managerial abilities or potential” (Lowden *et al.*, 2011, p. 24), but where does the responsibility lie to impart these skills? Clarke (2008) puts it simply that “a greater emphasis should be placed on how organisations can support employees to manage careers and employability” (p. 258). Clarke (2008) disagrees that individuals are responsible for the development of their own employability status and calls for the emphasis on individual responsibility for employability to be re-examined. Clarke (2008) also states that, by taking responsibility for creating a more employable labour force, employers can contribute to attracting and retaining individuals within an increasingly tight labour market with the onus of developing employability placed on the organisations requiring talent. For Clarke (2008) the question should be, how employers can support employees to manage careers and employability and not the other way around. A study analysis by Clarke and Patrickson (2008) finds that there is a growing expectation that organisations will manage an individual's career through job-specific training and development. They believe the responsibility to make individuals more employable, lies with the organisation themselves.

Scholarios *et al.*, (2008) hold the same view of employer responsibility for enabling employees to acquire employability qualities. Scholarios *et al.*, (2008) goes a step further and suggests that employers should take responsibility for enabling employees to acquire these further employability qualities, as this replaces the increasingly-rare promise of job security and provides a ‘safety net’ for the individual in the event of redundancy. Here Scholarios (2008) is proposing that there is a moral onus on employers to future-proof employees career prospects against loss of their job in their current organisation. However, this study concludes with a question posed by the knowledge economy, as to

whether individuals should take responsibility for their own skills development and marketability. A report issued by SOLAS (2018) states that firms that invest in the development of their staff, benefit through improved productivity and competitiveness both for their employees and for the business. Where there is debate in the literature on the areas of responsibilities of the employee and the employer, it appears there is some consensus that a large burden is placed on HEIs to make students more employable.

### **3.4.3 Higher Education Institutes Role in Employability**

A key success metric of HEIs is the employability of their graduates (O'Connor *et al.*, 2012). There is an expectation from students, from parents, and from employers, to produce a well-rounded graduate. Teichler (2003) debates that rapid expansion of higher education across Europe over the past two decades has resulted in questions being raised about the quality of the graduate labour market and the ability of graduates to meet the needs of employers. Traditionally, the contract between the HEI and the student focuses on knowledge and on skills transfer and not on personal development (Gibb, 2002). Gibb (2008) recognises that there is a growing need that HEIs develop qualities in graduates to help them qualify for the global economy. Graduate attributes are the generic qualities developed by students while at HEI and they have been defined as:

*The qualities, skills and understandings a university community agrees its students would desirably develop during their time at the institution and, consequently, shape the contribution they are able to make to their profession and as a citizen.*

*(Bowden et al., 2000, p. 3)*

As we can see from this definition, it is desirable that certain skills should be developed with the aid of higher education, yet this does not imply that HEIs are responsible for their development. In contrast, The Dearing Report (1998) places the burden of responsibility solely on HEIs for the development of employability skills in graduates. The report concludes that that the primary purpose of any HEI is to prepare their students for the world of work. Hynes and Richardson (2007b) believe educational institutions are further responsible for ensuring that graduates are capable of acting in an enterprising manner in the workplace, either as an entrepreneur, or, as an intrapreneur in paid employment.

Generally, employers share this view also. Increasingly, employers are voicing concern over the quality of graduates leaving HEIs, while educators in HEIs feel that employers are not fully appreciative of the qualities and skills that graduates possess. Nevertheless,

current employers are looking for a different type of employee and are demanding more from HEIs. This demand for the knowledge worker has been brought about by the changing work environment that demands flatter structures for management, has many technological changes and information growth (Stephenson, 1998). As a result, employers require employees that are independent learners, capable of adjusting to the fast-paced environment and the challenging nature of organisational demands. Repeatedly, the assumption is made that subject knowledge learned in higher education, is a requirement, but is not a sufficient requirement on its own, for employment (Lowden *et al.*, 2011). Employability skills, consequently, as a complement to subject knowledge, are critical in demonstrating fitness for the workplace, but are rarely sufficiently developed through higher education alone (Brennan *et al.*, 2001). Bennett *et al.*, (2015) recognise that one of the responsibilities of HEIs is to provide graduates with the knowledge, skills and attributes to develop their future careers. A key outcome of education is to provide graduates with the technical knowledge to conduct a job however in more recent years, a greater emphasis has been placed on the non-technical skills or softer skills that students learn in higher education. Employers are increasingly seeing the benefits of such non-technical skills to their firms, and have demanded a more developed, well-rounded graduate. Teichler (2009) claims that in order to succeed in one's chosen career, education has become an increasingly important determinant of employment and career and is a prerequisite for career success. HEIs cannot deliver on their mission of employability without support from the government.

*Apart from the education sector itself, and its staff and students, the other major stakeholder in entrepreneurship education is often government, not least because it frequently provides much of the funding.*

*(Bridge, 2017, p. 743)*

The government also have a very significant role to play in enabling the HEIs to develop employable graduates.

#### **3.4.4 Government Role in Employability**

The European Union is working towards the creation of a European Higher Education Area (EHEA) with a focus on increasing graduate employability. "Recent shifts in education and labour market policy have resulted in HEIs being placed under increasing pressure to produce employable graduates" (Bridgstock, 2009, p. 31) and governments are the key in supporting this growing demand. At a domestic level, Ireland have

developed many skills strategies aimed at educators, at employers and at graduates attempting to satisfy employability skills demands and reduce skills deficits. Examples of these include:

- Action Plan for Job 2015
- Strategy 2016-2020
- Action Plan for Education 2018
- Innovation 2020
- Ireland's National Skills Strategy 2025
- National Strategy for Higher Education to 2030

### **3.5 Challenges for Employability in Higher Education institutions**

Within the literature, there are many challenges and concerns for higher education in their attempts to produce employable graduates. In particular, when it comes to the development of employability, perceptions of outcomes, lack of collaboration between industry and HEIs, poor HEI culture and focus are cited as reasons why the embedding of employability skills can be challenging for HEIs. Embedding employability into the curriculum proves difficult, as evidenced by the literature. No consensus exists as to what are employability skills. This lack of consensus is further driven by the fluctuating demands of the dynamic labour market environment. This section examines the main challenges experienced when trying to embed a broad range of employability skills into the third-level education curriculum.

#### **3.5.1 Perceptions of Employability Outcomes at HEIs**

Investment in higher education puts pressure on HEIs to deliver graduates that employers value and thereby improving graduate employability potential Knight and Yorke (2003). The investment fosters an expectation from employers that higher education will produce the learning outcomes that employer's value. Organisations vary in their skills requirements, their cultures, their strategies, etc., and so it is inevitable that all, or even most, employers may not be satisfied with their return on investment in education and in terms of the graduates produced. HEIs and employers have different perceptions of how HEIs are performing when it comes to providing graduates with employability competencies (Bennett *et al.*, 2015). This perception is reinforced by a study conducted by Yorke (1999) where the findings show the divergence in the skills and attributes employers expect and the skills and attributes that higher education seek to deliver on.

Another problem employers face in fulfilling their employability needs is that they feel their voices are not heard by HEIs when they serve on committees (Lowden *et al.*, 2011). However, according to Richens (1999) even in situations where collaborative processes between HEIs and industry exist, the structure of education has made it difficult to implement systemic changes. Making employability a focus of HEIs can also be challenging. It requires a shift to occur in academic culture and management, as well as, a shift in employers' perceptions of HE's and in students' expectations (Rae, 2007). Even in some HEIs, Lowden (2011) states, there is a lack of systematic practice to promote employability, with some HEIs not viewing employability as an important part of their mission. Ultimately it is the view of Yorke (1999) that the skills and attributes associated with the employers' expectations are developed through the learning experiences of students in higher education.

The perception of the skills outcomes from HEIs vary greatly between various stakeholder groups. This divergence in the perceptions of skills outcomes is particularly evident from a large-scale report published by the McKinsey Centre for Government (2012). The report examined 4,500 youths, 2,700 employers, and 900 HEIs across the nine countries. The report investigated the perceptions of employability skills by the three respondent groups. The youth group comprised individuals, between the ages of 15 and 29, who had secured employment, or, who were studying, with the view to employment within the next six months. Based on survey data collected for the three respondent groups, the report found that, internationally, more than half of youths and the employers felt that graduates were not sufficiently prepared for employment upon graduation; by contrast, nearly three-quarters of education-providers felt that graduates had been adequately prepared. These differing perceptions create a big challenge for HEIs when trying to embed employability into the curriculum as discussed in the following section.

### **3.5.2 Embedding Employability in the Curriculum**

Employability, it is argued, can be embedded in any academic subject in higher education, without compromising core academic freedoms (Knight and Yorke, 2002). Yorke (2006a) argues that the curriculum alone helps embed employability but should not be viewed as a mechanism that enhances graduate employability on its own. There is a suggestion that employability is unique at an individual level. (Yorke, 2006b) believes that "Employability derives from the ways in which the student learns from his or her

experiences” (p. 7). Seeing as people learn in different ways, the experience is unique, meaning different outcomes can be expected from the same teachings for different students. The employability skills, expected from students, may not initially be apparent from the educational programmes they have undertaken. However, skills are developed as a result of the students’ experiences in third level (Yorke, 1999).

The way in which HEIs affect employability of their students varies from one institution to another. There is much debate in the literature as to how employability may be embedded into the education curriculum and, therefore, no ideal employability-oriented curriculum exists. However, the manual “Embedding Employability into the Curriculum” Yorke (2006), suggests various ways of adapting the curriculum to this end. There are five considerations to investigate:

- (1) Employability through the whole curriculum*
  - (2) Employability in the core curriculum*
  - (3) Work-based, or work-related, learning incorporated as one of components within the curriculum*
  - (4) Employability related modules within the curriculum, and*
  - (5) Work-based, or work-related, learning in parallel with the curriculum*
- (Yorke and Knight, 2006, p. 14)*

Adjusting the curriculum to incorporate, some, or at least one, of these elements, will go a long way in improving graduate employability.

The work-based elements for embedding employability into the curriculum is supported by a model developed by Dacre Pool and Sewell (2007). Research points to work experience as something employers’ value greatly in graduates. Students learn from experience in the world-of-work, and develop key skills and attributes to enhance their employability (Dacre and Sewell, 2007). Partnerships between employers and HEIs are valuable in promoting future employment prospects for graduates and in providing benefits to employers and as Gibb and Hannon (2006) claims EE has a significant impact on HEI culture and on the local community. The introduction of entrepreneurship programs can be seen as one-step in developing the knowledge-based worker for employers and for industry, in which HEIs play a central role. Furthermore, support of educational objectives from a top down approach through government policy-making level, e.g. through financial investment ensures that employability maintain a strong foot hold in education. This illustrates the interactions of the three stakeholders: academia,

industry, and government, or what is known as the “Triple-Helix Effect”. Successful triple-helix effects foster economic and social development (Leydesdorff and Etzkowitz, 1998) and develops the skills to produce the knowledge worker. Central to embedding employability into the curriculum is how the curriculum is designed.

### 3.5.3 Curriculum Design

HEIs can be proactive in meeting the demands on the students, on the employers and matching the global industry trends. Demands in courses fluctuate depending on environmental, social, and economic factors. Stephenson (1998) breaks down the expected outputs of HEIs. Stephenson (1998) argues that, HEIs should be judged on the degree to which can deliver three main criteria:

1. *Giving students the confidence and ability to take responsibility for their own continuing personal and professional development*
2. *Preparing students to be personally effective within the circumstances of their lives and work*
3. *Promoting the pursuit of excellence in the development, acquisition and application of knowledge and skills*

*(Stephenson, 1998, p. 2)*

If HEIs deliver on the three above mentioned criteria, they are satisfying expectations, according to Stephenson (1998). Developing on from simply satisfying the basic criteria for the curriculum, Bridgstock (2009) recommends further amendments to the curriculum, in order to effectively engage with the graduate employability agenda. The way in which curricula are designed needs re-thinking and requires the inclusion of a number of competencies into the existing curricula. Bridgstock (2009) suggests the solution to increasing employability into a curriculum is better links with other faculties, with employers and with careers services. This provides a pathway to facilitate embedding employability into the curriculum. Bridgstock (2009) believes that exiting curricula are restricted by a set list of generic skills required, and that, by lifting this restriction, it will enable employability skills to broaden into the realm of lifelong career development, Just as opposed to just graduate employability within the curriculum, as is currently the case. In contrast, the AHECS Report (2013) lists academic results as the most significant criteria in the shortlisting of graduates, placing a strong onus on students to achieve high grades and develop their own employability skills, throughout their time in college. The AHECS Report (2013) places a higher emphasis on the technical knowledge learned in higher education over the generic, soft skills, as mentioned by



Bridgstock (2009). However, the report does acknowledge that employers placed a high importance on graduates undertaking relevant work experience and graduates undertaking extra-curricular involvements, with regard to valued employability skills from an employer perspective.

Yorke and Knight (2006) compiled an extensive list of thirty-nine dimensions of employability, as part of the “Skills Plus Project”. The purpose of this skills list was to help education faculty departments to examine their curricula using an employability lens. These thirty-nine aspects or dimensions were grouped into three distinct categories, under the headings of: **personal qualities**, **core skills**, and **process skills**. There are ten personal qualities, twelve core and seventeen process skills. These dimensions are useful for the evaluation of the higher-level curricula in HEIs. These employability and subsequent skills should be embedded within graduate learning. Even though employability does not guarantee employment (Brown *et al.*, 2004; Clarke, 2008), embedding these skills into education programmes at higher level, goes a long way to meet the requirement of producing employable graduates.

### 3.6 Employability Models

Various models of employability will be reviewed to aid in understanding the complex concept of employability. The focus is to understand the determinants of the development of and the conceptual knowledge that underpins graduate employability. The models reviewed include the USEM Employability Framework, the CareerEDGE Model, the DOTS Model and the ENTEComp Model.

#### 3.6.1 The USEM Employability Framework

Employability models act as a guide for policy makers and for academics when identifying employability skills to include in the curriculum. It enables employability to be embedded in education programmes by identifying the key factors that support employability in graduates.

The work of Yorke and Knight (2004) can be seen as instrumental in the field of graduate employability. Their model is one of the most widely accepted and influential in the employability literature (Dacre and Sewell, 2007). The USEM employability framework was established by Knight and Yorke (2004). USEM is an acronym for four inter-related components of employability: (1) **Understanding**, (2) **Skills**, (3) **Efficacy beliefs** and (4) **Metacognition**. USEM provides a useful basis from which a curriculum for employability

can be designed. The model recommends that academics question the four key areas of the model and assess them in terms of how they apply to the relevant curricula and further recommends an audit of whether these four objectives are being met (Pegg *et al.*, 2012). The research leading to the development of the USEM model was ground-breaking in terms of identifying a working definition of the concept of graduate employability and can be seen as critical to the understanding of graduate employability and its link to higher education (Dacre and Sewell, 2007).

The USEM model by Knight and Yorke (2004) is “an attempt to put thinking about employability on a more scientific basis” (p .37). This concept of inter-relating the soft skills in the model with the “scientific” element of employability is comparable to what Reich (1991) deemed as the “symbolic analyst”. The “symbolic analyst” as a well-rounded individual with the necessary ‘soft skills’ that enables the individual to utilise their ‘hard skills’ to optimal effect (Knight and Yorke, 2002). HEIs can teach graduates about employers’ expectations and about performance within in an employment role. However, they cannot produce a perfectly rounded graduate, suitable for employers’ needs (Yorke, 2006a).

While recognising the importance of the USEM model, Dacre Pool & Sewell (2007) suggest this model has a weakness in that it is not as accessible to students and parents in explaining exactly what is meant by employability.

### **3.6.2 The CareerEDGE Model**

To address the limitations of the USEM model, Dacre Pool & Sewell (2007) proposed an alternative model. The model “The CareerEDGE model of Graduate Employability”, seeks to address the gaps identified in the USEM model. Dacre Pool & Sewell (2007) argue that the key benefit the CareerEDGE model lies in its simplicity. It can be explained with ease to any student or lecturer, or perhaps, to a parent.

The central concept to the CareerEDGE model, developed by Dacre Pool & Sewell (2007), is embedded in their definition: “Employability is having a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful”, Dacre Pool & Sewell (Dacre and Sewell, 2007, p. 280).

Dacre Pool & Sewell (2010) outline the essential skills that should apply to all graduates in their CareerEDGE model. Dacre and Sewell (2007) initially highlight five key essential components in their model. These components are:

1. Degree subject knowledge, understanding and skills
2. Generic skills
3. Emotional intelligence
4. Work and life experience; and
5. Career development learning

Dacre Pool and Sewell (2007) suggest that self-efficacy development in particular is a key concern. Graduates require opportunities, not only to access but also to develop these five components. When the opportunity is provided to reflect on and evaluate such learning experiences, the graduate ultimately develops higher levels of self-efficacy, self-confidence, and self-esteem, which have been shown to be critical to the concept of employability (Dacre and Sewell, 2007).

This model brings together many research results in one central place. As a diagnostic tool it provides “a self-report questionnaire that asks students to rate themselves on different aspects of employability” (Dacre Pool *et al.*, 2014, p. 305). Students are asked to reflect and evaluate on:

1. Career Development Learning
2. Experience (Work and Life)
3. Degree Subject Knowledge, Skills and Understanding
4. Generic Skills and
5. Emotional Intelligence

Embedded within this model are interpersonal and enterprise skills. However, despite the inclusion of enterprise skills within the model, Dacre Pool & Sewell (2010) sound a note of warning. A serious attempt should be made to define the terminology surrounding “enterprise”, “entrepreneurship” and “employability”. Failure to do so could result in students studying how to become an entrepreneur, as opposed to studying enterprise subjects, and “could even be detrimental to a graduate’s employability” (Sewell and Dacre Pool, 2010, p. 92).

The CareerEDGE model shows each element that is vital for graduate employability, and Dacre Pool & Sewell (2010) indicate that any one missing element will considerably lower graduate employability. The model has been useful in the planning of curricula and may serve to demonstrate to employers the valued role of HEIs. The model can act as reference point to direct both employers and HEIs in the ways they can contribute to increased employability, having the consequence of benefiting all relevant parties. This model aims to ensure adaptability to our changing world of work and, hence, provides an increased chance of occupational satisfaction and success.

### 3.6.3 The DOTS Model

Another widely used employability model is “The DOTS Model”. This model has been used within career-planning education for many years. It links employability and career planning. The DOT’s model was established by Law and Watts (1977). DOTS is an acronym for 1) **D**ecision Learning, 2) **O**pportunity Awareness, 3) **T**ransition Learning and 4) **S**elf Awareness. Watts (2006) summarises the planned experiences designed to facilitate the development of:

- Decision learning – decision-making skills
- Opportunity awareness – knowing what work opportunities exist and what the requirements are
- Transition learning – including job-search skills and self-presentation skills
- Self-awareness – in terms of interests, abilities, values, etc. (Watts, 2006, pp. 9–10)

To be an effective career and employability model, this model shows that an individual needs to have a good understanding of themselves, the work opportunities in their environment, develop the skills needed for their careers choice and know their strengths and weaknesses in accomplishing their chosen career. These four elements enable students to implement fully informed and sound career plans.

### 3.7 Intrapreneurship Concept

“In broad terms, intrapreneurship is entrepreneurship within an existing organization” (Antoncic, 2007, p. 310). Intrapreneurship is a concept closely related to entrepreneurship emphasising entrepreneurial process and innovativeness but with the important difference, that intrapreneurship takes place within an organisation where the intrapreneur is an employee. Another interchangeable term used for intrapreneurship is ‘corporate

entrepreneurship' (Olson, 1981). The term "intrapreneurship" was coined by Pinchot and Pinchot (1978). In their white paper, they investigated "Intra - Corporate Entrepreneurship" as an "employee entrepreneurs who work within the corporation" (Pinchot III and Pinchot, 1978, p. 3).

Other definitions of intrapreneurship exist. For example, Gibb (1996) defines intrapreneurship as:

*The harnessing of entrepreneurial behaviour within a large company or institution associated with changes in corporate culture, organisation and structures often in favour of smallness and decentralisation.*

*(Gibb, 1996, p. 310)*

This definition recognises that intrapreneurship as a corporate strategy depends on the organisation's size. Intrapreneurship is also brought about by the tireless, persistent behaviour of individuals, within organisations, who are smart and imaginative, innovators who have and who act upon successful ideas for the benefit of their organisations (Ward and Baruah, 2014). These people contribute in the areas of new products, new ventures and new business models. Ward and Baruah (2014) define intrapreneurship "as the innovative initiatives undertaken inside an organization as an effective strategy to address these complexities systematically" (p. 2). This rise in orientation towards intrapreneurship within organisations, is due to the rise in globalisation and the trend towards flatter organisational structures (Antoncic, 2007; Ward and Baruah, 2014). The expectations, competencies, economic benefits and organisational benefits that arise through intrapreneurship will be discussed in the following section.

### **3.7.1 Intrapreneurial Advantages**

Intrapreneurship can be adopted as a corporate strategy according to Ireland et al., (2009) and thus adopted as a desirable culture for organisations. The adoption of an intrapreneurial culture within an organisation expects that individuals within the organisation can adjust to the parameters of an organisational culture therefore adaptable in their attitudes. Intrapreneurial individuals are expected to be highly adaptable, innovation driven, and flexible in their approaches towards changes occurring inside, and outside, the organisation. The consequences of an intrapreneurial oriented organisation lie in having a competitive advantage over non-intrapreneurial organisations, in terms of innovation, dynamism, company growth and revenues.

One of the most important consequences of intrapreneurship is an organisation's performance, in terms of profitability and growth (Zahra and Covin, 1995). Some results of studies carried out suggest that corporate entrepreneurship has a positive impact on key financial measurements for that organisation (Zahra and Covin, 1995; Antoncic and Hisrich, 2003). Alongside the financial benefits, there are learning benefits, employee retention benefits, better strategic renewal and capability building, as well as, improved tackling of the roadblocks associated with innovation progression (Ward and Baruah, 2014). Heinonen and Korvela (2003) claim survival, growth, profitability and renewal as the beneficial outcomes of an intrapreneurial culture, especially in large organisations.

The benefits of intrapreneurship are highlighted in a study conducted by Song et al., (2016). It was found that a firm's growth could depend strongly on intrapreneurship and intrapreneurship, employee-related antecedents. Song et al., (2016) also found that intrapreneurial organisations reap many benefits in terms of financial performance, innovation and employee satisfaction. Similar to the way governments view entrepreneurial activity as being a positive contributor to the economy it is argued the same is true for intrapreneurship to the organisation.

Shane and Venkataraman (2000) claim there are two ways in which entrepreneurial opportunities can be exploited within an economy. Firstly, by the set-up of new businesses by entrepreneurs. Secondly, by the creation of new business resulting from individuals within an organisation discovering new opportunities. It is the second theory that is concerned with intrapreneurship. Cox and Jennings (1995) reflect Shane and Venkataraman's (2000) second theory by saying;

*Independent entrepreneurs may not need to be as innovative as highly successful intrapreneurs. They are, after all, not so likely to be restrained by an organisational structure of someone else's making and so do not need to challenge an existing system.*  
(Cox and Jennings, 1995, p. 7)

Clearly, there are many advantages from intrapreneurship, but it is important to establish what perceptions currently exist of intrapreneurial qualities and the environments that encourage or promote these qualities and for the purposes of this study, how intrapreneurial qualities link to employability.

### **3.7.2 Intrapreneurial Responsibility**

Antoncic and Hisrich (2003), divide existing research for intrapreneurship into three main areas. These are:

1. The intrapreneur as an individual, highlighting their intrapreneurial characteristic,
2. The creation of new ventures from within the organisation, innovating from within and
3. The entrepreneurial organisation focus on the characteristics of such organisations.

Antoncic and Hisrich (2003) highlight the role of the organisation over the role of the HEI, in being receptive to the intrapreneurial concept. In order for intrapreneurship to occur, the expectation is that organisations need to be open to new innovative minds and permit the development of new innovative ideas, providing a culture of intrapreneurship, internally, and embracing those intrapreneurial characteristics of their individual employees. Without this expectation of the intrapreneurial organisation, intrapreneurship cannot occur (Urban and Wood, 2017). Haase et al., (2015) see the benefits of developing the intrapreneur. They refer to the development of employees towards a more intrapreneurial mind-set and this intrapreneurial mind-set leads to benefits for the firm. They believe the onus of developing intrapreneurial competencies lies with the organisation. However, Hynes and Richardson (2007b) disagree with this view and feel educational institutions bear the responsibility and need to ensure that graduates are capable of acting in an enterprising manner in the workplace, either as an entrepreneur, or as an intrapreneur in paid employment. The next section examines the skills that constitutes an intrapreneur.

### **3.7.3 Intrapreneurial Competencies**

Robinson and Pierce (1984) focus on the issues small organisations experience. They suggest that small organisations lack the necessary staff competencies to engage, effectively, in strategic planning, or marketing. It is their opinion that small organisation focus on the operational aspects to survive on a day-to-day basis due to lack of competencies and lack of resources. More recently, industry and academia has recognised corporate entrepreneurship as a key phenomenon driving the revival of companies performance, and positively impacting on their profit margins (Zahra and Covin, 1995). A report by Charney and Libecap (2000) shows that EE is a great facilitator in promoting the transfer of skills from higher education to the private sector. There is strong evidence

to suggest that EE contributes to the growth of organisations, particularly small organisations. Typically, small organisations that employ entrepreneurship graduates have higher sales and higher employment growth than those organisations that employ graduates with a non-entrepreneurship background, as students with EE have a greater appetite and a greater aptitude for innovating (Charney and Libecap, 2000). According to Ireland (2004) entrepreneurial skills and attitudes are necessary for starting and running a business, but they are also assets in an employment context Enterprise Strategy Group.

Vargas-Halabí et al., (2017) identify five sub-dimensions of employee attributes that they consider to be intrapreneurial competencies. These are:

1. Opportunity promoter
2. Proactivity
3. Flexibility
4. Drive
5. Risk taking (Vargas-Halabí *et al.*, 2017, p. 96)

Their model for intrapreneurial competencies helps to identify key skills that are useful in the business setting; in particular, they are useful as a diagnostic tool to strengthen the development of certain skills for those who work in areas that require innovation or the creation of new businesses ideas for the company. Providing an environment where the intrapreneur is embraced is vital in encouraging the developing of their skills. Adopting an intrapreneurial culture in a firm enables the intrapreneur.

#### **3.7.4 Intrapreneurial Organisation**

Organisations vary in the level to which they are entrepreneurial (Antoncic and Hisrich, 2003). This has implications for the entrepreneurial graduate and for employment within these types of organisations. Organisations may place graduates on a scale of most-to-least employable, based on their intrapreneurial skills however Kuratko (2005) believes that an “entrepreneurial perspective can be developed in individuals” (p. 578). This perspective gives rise to the corporate entrepreneur or intrapreneur who can generate creative ideas within an organisation. Organisational culture can drive significant benefits by adopting intrapreneurial strategies. Benefits which may accrue may consist of learning benefits, employee retention, strategic renewal and capability building (Ward and Baruah, 2014). Employees who demonstrate such skills may have an advantage in being employed



over and above those candidates who do not demonstrate intrapreneurial skills. However, Dacre et al., (2010) acknowledge that not every employer admires entrepreneurial skills and not every employer wants every employee to act as an entrepreneurial individual within their firm. Employers may feel that entrepreneurial employees may be more willing to take risks with their business, ultimately, impacting on firm profits.

The term “intrapreneur” has been applied to describe such individuals, who are recruited into or developed within existing businesses to perform the entrepreneurial role. This is a somewhat specialised role, which includes the risk-taking element and may result in a “competitive aggressiveness with industry rivals” (Antoncic and Hisrich, 2003, p. 18) which would be appropriate for some, but not all, graduates. What is highlighted as warning is that “some employers are suspicious of students who show too much ‘enterprise’ and are more concerned with recruiting people who will ‘fit in’ and conform to the organisation’s culture and mores” (Watts and Hawthorn, 1992, p. 14). Some “Colleagues may even think of intrapreneurial employees as being rebellious” (de Jong and Wennekers, 2008, p. 38). The concepts of proactiveness and innovativeness imply ignoring, or even being somewhat rebellious toward, existing rules and regulations (de Jong and Wennekers, 2008). Skills associated with corporate entrepreneurship are risk taking, innovation, and aggressive, competitive action (Zahra and Covin, 1995) innovation, proactiveness and risk taking (Covin and Slevin, 1991). Ward and Baruah (2014) recognise intrapreneurs as the people who contribute in the areas of new products, new ventures and new business models. This can positively impact not only the firm, but also the economy. It can encourage the introduction of new products/services and with the identification of new markets within which the organisation can sell into.

### **3.7.5 Intrapreneurship Economic Benefit**

In the strategies outlined in the government’s National Strategy for Higher Education (2011), it notes, there is a great need to foster core entrepreneurial competencies and to produce adaptable individuals, capable of adjusting to the changing economic environments of the future. The government’s National Strategy for Higher Education (2011) recognises that the sustainability of the Irish economy relies on the success in supporting enterprise at home and continuing to remain a positive FDI attraction for leading multinational companies. The HEIs can play a vital part in this economic development and continued sustainability National Strategy for Higher Education (2011).

As Yorke (2006a) outlines, there has been an established link between education and economy for many years.

From the literature, we have identified the link between entrepreneurship and intrapreneurship, through a commonality of skills. The difference is that intrapreneurship is demonstrated within an employer organisation. The skills learned through EE can be identified as skills enabling a person to be both entrepreneurial and intrapreneurial. While the focus of entrepreneurship programmes is to increase the number of graduates who will start a new business, and ultimately benefitting the economy. It is important to remember that start-up companies are not the only outcome or always the most important outcome of EE. EE can also help foster students' skills that can be beneficial to organisations by adding value through intrapreneurial activity (Enterprise Ireland, 2016). Ireland still holds a unique position, globally, as multinational companies view our graduates as more than competent to meet their strategic business objectives.

In delivering this competitive economic advantage for the Irish economy, people will need support in the development of skills and knowledge that aid in the creation of employment and that attract employment investment. The Government's (2008) Smart Economy Report outlined the intersection of the economy, of entrepreneurship and of employment:

*The objective is to make Ireland an innovation and commercialisation hub in Europe – a country that combines the features of an attractive home for innovative R&D-intensive multinationals while also being a highly-attractive incubation environment for the best entrepreneurs in Europe and beyond. This will be the successful formula for the next phase of the development of the Irish economy and for delivering quality and well-paid jobs.*

(Department of the Taoiseach - Ireland, 2008, pp. 7–8)

In particular, in times of rising unemployment among those who are highly educated, questions have been raised about the ability of graduates to meet the needs of the employers and the labour market. Employers prefer to engage graduates who are knowledgeable, resourceful, ethical, communicative, and, who can add value to their organisation. The employability study conducted in Croatia against which this study is replicated, confirmed that an entrepreneurial mind-set positively influences future employment prospects and the self-employment opportunities of graduates (Sedlan König *et al.*, 2016).

### 3.8 Dimensions of Employability Skills

In this section, the specific skills identified in several studies of graduate employability are reviewed. What constitutes employability skills is still not widely agreed. The employability skills, discussed in this section, are taken from the literature and are categorised as follows: those desired by employers: the skills that are lacking (skills gaps) and, those skills, with which employers are most satisfied. It is important to consider the views of graduates and to identify what they believe their skills to be, or those skills required to be successful in the workplace.

#### 3.8.1 Skills Concept

Graduate attributes are the qualities, skills and understandings a HEI community agrees its students should develop during their time with the institution. These attributes include, but go beyond, the disciplinary expertise or technical knowledge that has traditionally formed the core of most HEI courses. They are "qualities that also prepare graduates as agents for social good in an unknown future." (Bowden *et al.*, 2000, p. 1). Even though graduate employability is a concept that has received considerable attention within Higher Education (Tomlinson, 2012), there is limited empirical research on employer perceptions of entrepreneurial skills and their perceived impact on graduate employability "preparing students for an uncertain work/life future" (Henry, 2013, p. 837).

It is suggested that EE may yield "super skilled" graduates, who will be entrepreneurially effective and capable of thinking creatively, of solving problems, of analysing business ideas, of identifying opportunities, of innovating, of effecting economic growth, of empowering others and of creating jobs and value for society (World Economic Forum, 2009; Henry, 2013). There is increasing pressure on HEIs from all sectors of society to produce graduates to develop effective programmes that harness graduates enterprising skills and employability according to Dacre et al., (2010). Yorke (1999) argues, that the HEIs are accountable for preparing students for employment within organisations. This opinion is shared by Rae (2007). For example, he believes enterprising students and graduates are generally regarded as more employable than those without enterprise skills. This perception again reflects the "corporate entrepreneur" or "intrapreneur" who can develop creative ideas within an organisation. The main stimuli for students to enter higher education are generally to attain a degree and to achieve employment (Dacre and Sewell, 2007) and skills development. Generally, skills can be divided into two types of

skills, categorised into “hard” and “soft” skills and are a by-product of attaining one’s degree. These skills are discussed in more details below.

### **3.8.2 Hard and Soft Skills**

The terms hard and soft skills are used interchangeably and align with the terms, subject, technical, knowledge bases (hard) skills and transferable, generic, non-technical (soft) skills. The literature suggests two aspects to employability, the first aspect refers to subject-specific skills and the second aspect refers to transferable skills. Transferable skills pertain to particular individual traits, which can be transferred from one job to the other, while subject-specific skills are more associated with a specific field of study or profession (Cox and King, 2006). Students will generally leave higher education with good knowledge of their field of study, i.e. subject skills. However, the possession of subject skills alone, in today’s challenging labour force, is no longer adequate to meet with employers’ requirements. Increasingly, it is essential to develop transferable skills which enhance the students’ prospects for employment (Cox and King, 2006). Interestingly, Schulz (2008) warns that too much emphasis on soft skills can negatively impact employability, particularly in some professions, where soft skills are secondary to technical knowledge.

What do employers want from graduates? Employers place a higher emphasis on generic skills developed as a result of higher education, over and above the discipline in which the qualification was acquired (Yorke, 2006a). Increasingly, the literature reports the argument that students should be provided the opportunity to develop their non-technical, softer skills over the opportunity to develop the application of their technical, harder skills at higher level. “It is these skills that are sometimes considered to be the best predictors of job performance” (Rosenbaum, 2002, p. 10). This is based on the observation that employers describe work habits as more important than academic skills. This argument finds support by Graham (2017), where it was shown that employability skills sought by employers were mostly “soft” and therefore, behaviours, rather than “hard” teachable skills, were most desired. As is noted by (Maher, 2004), employers are more interested in what a graduate can do, as opposed to what the graduate knows. This is also highlighted by Clarke (2008) as “organisations that are able to tap into a ready supply of employees with highly developed generic skills are able to compete more successfully than those that focus on the retention of employees with firm-specific skills” (p. 259). Clarke (2008)

identifies not only an employer wish-list of skills but also outlines the beneficial effects that highly developed soft skills can have on an organisation. Both employers and graduate recruiters, consistently emphasise the value of generic, soft skills as key drivers to the selection process, but they are also drivers in the attainment of long-term career success and they aid in the ease of movement between work roles (Clarke and Patrickson, 2008) and have a positive organisational impact (Clarke, 2008).

Graduates share the same view as employers about soft skills and they understand that employers are placing a greater emphasis on soft skills in employee recruitment (Nilsson, 2010). A study, undertaken by Nilsson (2010) investigated engineering students views of employability skills. Where the employability skills of engineering students are typically associated with technical knowledge. The results of the study show, that hard, formal, and technical, vocational skill were considered to be declining in importance. Nilsson (2010) states that these skills are now considered less important in relation to an individual's employability compared to different forms of soft skills and personal attributes. However, soft skills on their own are not sufficient. Amoud et al., (2010) highlight the importance for balance between the hard and soft skills:

*The role of higher education in this context is to equip students with skills and attributes (knowledge, attitudes and behaviours) that individuals need in the workplace and that employers require ..... at the end of a course, students will thus have an in-depth knowledge of their subject as well as generic employability skills.*

*(Amoud et al., 2010, p. 3)*

The individual skills that constitute soft skills are debated in the literature with varying levels of agreement for some skills. The next section explores the generic skills that are listed as employability skills according to the various authors.

### **3.8.3 Employability Skills**

Agreement upon a list of the most desirable set of employability skills has not been reached. Many lists exist and much research has been conducted in order to determine employability skills, those most desired by employers and those, which graduates believe they have upon graduation. One such study is by Wellman (2010). He identifies a composite list of graduate skill requirements. Fifty-two attributes were identified as being the most desirable employability traits amongst marketing graduates. Within the Fifty-two attributes, sixteen clusters were identified. These clusters were divided into skills and

traits. Common desirable employability skills included communication, interpersonal relationships, information technology, planning, self-management, decision-making and problem solving. The most favourable personal traits were identified as creativity, responsibility, initiative, determination and confidence, were commonly required traits. There is a clear distinction between technical skills and qualifications and non-technical attributes. Employers not only look for the hard, technical knowledge associated with educational learning, but also seek the generic skills that pertain to personality and learned skills.

Brennan et al., (2001) establish a list of employability skills. Out of thirty-six skills, they listed below the top twelve skills from a student's skills perspective upon graduation. These are: 1) Learning abilities; 2) Working independently; 3) Written communication skills; 4) Working in a team; 5) Working under pressure; 6) Accuracy, attention to detail; 7) Power of concentration; 8) Oral communication skills; 9) Problem-solving ability; 10) Initiative; 11) Adaptability; and 12) Tolerance (Brennan *et al.*, 2001, p. 21). Interestingly, employers cite the follow skills and competencies as the most desirable skills that they seek in graduates; 1) Working under pressure, 2) Oral communication skills, 3) Accuracy, attention to detail, 4) Working in a team, 5) Time management, 6) Adaptability, 7) Initiative, 8) Working independently, 9) Taking responsibility and decisions 10) Planning, co-ordinating and organising. Comparing both sets of top skills that graduate believe they possess upon graduation and the skills most desired by employers from the UK that we can establish a common list. The commonalities between both groups are, working independently, working in a team, working under pressure, accuracy, attention to detail, oral communication skills and adaptability. The results of the study by Brennan et al., (2001) indicate that employers list six out of the top ten skills that graduates believe they have attained upon graduation,. This seems to indicate that the outcomes of employability education embedded in the curriculum is in line with the skills and competencies employers demand in the UK.

Another set of skills that are examined are from The ARG Report (2016). The report identifies nine key areas that employers list as important for employability and evaluate those skills based on competency gaps. Employers surveyed showed that the share of graduates that possessed these skills when entering the firm were below employer expectations. With the exception of teamwork, employers felt that they had to train new

hires to develop eight out of nine of the core skills. The ARG Report (2016), showed the greatest perceived skills gap existed for negotiating/influencing skills where employers felt that this skill is heavily influenced through learning within the organisation. For example, 51% of employers tailor their recruitment to find candidates with negotiating/influencing skills, but only 11% of employers hire graduates who actually have these skills. According to the report, there can be massive deficits in certain skills areas and an example of this is, that 92% of employers must train graduates in negotiating/influencing once in the job.

The AHECS Report for Ireland (2013) also lists nine important employability skills, with teamwork as the most important skill identified when it comes to graduate recruitment. Interestingly the ARG Report (2016) and the AHECS Report for Ireland (2013) highlight teamwork as the most important employability skill in graduates and it is also this skill that requires the most amount of development in graduates when entering an organisation. Both reports indicate that communication and problem solving are essential employability skills.

Bridgstock's (2009) conceptual model of graduate attributes for employability recommends the skills that are important for the enhancement of graduate employability and suggests how career management for maximum employability plays an integral part in this. The relevant skills identified were, self-management skills, career building skills, generic skills, discipline-specific skills, employability skills, alongside underpinning desirable traits and dispositions.

Cotton (1993) organised "critical employability skills" into the three categories of basic skills, higher-order thinking skills, and affective skills and traits. She listed, oral and written communication, reading and basic arithmetic as the basic skills. Problem solving, learning skills, creative and innovative thinking, decision making as higher order thinking skills and responsibility, positive attitude towards work, punctuality, interpersonal skills, self-confidence, working as a team member, ability to work without supervision, and adaptability/flexibility as some of the affective skills and traits.

Gibb (2002) argues that the skills developed throughout graduate learning in higher education. (E.g. communication, problem solving, teamwork, self- management, presentation, planning, and self- management) fit nicely with calls from industry groups

representing the needs of future employers. This appears to be well supported from my analysis. Through investigating the top employability skills, we can see in Table 3.1 that, communication, teamwork, decision-making, working independently, problem solving, creativity, adaptability and planning are the traits that appear most frequently in the literature pertaining to essential employability skills. We can see that, communication, teamwork, problem solving and planning are common to Gibb's (2002) list and to the most frequently cited essential employability skills.

(Sewell and Dacre Pool, 2010, pp. 91–92) suggest a comprehensive list of generic enterprise employability skills:

- Imagination/creativity
- Adaptability/flexibility
- Willingness to learn
- Independent working/autonomy
- Working in a team
- Ability to manage others
- Ability to work under pressure;
- Good oral communication
- Communication in writing for varied purposes/audiences
- Numeracy
- Attention to detail
- Time management
- Assumption of responsibility and for making decisions
- Planning, coordinating and organising ability
- Ability to use new technologies
- Commercial awareness
- Initiative
- Problem Solving
- Identifying and working on opportunities
- Leadership
- Acting resourcefully
- Responding to challenges



Many of the skills listed here are common to those listed by Brennan et al., (2001). They are a combination of generic, soft skills and technical, hard skills. The purpose of these sets of skills outlined in Sewell and Dacre Pool's (2010) CareerEDGE model is to embed employability, including "enterprise skills" as a fundamental component of academic provision, at all levels, and allowing graduates to have access to opportunities that will enhance their employability. These skill sets allow the delivery of the curriculum to maximise employability by including such skills in educational programmes.

**Table 3. 1: Employability Skills in the Literature**

Cotton (1993)	Brennan et al., (2001)	Dacre et al., (2010)	Wellman (2010)	AHECS Report for Ireland (2013)	AGR (2016)
Orla communication	Working under pressure	Imagination/creativity	Communication	Teamwork	Managing up
Reading	Oral communication skills	Adaptability/flexibility	Interpersonal Relationships	Communication	Dealing with conflict
Arithmetic	Accuracy, attention to detail	Willingness to learn	Information Technology	Literacy	Negotiating/Influencing
Writing	Working in a team	Independent working/autonomy	Planning	Positive Attitude	Commercial awareness
Problem solving	Time management	Working in a team	Self-Management	Business Awareness	Business Communication
Learning skills	Adaptability	Ability to manage others	Decision Making	Customer Awareness	Self-awareness
Creative thinking	Initiative	Ability to work under pressure	Problem Solving	Problem Solving	Problem Solving
Decision making	Working Independently	Good oral communication	Creativity		Interpersonal Skills
Responsibility	Taking responsibility and decisions	Communication in writing for varied purposes/audiences	Responsibility		Teamwork
Positive attitude towards work	Planning, co-ordinating and organising	Numeracy	Initiative		
Conscientiousness		Attention to detail	Determination and Confidence		
Interpersonal skills/Teamwork		Time management			
Adaptability/Flexibility		Assumption of responsibility and for making decisions			
Enthusiasm		Planning, coordinating and organising ability			
Self-discipline/Self-Management		Ability to use new technologies			
Appropriate dress		Commercial awareness			
Honesty					
Ability to work without supervision					

The skills presented in the above Table 3.1, are a list of ideal or necessary skills as identified from the literature and which lead to employment fulfilment and career success. All other things being equal, if a graduate has some, or all, of these skills and qualities he/she can be said to be employable and are more likely to gain employment. Having identified what skills are desirable for employability, next to investigate is how these skills are developed.

#### **3.8.4 Skills Development Considerations**

It is important to heed Schulz's (2008) warning that there is a risk of over emphasises on the development of soft skills. This study by Schulz (2008) recognises that soft skills can be difficult to define and that soft skills can mean different things to different people and that this meaning is highly dependent on the context. He differentiates between the "nice to have" and the "must have". For example, it is necessary to have project management skills for an event coordinator, but not so much for an events promotor. However, Schulz (2008) determines that soft skills can be identified by three main skills groupings, namely, personal qualities, interpersonal skills, and additional skills / knowledge. Some skills are intrinsic, developed within the individual with little or no control over them and some are extrinsic skills, developed because of external factors, for example education. The GUESS Report (2016) indicates that transferable, soft skills are a by-product of education and are facilitated through the students' experiences in third level education.

Dacre et al., (2010) are also concerned about developing certain generic, soft skills. They are concerned that some graduate skills, particularly entrepreneurial skills and attributes, can negatively influence graduate employability. Competencies developed by graduates who concentrate their studies more towards the entrepreneurial field (which are softer skills by their nature) run the risk of a damaging their chances of employment compared to those graduates who study enterprise (harder skills by their nature). Enterprise education over EE is said to sit more comfortably in terms of employability, according to Dacre et al., (2010). Where enterprise is associated with the study of business as opposed to entrepreneurship which is the "desire, motivation and skills necessary to start and manage a successful business" (Sewell and Dacre Pool, 2010, p. 92). A recent study conducted by Bell (2016) supports this theory. The study shows that some attributes, typically associated with entrepreneurship skills in particular, such as non-conformity, innovativeness, and self-efficacy, were shown not to be particularly beneficial to

graduates attaining managerial level employment subsequent to their graduation. Bell (2016) argues that the literature states that managers are more conformists than innovators. The development of certain types of soft skills, those associated with entrepreneurial skills, can negatively impact employability. Bell (2016) is concerned that by developing these non-conformist and entrepreneurial traits in higher level education, it could alienate the graduate from potential employment. It is important that educators and graduates can identify undesirable or non-conformist, entrepreneurial traits when seeking employment. By identifying these attributes, graduates can carefully express these generic traits in such a way that does not reduce their employability.

In considering the development of skills, it may be assumed that “enterprising skills” are competences that most employers would value in a graduate. Rae (2007) warns that ambiguity exists on whether employers value an individual who seeks to be “entrepreneurial” within an organisation. This claim is supported by Watts and Hawthorn (1992). They highlight “some employers are suspicious of students who show too much ‘enterprise’ and are more concerned with recruiting people who will ‘fit in’ and conform to the organisation’s culture and mores” (Watts and Hawthorn, 1992, p. 14). The literature clearly shows that it is in an organisation’s best interests to practice an openness to entrepreneurial skills. They reap the benefits through enjoying greater profits, innovations and levels of job satisfactions. Imparting a balance of skills is essential. By identifying the skills that employers may have concerns over and carefully communicating these, in a context that is applicable to the organisation, is critical in communicating and maximising one’s employability.

There is however, a broad consensus in the literature that soft skills are critical to any graduate seeking employment in the new world of work. Most employers are becoming more aware of the critical impact that these skills are having on their organisation and in securing a competitive edge. Many skills gaps still exist despite agreement on the value of certain skills within the literature. These skills and the reason for these gaps are explored below. Armed with such knowledge we can endeavour to bridge these skills gaps.

### **3.8.5 Skills Gaps**

The SCANS report (1991), whose primary objective is to help teachers identify how the curriculum must enable students to develop skills needed for the workplace, found that

students believed that employment skills were learned on the job, learned through participation in extracurricular activities, or learned simply by osmosis. However, Rosenbaum (2002) noticed that, if students do not learn basic employability skills before they are hired, they may not have the opportunity to learn them on the job, since employers may be reluctant to invest in training for these skills. It seems that if nothing is done to improve educational performance, the gap between skills and attributes needed by the industry and the skills and attributes received by students will continue to grow (Richens, 1999; Plastrik *et al.*, 2003). The national Employers Skills Survey for the UK (2006) cites the main reasons for skills gap in graduates is lack of experience. The research and literature cite many of the main skills deficits experienced by employers.

- The largest skills gaps according to the AGR Report (2016), were seen in the areas of managing up, dealing with conflict, commercial awareness, business communication and self-awareness.
- Largest competency gaps according to a study conducted by Brennan et al., (2001) were; 1) Negotiating, 2) Taking responsibilities, decisions, 3/4/5) Planning, co-ordinating and organising; Assertiveness, decisiveness, persistence; Time management, 6) Applying rules, 7/8) Computer skills; Leadership, 9) Oral communication skills and 10) Working under pressure.
- The AHECS Report (2013) reports that communication and literacy, business and customer awareness and self-management as the skills which need the most improvement in graduates.
- The Skills Needs Assessment for Health and Fitness (2005) is comprehensive in its assessment of the competencies both desired by employers and lacking in employees. The report indicates what employers regard as employable skills across England. The results show that some skills are difficult to find in potential new recruits, they list these as: Team work (31%), communication (38%), technical and practical (50%), customer handling (36%), problem solving (29%), relevant qualifications (4%), management (19%), literacy (23%), personal attributes (5%), general IT (11%), numeracy (19%), and foreign languages (7%).

Only 11% of employers indicated they do not experience any particular skill shortage with regard to graduate employees.

Skills deficiencies are one problem, but surpluses can also occur in skills available. The largest competency surplus according to Brennan et al., (2001) are, 1) Foreign language proficiency, 2) Field specific theoretical knowledge, 3) Broad general knowledge, 4) Creativity, 5) Learning abilities, 6) Field specific empirical knowledge, 7) Manual skills, 8) Analytical competencies, 9) Critical thinking and 10) Cross-disciplinary thinking. This list of surplus skills highlights even further, the gap that exists between, what HEIs provide and what employer's desire from graduates. There is only one attribute that appears in the skills surplus list that also appears on many of the lists of skills that employers most desire. That skill is creativity. Where there is an under supply of certain skills, these gaps have to be filled, knowing how to do this is proving difficult. Surplus of skills on the other hand, means that other areas that might add to employability are being neglected. The following section addresses some solutions to this problem.

### **3.8.6 Bridging the Skills Gap**

Business schools are facing criticism from students, employers, and even educators themselves, for failing to teach graduates the appropriate skills and failing in their ability to enable graduates to get desirable employment (Bennis and O'Toole, 2005). While it can be agreed upon that many employers may desire certain sets of skills when hiring, it must be acknowledged that other factors exist, outside of skill set, which influence an employer's choice when hiring. Social skills learned outside of formal education, or factors, like nepotism, can contribute to choices in hiring individuals, over and above their educational skills and qualifications (Teichler, 2009). So how can this gap be addressed?

Firstly, participation in education is essential in bridging any gaps that exist to improve one's employability. Whilst the majority of students are unlikely ever establish their own business, it is important as they are capable of making a unique, innovative and valuable contribution to her/his employment (Carey and Matlay, 2011). Education is a social function undertaken by individuals to adequately prepare them for the demands in coping successfully with work. Education is the single-most-determining factor in employability over the past two hundred years (Teichler, 2009). Learning the soft skills associated with employability skills is a by-product of education (Enterprise Ireland, 2016).

Secondly, (Schulz, 2008) notes that extra-curricular activities can enhance soft skills and narrow the skills gap for employability. Schulz (2008) suggests that students are encouraged to take part in societies, extracurricular courses, and Toast Masters, to broaden their horizons. Taking part in such activities, not only develops their soft skills, positively affecting their employability, but also is an impressive Curriculum Vitae (CV) entry essential for making a graduate stand out from the rest of the job applicants.

Thirdly, identifying the ways in which employability can be integrated into the curriculum is vital in bridging any gaps. The link between education and employment is examined under two structures according to Teichler (2009), vertical and horizontal structure. The vertical structure examines the relationship between employment and the subjects. Meaning in that the subjects and studies you choose impact your career. The horizontal structure examines the link between the level of education and occupation, meaning that the higher the level of education the more senior the position in your occupation (Teichler, 2009). Making the provision for an identifiable vertical and horizontal structure, through higher education ensures graduates have more employment options upon graduation. A structure already exists in many institutions that addresses the horizontal structure however the vertical structure can be enabled by educators having a key role in highlighting the soft skills deficit in students (Schulz, 2008). By raising awareness of the importance of soft skills to students, these can be incorporated into the teaching and learning of hard skills, combining both and producing graduates that are more employable.

### **3.9 Conclusion**

Chapter 3 provides a review of the literature that has, thus far, shaped the understanding of graduate employability. Several models regarding the conceptualisation of employability are presented in this chapter. Given the scope of the study, those sources deemed most relevant to graduate employability were utilised in order to identify the skills that are seen in graduates at HEI level, those desired by employers, and those that are lacking according to employers. From the literature, it is evident that there is indeed little consensus on the construct of employability, but that its importance in the 21st century cannot be overstated. Chapter 4 provides insight into the specific research methodology used to conduct the research.

## **Chapter 4 – Methodology**

### **4.1 Introduction**

This chapter addresses the research question and objectives. It considers what “research” is and considers the theoretical and conceptual issues pertaining to the research design. Various methodological approaches addressed in the literature will be discussed with particular attention on their application to the current research study. The chapter will outline the research design and methodological decisions made to conduct this study. Finally, the implementation of the research instrument is described, with specific reference given to measurement scales, pilot testing, surveys and sampling techniques and why they were chosen for this study.

This thesis adopts a strong positivist methodological approach in attempting to achieve the core objectives. A questionnaire survey, which comprised both open and closed questions, was administered to thirty-nine educators, thirty employers and one hundred and sixty-one students in the Republic of Ireland. Based on the literature review, a conceptual framework was developed which suggested the employability skills to evaluate. Furthermore, from the literature, entrepreneurial skills could be identified within the list of employability skills that warranted more in-depth analysis.

### **4.2 Research Objectives**

#### **4.2.1 Research Question**

The research question for this study is to explore the learning outcomes of EE from an employability perspective. The dependent variable therefore is performance as measured through conventional means such as the level of importance of certain skills and the contribution HEIs to the development of these skills on reaching graduation. The independent variables include factors that impact on the nature of employability, for example, weight placed on certain skills by respondent groups, area of study in higher education, participation in extra-curricular activities, levels of confidence, exposure to entrepreneurship initiatives on campus and whose responsibility is it to make students more employable. The overall research can be formulated as:

“An investigation of the impact entrepreneurship education on graduate employability”



#### 4.2.2 The objectives of the research are as follows:

1. To establish which employability and entrepreneurial skills are deemed most desirable for graduates to make them employable
2. To determine if there is consensus amongst the employability skills valued by employers, educators and students'
3. To examine the level to which HEIs are expected to play in the development of graduate employability skills
4. To compare the outcomes of the Croatian study to the Irish outcomes found in this study

#### 4.3 Choosing a Research Methodology

When we look at research definitions we see (Collis and Hussey, 2013, p. 2) define research as “a systematic and methodical process of enquiry and investigation” with the intended result of “increasing knowledge”. There is a consensus among research methodology textbooks that the purpose of research is to investigate a research question with a view to generating knowledge. For example Saunders et al., (2009) described research as “something that people undertake in order to find out things in a systematic way, thereby increasing their knowledge” (Saunders *et al.*, 2009, p. 5).

Once research questions or objectives are determined, researchers need to find the most appropriate methods for collecting and analysing research data and then apply them rigorously (Kothari, 2004; Collis and Hussey, 2009). This ultimately results in the creation of new knowledge (Collis and Hussey, 2009). Researchers use this knowledge to form an objective conclusion, which can be used to benefit an organisation, the market or the economy (Zikmund *et al.*, 2013).

When conducting research to understand how entrepreneurial skills are valued and how HEIs contribute to entrepreneurial skills, the researcher is faced with an array of different types and methods of gathering and analysing data. Research is thus a voyage of discovery from the known into the unknown (Kothari, 2004). The first step of the research process in this study was the formulation of the research objective and research questions, (Kumar and Phrommathed, 2005; Saunders *et al.*, 2009) from that a research methodology was determined.

Research may be classified according to its “purpose” and therefore a research strategy is determined by the nature of the research question and when faced with the choice of available methodologies, the main principle informing the research should be that the method used fulfils the information to complete a study (Gill and Johnson, 2010). There are a number of methodological approaches or strategies available, each of which has its own advantages and disadvantages and inherent strengths and weaknesses (Brewer and Hunter, 1989). In fact, each style of social research has a purpose for which it is particularly well suited but there is no single best method of research that appropriately fits between specific research projects and research methods.

It is therefore necessary to differentiate between the various methods and their relevance to the topic under review. As such the researcher must choose between the various approaches considering the nature and context of the research problem and the extent of available resources (Gill and Johnson, 2010). This in turn forces the researcher to choose an appropriate tool to achieve their research objective. There are two main research paradigms or philosophies. The two paradigms approaches can be labelled positivist and phenomenological. The most common terms used for research approaches are quantitative and qualitative, objective and subjective to name a few. Table 4.1 summarises the key differences between the positivist and phenomenological research viewpoints according to Easterby-Smith et al., (1991).

**Table 4. 1: Differences between the Positivist and Phenomenological (Naturalistic) Viewpoints**

	<b>Positivist Paradigm</b>	<b>Phenomenological Paradigm</b>
Basic Beliefs	The world is external and objective	The world is socially constructed and subjective
	Observer is independent	Observer is part of what is being observed
	Science is value free	Science is driven by human interests
Researcher Should:	Focus on Facts	Focus on Meaning
	Look for causality and fundamental laws	Try to understand what is happening
	Reduce phenomena to simplest elements	Look at the totality of each situation
	Formulate hypotheses and then test them	Develop ideas through induction from data
Preferred methods include	Operationalising concepts so that they can be measured	Using multiple methods to establish different view on phenomena
	Taking large samples	Small samples investigates in depth over time

*(Easterby-Smith et al., 1991, p. 27)*

#### **4.3.1 Qualitative Data**

Qualitative research can be described as the approach to the world “out there” (Flick, 2009a), and aims to explore the attitudes, behaviour and experiences of social phenomena “from the inside” (Dawson, 2009), by getting an in-depth opinion from a range of participants. Qualitative research uses text as the empirical material as oppose to quantitative research that uses numbers. Because of this qualitative research can be described as:

*Less artificial and less superficial than quantitative research and can provide highly valid data. It aims to get below the surface, beyond the ‘top of the mind’, rational response*

*(McGivern, 2009, p. 162)*

Qualitative methods are also often useful as an exploratory phase of research. Qualitative data analysis is essential when the researchers have little knowledge about the area of investigation and where the social context of people’s lives is of critical significance (Liamputtong and Ezzy, 2005).

When looking to collect qualitative data about the area of study, there are several methods, which the researcher can use. These include surveys, interviews and focus groups.

The data collection method employed for this research survey for many reasons. The reasons are outlined here. One of the main advantages of a survey is that it gives the researcher the opportunity to produce data based on real-world observations as well as providing:

*A large amount of data in a short time for a fairly low cost. Researchers can therefore set a finite time-span for a projects, which can assist in planning and delivering end results*

*(Kelley et al., 2003, p. 262)*

Surveys are also very broad. The collector has the benefit of obtaining a wide span of a representative sample, meaning less responses from a narrow population or demographic. The collector can then get a wide sample, which is more representative of the general population.

The qualitative research approach can have many downfalls. An area of concern is the possibility of misinterpreting the meaning of qualitative data when analysing it. During the process of coding the data, there is a possibility that the words or images can be taken out of context. Therefore the meaning of the data is lost or transformed (Denscombe, 2003; Rahman, 2016). Another area of concern is the researcher's interpretive skills; it is possible that more than one explanation is valid. Rather than a presumption that there must be only one correct explanation, it allows for the possibility that different researchers might reach different conclusions, even though both researchers have used broadly the same methods (Denscombe, 2003). Rahman (2016) highlights some other areas for consideration when using qualitative survey research techniques. These place more meaning on experiences rather than the context placed on the situational circumstances of the respondents. Policy makers may not hold the results in high esteem, as quantitative orientations are frequently given more regard, in some sectors, and in some cases, collection may take some time.

#### **4.3.2 Quantitative Data**

Quantitative Research is the collection of data in a structured and standardised way using methods such as a survey or a structured interview and presenting the results in a numerical format using tables, graphs or charts (Dawson, 2009; McGivern, 2009). Quantitative research can be used to:

*Address the objectives of conclusive research enquiries. It provides sparse descriptions of a relatively large number of cases*

(McGivern, 2009, p. 46)

Surveys are a method of quantitative analysis. They gather information directly by asking people a set of predetermined questions and using their responses as data for analysis. Surveys allow for the collection of a large amount of data from a large population of respondents however often response rates are not as high as expected due to the number of surveys received by individuals making them reluctant to complete them (Wisker, 2008).

The downfall of qualitative research is its lack of flexibility as the collection of data is extremely structured and standardised and can “produce superficial rather than detailed description and understanding” (McGivern, 2009, p. 47). Closed questions are often used in the collection of quantitative data and as a result, the researcher misses the respondents own words and view point, contributing to lower validity (McGivern, 2009). To overcome this issue an open question can be placed at the end of a closed question to extract more information from the respondent. Rahman (2016) notes many disadvantage for quantitative surveys. In summary, he notes the main reasons are that this approach can only take a snapshot in time and fails to ascertain deeper underlying meanings and explanations as reasons cannot be explained in this form.

#### **4.3.3 Qualitative versus Quantitative Research**

Qualitative research is concerned with finding the answer to questions that begin with “Why”? “How”? “In what way”? Quantitative research is concerned with questions about, “How much”? “How many”? “How often”? and to “What extent”? One issue that all researchers are confronted with is which research method to use. There are justified reasons why either method is appropriate which usually depend on the area of study. Qualitative research is often more flexible and fluid in its approach than quantitative statistical methods. However, as a result of this it can be argued that it makes qualitative research less worthwhile because it is not governed by clear rules and guidelines (Liamputtong and Ezzy, 2005). Researchers have also argued that the results lack the reliability and validity of quantitative results:

*The interpretative nature of qualitative data makes it ‘soft’ science, lacking in reliability and validity, and of little value in contributing to scientific knowledge in general.*

*(Liamputtong and Ezzy, 2005, p. 2)*

In many cases, qualitative methods were developed because of critiques of quantitative methods and research strategies (Flick, 2009b). Qualitative research “is good at uncovering the subtleties and nuances in responses and meanings as result” (McGivern, 2009, p. 162). This is because it tends to be sensitive to the wider context in which it is conducted.

While there are justified reasons for a researcher to use either qualitative or quantitative methods of data analysis as part of their study, “nonetheless many researchers combine both, using both quantitative and qualitative methods and vehicles” (Wisker, 2008, p. 75).

Mixed methods can allow researchers to, “legitimate the use of multiple approaches in answering research questions, rather than restricting or constraining researchers' choices” (Burke Johnson and Onwuegbuzie, 2004, p. 17). A mixed method approach can often be beneficial as the methods can complement each other, “Qualitative data can often be used to explain the results of quantitative research” (Liamputtong and Ezzy, 2005, p. 5).

It can be difficult to understand why people rate themselves at a particular number or rate on scales such as the Likert scales. Qualitative research can be beneficial as it provides information about meanings and interpretations that can be used to further assist in the interpretation of statistical data (Liamputtong and Ezzy, 2005). Finally using mixture of qualitative and quantitative analysis of the data will provide insight, discovery and interpretation.

For the purpose of this study a mixed method was used to allow for an expansive and creative form of research and therefore not limiting the research (Burke Johnson and Onwuegbuzie, 2004). A survey was chosen as it allowed for the collection of a large number of responses in a cost-effective manner within a certain time scale.

#### **4.4 Research Strategy and Design**

The following section deals with the nature of the research problem and how the research problem was approached by means of empirical investigation.

##### **4.4.1 Preliminary Research: Knowledge and Issues for Investigation**

The preliminary component of this study was essentially concerned with identifying contextual issues for empirical investigation. This involved a search and review of the extant literature on the skills resulting in EE and literature on employability skills that are

desired and can be applied in a work environment subsequent to receiving third level education.

#### **4.4.2 Literature Review**

The objective of the literature review was to establish the current state of knowledge on the following key areas:

- EE and policy
- Entrepreneurial skills
- Intrapreneurship
- The “state” of being employable
- Employability skills
- Employment models and policy supporting employability

The literature review initially comprised a library search using the main international business abstracts. Subsequent research involved both a search of computerised databases (Emerald Insight, Research Gate, JSTOR, Central Statistics Office and Industry Journal Databases) and manual searches. The manual searches were predominantly concerned with finding relevant Irish materials and concentrated on newspaper articles, reports, general journals and magazines.

Secondary research also comprised obtaining data and reports from Enterprise Ireland, The National Employment Agency, The Global Entrepreneurship Monitor (GEM) Reports, GUESS Report, HEI Compacts, and government and education policy documents. The Internet was essential in gaining a perspective into employer’s attitudes towards graduates and the types of courses and training provided by higher education in Ireland. Search engines proved useful in providing relevant information to research articles and reports.

### **4.5 Measures Used**

#### **4.5.1 Employability skills**

No universally accepted fixed set of employability skills exist however there are suggestions in the literature. Employability skills are generally transferable skills that are desired by organisations to fill roles in the organisation. They consist of hard and soft skills. The measure employed in this study to examine employability skills is reference to a number of commonly cited employability skills amongst the literature and reports.

The employability skills according to the literature are ranked in order of importance to employers and their contribution to employability.

#### **4.5.2 Impacted groups**

The impacted groups are measured in three different and distinct groups. The three impacted groups are students, employers and educators for the purpose of this study. Each group is examined once.

#### **4.5.3 Graduates**

The measure employed for determining final year of study was student's graduation date. Senior students who were set to graduate within the year were surveyed. This was done for two reasons. Firstly, to capture the perspectives of students who had the opportunity to develop their skills to an optimal level in higher education. Secondly, to examine the perspective of soon-to-be graduates pertaining to what they felt employers wanted from a graduate.

#### **4.5.4 Organisational Role**

The measure adopted here was to ascertain the role of the individuals within the organisation with its relevance to hiring process and familiarity with desirable employment skills.

#### **4.5.5 Area of graduate study**

The measure employed for area of graduate study is the path of education undertaken by soon-to-be graduate respondents.

#### **4.5.6 Extra-curricular activity**

Extra-curricular activity is measured through two measures. Firstly, through participation levels by students and educators. Secondly, through value placed on this activity by employers.

#### **4.5.7 Responsibility for skills development**

Responsibility for skills development is measured by assessing who is primarily responsible for developing employability skills.

#### **4.5.8 Gender**

The measure employed was determining the gender of students, employers and educators. Gender is a binary nominal variable with values of male or female. Gender was self-reported by all respondents.



#### **4.5.9 Confidence levels**

Confidence levels are measured in terms of how students are confidently prepared for employment.

## 4.6 Hypotheses

**Table 4. 2: Proposed Hypotheses**

Hypothesis testing relationship between skills and groups	
H1	A relationship exists between employability skills and impacted groups
H1a	A relationship exists between employability skills and students final year of study
H1b	A relationship exists between employability skills and organisational role
H1c	A relationship exists between employability skills and area of study
H2	A relationship exists between employability skills and extra-curricular activity
H2a	A relationship exists between employability skills and who is responsibility for skills development
H2b	A relationship exists between employability skills and gender
H2c	A relationship exists between employability skills and confidence levels
H3a	A relationship exists between impacted groups and students final year of study
H3b	A relationship exists between impacted groups and organisational role
H3c	A relationship exists between impacted groups and area of study
H4	A relationship exists between impacted groups and extra-curricular activity
H4a	A relationship exists between impacted groups and who is responsible for skills development
H4b	A relationship exists between impacted groups and gender
H4c	A relationship exists between impacted groups and confidence levels
H4f	A relationship exists between student's final year of study and organisational role
H5	A relationship exists between student's final year of study and area of study
H5a	A relationship exists between student's final year of study and extra-curricular activity
H5b	A relationship exists between student's final year of study and responsibility for skills development
H6	A relationship exists between student's final year of study and gender
H6a	A relationship exists between student's final year of study and confidence levels
H7b	A relationship exists between organisational role and area of study extra-curricular activity
H8	A relationship exists between organisational role and responsibility for development of skills

H8a	A relationship exists between organisational role and gender
H8b	A relationship exists between organisational role and confidence levels
H8c	A relationship exists between organisational role and organisational role
H8d	A relationship exists between area of study and extra-curricular activity
H9	A relationship exists between area of study and responsibility for skills development
H9a	A relationship exists between area of study and gender
H9b	A relationship exists between area of study and confidence levels
H9c	A relationship exists between extra-curricular activity and responsibility for skills development
H9d	A relationship exists between extra-curricular activity and gender
H9e	A relationship exists between extra-curricular activity and confidence levels
H9f	A relationship exists between responsibility for skills development and gender
H9g	A relationship exists between responsibility for skills development and confidence levels
H9h	A relationship exists between area of gender and confidence levels
H10	A relationship exists between Irish and Croatian findings

## 4.7 Collection of Data

While the distinction between qualitative and quantitative techniques is not always clear, this study attempted predominantly to gather quantitative information on the perception of the importance of employability skills and the contribution made to these skills by HEIs.

### 4.7.1 Research Methods Used

In designing the research instrument for this study (final questionnaires supplied in Appendix A), a main consideration was, what types of measures and questions would be required to test the research hypotheses. A deciding factor in the choice of measurement type was the ‘attitudinal nature’ of these hypotheses. The theory to be tested is based on individuals’ perceptions and attitudes towards certain test variables. Oppenheim (1966) advocates the use of Likert type measures when studying attitudes:

*If we wish to study attitude patterning or to explore theories of attitudes, then probably the Likert procedure will be the most relevant.*

*(Oppenheim, 1966, p. 123)*

There is strong support, in both research design literature and extant empirical research, for the application of attitude scaling techniques (Saunders *et al.*, 2009). Research design literature suggests that attitude scaling may be the only appropriate measure for such subjective issues according to Oppenheim (1966). For these reasons it was deemed appropriate to adopt a Likert scale to variables in this study that were measuring attitudes of respondent to the importance of employability skills and the contribution made to these skills by HEIs. The scale used in the research questionnaire was a 7-point Likert scale, which attempted to force respondents to make an affirmative decision, even if it forces the respondent to make at least a weak commitment in the direction of one or other extreme, by choosing an even number on the scale (DeVellis, 2003).

## **4.8 Development of the Questionnaire**

### **4.8.1 Determine what is to be measured**

The questionnaire design process is the determination of what the research is attempting to measure. Table 4.3 outlines the key variables of the questionnaire. It shows which variables relate to each of the proposed hypothesis and the level to which they answer the following research objectives:

RO1. To determine the relationship between entrepreneurship education and graduate employability.

RO2. To identify the nature of entrepreneurial skills sought by employers.

RO3. To determine the extent to which entrepreneurial skills developed in Higher education impact on graduate employment.

RO4. To establish a consensus between the attitudes of educators, employers and students' in Croatia and Ireland

**Table 4. 3: Variables Used in Research Instrument**

Variables	Research Objective	Hypothesis
Students area of study	RO1, RO3	H1, H2, H3, H5
Organisational roles	RO3, RO2	H2, H4, H6
Gender	RO1	H2, H8, H9
Respondents work experience (yrs.)	RO2	H4, H7
Importance of skills	RO1, RO2, RO4	H1, H2, H4, H6, H7, H10
Contribution made by HEIs to development of skills	RO1, RO3, RO4	H1, H2, H4, H5, H5, H7, H10
Graduation date	RO3	H3, H9
Extra-curricular participation	RO1, RO3	H1, H2, H6
Skills development responsibility	RO1, RO3	H1, H2, H6, H7
Value of EE	RO1, RO2, RO3	H1, H2,
Value of extra-curricular activity	RO3	H1, H2, H4, H6,
Confidence levels	RO3	H2, H8, H9

#### 4.8.2 Question Formulation

The general theory of question wording is that the wording, structure and layout of all questionnaires must lead to valid and reliable results and should have three fundamental principles for the respondent. According to (Brancato *et al.*, 2006, p. 30), the respondent should:

- Clearly understand what he or she is being asked,
- In principle, be able to answer to the question, and
- Understand how the answer must be given

According to, Balnaves & Caputi (2001);

*Wording for questions in a questionnaire is not only a matter of coming up with good questions that relate to the research question or hypothesis of interest, but coming up with good questions that can be understood*

*(Balnaves and Caputi, 2001, p. 82)*

(DeVaus, 2005, p. 121) provides a simple checklist for the wording of questions, which was followed, some of the guidelines I followed was if the language was simple, was the question leading, negative, ambiguous or too precise for example. The language was kept simple as per DeVaus's (2005) recommendation.

Accordingly, effort was made to phrase the questions as simple and direct as possible using words that are familiar to the respondents. It was also considered important to avoid leading questions, implicit alternatives and assumptions (Balnaves and Caputi, 2001).

#### **4.8.3 Question Sequence**

The order in which people read the questions could easily influence their answers (DeVaus, 2005). Great care should be placed on the order and grouping of the questions because a preceding question can influence the attitude toward a following one (Brancato *et al.*, 2006).

In the survey distributed, instruction was given with each question on how the question was to be answered to ensure there was no ambiguity about what was required from each question. The sequence in which the questions are presented in the questionnaire was crucial for the success of the research as it may influence whether the questionnaire was completed or not. In designing the questionnaire questions that were deemed to be the most important to answer were presented in the first section of the questionnaire, these questions were non-controversial and did not look for sensitive information to be provided.

#### **4.8.4 Questionnaire Appearance**

After establishing the sequence of the questions, attention must be paid to the questionnaire appearance. The physical format can influence the degree of respondent cooperation, and the quality of the data collected. People respond to format on three levels: emotional, functional and reflective. Responses on the emotional level are the first, spontaneous feelings conjured by the questionnaire's look. For example Giesen *et al.*, (2012) outline that a thick questionnaire crammed with tiny letters will create a different impression from a thin counterpart laid out neatly and legibly.

Brancato *et al.*, (2006) discuss two major areas for consideration when developing your questionnaire. The functional level of visual design and the reflective level of visual design. Accordingly, every effort was taken to present the questionnaire in a professional

and attractive format bearing in mind these two elements therefore the survey tried to satisfy the functional level of visual design according to the below:

- Communicating the concept of the survey designer to the respondent's mind
- Cautious not to cognitively overburden all or some of the respondents
- Made it self-evident from the visual design which task was required
- Standardised question patterns (Brancato *et al.*, 2006)

Reflective level of visual design is more concerned with the cognitive aspects of questionnaire design. The questionnaire communicated reflective level of visual design by:

- Giving the impression that the data was safe
- Informing respondents that the data collection was carried out for purely research reasons
- That the results produced were relevant to them or society as a whole
- It looked easy to complete (Brancato *et al.*, 2006)

#### **4.8.5 Pilot Work**

“The advice to pilot test questionnaires is probably one of the most ignored suggestions regarding questionnaire design” (DeVaus, 2005, p. 151). A pilot study is an essential requirement when undertaking research. Even the best questionnaire can be improved by pre-testing (Malhotra, 2006). Piloting can be a helpful process in clearing up ambiguity in questions and how to best frame the questions in the questionnaire (Gillham, 2008). According to (Oppenheim, 1966, p. 47); “Questionnaires do not emerge fully fledged; they have to be created or adapted, fashioned and developed to maturity”.

(DeVaus, 2005; Gillham, 2008) argue that a proper pilot should emulate the main study, involving fewer people and include responses from the same respondent group as the main study. Furthermore, (Gillham, 2008) identifies five ways in which you can assess the success of the questionnaire through piloting.

1. A low or slow response rate
2. Misunderstandings of the questions
3. Omitted responses
4. Incomplete, crossed out responses

5. Frequent comments such as N/A or extra points added to your list

Before administering the final questionnaire efforts will have to be made to rectify these points as it is difficult to go back to people to collect additional information once the questionnaire has been collected (DeVaus, 2005).

Prior to full administration of the questionnaire the researcher carried out a pilot test using web surveys. Alterations were made to the research instrument after pilot testing to re-word or eradicate ambiguous questions, some scales exhibiting low reliability were changed, with certain items being dropped to increase reliability coefficients to within acceptable levels and the conceptual model and hypotheses were changed or re-worded accordingly. The changes to the questionnaire post pilot testing can be seen in Table 4.4 below.



**Table 4. 4: Changes to Questionnaire after Pilot testing**

Main changes to Questionnaire After Pilot Test
<ul style="list-style-type: none"><li>• Some skills on the skills list deleted due to similar meaning</li></ul>
<ul style="list-style-type: none"><li>• Questions reworded as they were ambiguous</li></ul>

It was decided to contact two respondent groups via email (educators and employers’). This was due to time constraints of educators and employers’. It was deemed that organising meeting with these two respondent groups to gather the necessary information was inefficient. However, physical questionnaires were easier to obtain from students. It was decided that many questionnaires could be collected at one time in a class-setting situation. These were the reasons for the chosen collection method. Another important aspect that has to be taken into consideration before sending out the questionnaire refers to the cover email to educators and employers’. The cover letter is extremely important in encouraging a high response rate, as it is the first impression for the respondent. It is therefore important that the cover email convinces the respondent to cooperate by overcoming any resistance or prejudice the respondent may have against the study.

The cover email consisted of a justification for the study, it sought to convince the respondents that their response was absolutely necessary for the success of the study and ensured respondents that all information provided would be kept in strict confidence. The email gave respondents the preference to complete the survey online by simply including a link to the survey designed using survey monkey. Subsequent to the pilot surveys being conducted, Creswell’s (1994) well respected three-step procedure, described below, was applied when administering the questionnaire to maximise the response rates:

*[a] an initial mailing, [b] a second mailing of the complete instrument after 2 weeks, [c] a third mailing of a postcard as a reminder to complete and send in the questionnaire.*

*Creswell (Creswell, 1994, p. 122)*

#### **4.9 Method of Analysis**

The questionnaire was designed for analysis using the statistical package SPSS Version 2015. Each valid questionnaire was inputted. Questions were analysed using descriptive statistics, most notably frequencies, cross-tabulations and comparisons of means.

#### **4.10 Conclusion**

A methodological review has been completed to both support the use of a quantitative, hypothesis-driven research approach, as well as identifying deficiencies in the existing related research. These deficiencies have led to the development of specific research needs that form the basis of a conceptual model that is adapted from previous literature. Drawing hypotheses from this model led to the necessity to design a research instrument that would include attitudinal measurements.

A pilot study was undertaken to test the reliability and validity of the final instrument. With the successful completion of the pilot study, changes were made to the questionnaire and a decision to have a completely self-administered (postal) questionnaire and online questionnaire was made based on issues of downtime for the respondent groups, accessibility, interviewer bias and quality of response. The questionnaire was then administered to the suitable respondent groups.

The success of these measures can be found in the response rates achieved by this study, in the results of the non-response analysis and in the overall quality of the data, which will be evident in the following chapters where these are presented, analysed and discussed.

## **Chapter 5 - Findings**

### **5.1 Introduction**

This chapter presents the findings from the questionnaire administered to employers, educators and students' in the last year of study in the Republic of Ireland. By doing this, it reaches its conclusions on the knowledge skills and attitudes employers, educators and students' are necessary for employability. Data was collected through online surveys to educators and employers and through postal surveys to students. All the respondents were based in Ireland. This study was then cross-referenced with a similar study conducted by, Ljerka Sedlan Kőnig, Petra Mezulić Juric and Tihana Koprivnjak, of The Josip Juraj Strossmayer University of Osijek, Croatia.

### **5.2 Collection to the Findings**

For the purpose of this study, it was decided to use both open and closed questions, as it would give more rounded responses to the questionnaire. Open questions such as "if other, please specify" were always placed at the end of closed questions because it would allow the respondent to give an unbiased response to each question and therefore protect the validity of the data. One question was included, which required the individual completing the survey to give details of their role within the organisation. This can be referred to as the classification question. It was decided to include this question to establish if there was a variation in responses between different roles, in organisation, in different industries.

The Head of the Hincks Centre for Entrepreneurship Excellence, CIT reviewed the questions. This ensured the survey used for the study was clear, accurate and concise. With her valuable feedback and from the lessons learned from piloting, outlined in Chapter 4, changes were made to the layout of the questionnaire, questions were edited, and duplicate questions removed.

#### **5.2.1 Participants**

In order to acquire a distribution list for this questionnaire, the Careers Office in CIT was contacted, who provided a list of employers who exhibit at the Graduate Recruitment Fair in CIT each autumn. Emails and contact details were also collected from relevant people at the Fair. These details were cross-referenced with the list provided by the Careers Office in CIT to avoid duplication. In order to obtain a list of lecturer's emails, the Administration Office in CIT was contacted. The Office provided a list of lecturers. In

order to contact the third respondent group, lecturers whom were willing to allocate twelve minutes of their class time to allow for completion and collection of the student questionnaire were contacted. A time was agreed where the questionnaire would be disseminated and collected immediately thereafter.

### **5.2.2 Responses**

After the collection of databases and contact made with lecturers, the surveys were then sent via email to educators and employers'. A reminder email was sent one week later, and a subsequent reminder email was sent after two weeks. Four weeks were allowed to complete the survey online. Over these four weeks, appointments were arranged with lecturers and surveys were distributed, in class, to students and collected subsequently. Responses came from thirty-nine educators, thirty employers and one hundred and sixty-one students.

### **5.3 Cross Country Comparison Overview**

Links between Croatia and Ireland stretch back to Saint Donatus of Zadar, an Irishman, who in the second half of the 8th century became a bishop and built the church that bears his name on the foundations of the old Roman forum in Zadar (Department of Foreign Affairs and Trade - Ireland, 2003). At an economic and demographic level, even though both countries are of similar size in population terms, the differences in GDP, economic development phases and other areas are somewhat larger.

According to The Global Entrepreneurship Research Association (2016), Croatia has a population of 4.2 million (2015) with GDP: \$48.9 billion (2015) GDP per capita: \$11,573 (2015). The Economic Development Phase is Efficiency-Driven. An Efficiency-Driven Economy is described as “are increasingly competitive, with more-efficient production processes and increased product quality” (GEM Global Entrepreneurship Monitor, 2014).

Ireland has a population of 4.6 million (2015) with GDP: \$238.0 billion (2015) GDP per capita: \$51,351 (2015) and Economic Development Phase is Innovation-Driven. An Innovation-Driven economy is described, as “are the most developed. In this phase, businesses are more knowledge-intensive, and the service sector expands” (GEM Global Entrepreneurship Monitor, 2014). Table 5.1 below outlines the economic similarities and differences between Croatia and Ireland.

**Table 5. 1: Croatia and Ireland Economic Comparison**

GEM Report Stats	Croatia	Ireland
Population Million (2015)	4.2	4.6
GDP\$ Billion (2015)	48.9	238.0
GDP Per Capita \$ (2015)	11,573	51.351
SME Contribution to GDP % (2015)	56	47
World Bank Doing Business Rank	43/190	18/190
World Bank Starting a Business Rank	95/190	10/190
World Economic Forum Global Competitiveness Rank	74/138	23/138
Economic Development Phase	Efficiency-Driven	Innovation-Driven

*(Global Entrepreneurship Research Association, 2016, pp. 51&68)*

To explain the terms contained in the table we understand GDP per capita as a measure of the total output of a country that takes the gross domestic product (GDP) and divides it by the population (Investopedia, 2012). The GDP per capita is especially useful for this table as when comparing Ireland to Croatia we can see the performance of both countries. A rise in GDP per capita signals growth in the economy and tends to reflect an increase in productivity. The SME Contribution refers percentage by which SMEs contribute to the total GDP of a county. The World Bank Doing Business Rank, ranks countries in order of how easy it is to do business in ta country i.e. which countries have the most business friendly regulations (The World Bank, 2017). The World Bank Starting a Business Rank, measures number of procedures, time, cost and paid-in minimum capital requirement for a small- to medium-size limited liability company to start up and formally operate in each economy’s largest business city and compares it with other countries on a scale (*Starting a Business - Doing Business - World Bank Group*, 2017). The World Economic Forum Global Competitiveness Rank measures national competitiveness in terms of 138 economies globally. It is measured on the set of institutions, policies and factors that determine the level of productivity within a nation (World Economic Forum, 2017).

## 5.4 Examination of Country Statistics

### 5.4.1 GDP Activity

The GDP of Croatia is nearly five times less than that of Ireland. The GDP of a country is defined by the CSO as, “GDP measures the total output of the economy in a period i.e. the value of work done by employees, companies and self-employed persons” (CSO, 2016). The value is calculated in a given timeframe, which gives an indication of the country’s economic performance compared to others. We can speculate as to what the large difference in GDP could be attributed. In the past Croatia had a corporate tax rate of 20% however since 2017 two tax bands apply, 12% and 18%. Ireland has always had a very competitive corporate tax rate and it is well known that many multi-nationals have been attracted to Ireland for its 12.5% tax rate since 1998. Another difference is that Ireland is one of two native speaking English countries currently in Europe, meaning in many ways that it is easier to do business here.

### 5.4.2 SME Activity

SMEs are defined by the OECD as, organisation with 250 employees or less. Croatia and Ireland have a similar percentage of SME Contribution to GDP, 56% and 47% respectively. Even though, 99.7% (Small Business Act, 2018a) of enterprises in Croatia are SMEs compared to 99.8% (Small Business Act, 2018b) in Ireland, revenues from SMEs in Croatia are contributing in a greater capacity in terms of percentage to the overall market activities resulting in higher GDP compared to Ireland.

### 5.4.3 Ease of Doing Business

According to the World Bank, economies are ranked on their ease of doing business, from 1–190. If a country is positioned high in these rankings, it means that the regulatory environment is more conducive to the starting and operation of a business.

- According to The World Bank Group (2018), Ireland is ranked 17<sup>th</sup> of 190 countries for ease of doing business and ranked 8<sup>th</sup> out of 190 countries in term of ease of starting a business taking procedure, time and cost into consideration.
- According to The World Bank Group (2018), Croatia is ranked 51<sup>st</sup> of 190 countries for ease of doing business and ranked 87<sup>th</sup> out of 190 countries in term of ease of starting a business taking procedure, time and cost into consideration.

A low numerical value is indicative of a high ranking, hence for examining the statistics pertinent to this study we can see that Ireland performs better in terms of “Doing Business” and “Starting a Business” than Croatia.

According to the World Economic Forum (2017), the top five factors most problematic for doing business in Croatia are:

1. Inefficient government bureaucracy
2. Policy instability
3. Tax regulations
4. Corruption
5. Tax rates

The top five factors most problematic for doing business in Ireland are:

1. Inadequate supply of infrastructure
2. Tax rates
3. Inefficient government bureaucracy
4. Access to financing
5. Government instability/coups

#### **5.4.4 Global Competitiveness**

The World Economic Forum’s Global Competitiveness Report (2017) indicates that Ireland is three times more competitive than Croatia. This Global Competitiveness Index (GCI) tracks the performance of one hundred and thirty-eight countries on twelve pillars of competitiveness. It assesses the factors and institutions identified by empirical and theoretical research as determining improvements in productivity. These results, in turn are the main determinant of long-term growth, an essential factor in economic growth and prosperity.

Economies are categorized under three categories, factor-driven, efficiency-driven or innovation-driven economies according to the World Economic Forum’s Global Competitiveness Report (2017). We can see from the GEM Report (2016) that Croatia is an efficiency-driven economy. This means that Croatia must begin to develop more-efficient production processes and must increase product quality because wages have risen but they cannot increase prices. At this point, six pillars have been identified in

driving the economy towards competitiveness. The consensus is that this drive towards competitive has to be done through higher education and training (5<sup>th</sup> pillar), efficient goods markets (6<sup>th</sup> pillar), well-functioning labour markets (7<sup>th</sup> pillar), developed financial markets (8<sup>th</sup> pillar), the ability to harness the benefits of existing technologies (9<sup>th</sup> pillar), and a large domestic or foreign market (10<sup>th</sup> pillar). The GEM Report (2016) shows Ireland is an innovation-driven economy. The World Economic Forum's Global Competitiveness Report (2017) indicates that in Ireland wages will have risen by so much that they are only able to sustain those higher wages and the associated standard of living if their businesses are able to compete using the most sophisticated production processes (11<sup>th</sup> pillar) and by innovating new ones (12<sup>th</sup> pillar).

#### **5.4.5 Entrepreneurial Attitudes**

Entrepreneurial attitudes and behaviours both in Croatia and in Ireland are similar when we investigate individual's perceived capabilities. Statistics taken from The Global Entrepreneurship Monitor Report (2016) shows that both Ireland and Croatia perceive their entrepreneurial capabilities to be above the EU average of 43.5%. Both countries show lower levels, below the EU average, when it comes to fear of failure. The entrepreneurial intention rate is ranked higher than the EU average in both countries with Croatia displaying a greater confidence in entrepreneurial intention than Ireland however both countries show that the perceived levels of opportunity to be low, see Table 5.2. To give context to this table, entrepreneurial intentions represent the percentage of individuals who expect to start a business within the next three years (Kelley *et al.*, 2011). The perceived opportunity rate differs vastly as the perceived opportunities in Croatia (24.6%) are nearly half of what they are in Ireland (45.2%). If individuals perceive little or no opportunities in Croatia, this would lend itself to be an efficiency-driven economy, resulting in businesses being born out of necessity rather than unexploited or underexploited market opportunities being available for capitalising.



**Table 5. 2: Entrepreneurial Behaviour and Attitudes - Croatia and Ireland**

Self-Perceptions	Croatia		Ireland		EU Avg
	Value %	Rank/65	Value %	Rank/65	Value %
Perceived Opportunities Rate	24.6	60	45.2	25	36.2
Perceived Capabilities Rate	50.2	29	44.9	22	43.5
Fear of Failure Rate	35.8	35	39.6	22	40.1
Entrepreneurial Intentions Rate	18.2	32	12.9	43	11.9
<b>Activity</b>					
	Value %	Rank/65	Value %	Rank/65	Value %
Total early-stage Entrepreneurial Activity (TEA) Rate	8.4	43	10.9	29	8.4
Established Business Ownership Rate	4.2	56	4.4	52T	6.9
Entrepreneurial Employee Activity Rate	5.3	19	6.2	11	4.4
<b>Motivations</b>					
	Value %	Rank/65	Value %	Rank/65	Value %
Motivational Index	1.3	48T	3.2	22T	3.4
<b>Entrepreneurship Impact</b>					
	Value %	Rank/65	Value %	Rank/65	Value %
High Job Creation Expectation Rate	30.4	13	36.7	5	
Innovation Rate	23.3	38	40	6	28.3
Business Services Sector Rate	19.9	24T	23.7	20	
<b>Societal Values</b>					
	Value %	Rank/65	Value %	Rank/65	Value %
High Status to Successful Entrepreneurs Rate	45.6	61	83.1	5	57.2
Entrepreneurship as a Good Career Choice Rate	62.2	34	56.3	43	66.1

*Adapted from (Kelley et al., 2011)*

#### 5.4.6 Entrepreneurial Activity

Entrepreneurial activity in Croatia and Ireland meeting and exceeding the EU average of 8.4%. The rate of early stage entrepreneurial activity is 8.4% in Croatia and 10.9% in Ireland, which is encouraging and could be reflective of the attitude towards fear of failure being low in both countries. Established business ownership is low and below the EU average of 6.9% (4.2% in Croatia and 4.4% in Ireland). However, the entrepreneurial

employee activity rate is high: 5.3% in Croatia and 6.2% in Ireland, showing a strong intrapreneurial culture. The data suggests that approximately half of early stage entrepreneurs become established businesses in both countries. The data shows the level to which employees contribute to innovation and intrapreneurship within organisations are high. Innovation, creativity and new business opportunities contributions made by employees are ranked 19/65 for Croatia and 11/65 for Ireland, ranking both countries in the upper quartile of countries examined.

#### **5.4.7 Motivation Index**

The motivation Index (i.e. the Total Early-Stage Entrepreneurial Activity (TEA) Opportunity to Total Early-Stage Entrepreneurial Activity (TEA) Necessity ratio) is an important indicator of the entrepreneurial capacity of a country. It indirectly indicates the level of optimism and long-term expectations of entrepreneurs. Croatia and Ireland's motivation index is lower than the EU average. This suggests businesses are being born out of necessity more so, rather than perceived opportunities. Improvements in this important indicator are vital for growing confidence towards entrepreneurial activity and moving Croatia towards an innovation economy and sustaining Ireland's innovation economy advantage.

#### **5.4.8 Job Creation and Innovation**

When examining the impact of entrepreneurial behaviours and attitudes, it is perceived that job creation is ranked high in both Croatia and Ireland. The expectation that jobs created from entrepreneurship in Croatia is ranked 13/65 and ranked 5/65 for Ireland, which is a positive result for both countries. Ireland also scored high for innovation, indicating that Ireland is perceived six times more innovative than Croatia. Innovation is recognised to play a central role in creating value and sustaining competitive advantage (Tidd *et al.*, 2005). According to (Zahra and Covin, 1994, p. 183), "Innovation is widely considered as the life blood of corporate survival and growth". With this in mind, there is a lot of room for Croatia to improve its approach towards innovation with great economic benefits to be achieved as a result.

#### **5.4.9 Societal Values**

The societal values when it comes to entrepreneurial attitudes and behaviours are interesting when compared in both countries. Ireland had a perceived high status to successful entrepreneurs and measured five out of the sixty-five countries when examined however entrepreneurship as a good career choice was seen as a less attractive offering.

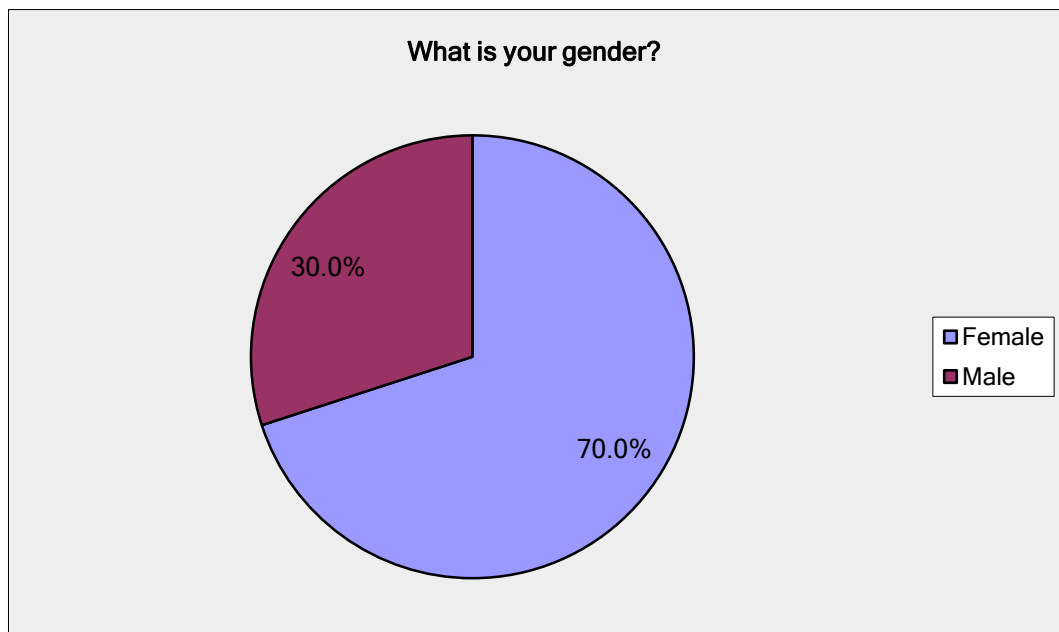
It seems that in Ireland Entrepreneurs are admired however the attractiveness as entrepreneurship as a career option is tentative. In contrast, interestingly, Croatia viewed entrepreneurship as a more attractive career choice than Ireland did. However, their perception towards entrepreneur's status was significantly lower than that of Ireland compared with the EU average, ranking at 62/65 countries examined. It seems entrepreneurship is slightly more of an attractive career option in Croatia however; the status of entrepreneurs in Croatia is not revered to the extent it is in Ireland. The attitudes towards status of entrepreneurs and entrepreneurship as a career option are at complete opposite ends of the scale in both countries.

## **5.5 Profile of Respondents**

### **5.5.1 Employers Data**

The employers profile consisted of thirty employers responded to the online survey summaries in Figure 5.1 below. The majority of individuals surveyed were HR and recruitment specialist. The longest job role was held for over twenty years with the shortest role being held for one month. 70% of individual surveyed were female and 30% were male.

**Figure 5. 1: Gender of Employer Respondents**



43% of employers believed that being part of a society that encourages entrepreneurship and innovation contributed greatly to employability. 40% believed that a student summer internship developing student business ideas would greatly improve student's employability. 6% of employers believed that having a designated student role promoting entrepreneurship on campus and competing in a Dragons Den style competition showcasing entrepreneurial ideas did not contribute at all to graduates employability.

37% of employers surveyed valued EE to a large extent. All employers say EE being of benefit with no one indicating that they did not value it and 13% having neutral feeling about valuing EE.

7% of respondents felt that HEIs contributes greatly to the development of graduate's employability skills. 3% of respondents believed that HEIs did not contribute at all to the development of graduate's employability skills.

17% of employers felt that HEIs contributed to a large extent to the development of graduates' employability skills. All employers felt that HEIs contributed to the development of these skills in some way.

3% of employers believed that students were sufficiently confidently prepared for the workplace. 36% of employers felt neutral in response to students being confidently prepared entering the workplace.

26% of employers indicated that by students engaging in extra-curricular activities that it largely contributed to making them more employable. All employers agreed that extra-curricular contributed in some way to becoming more employable.

63% of employers believed that it was students own responsibility to make themselves more employable. Employers felt that students play the primary role in making themselves more employable.

Employers felt that student's main priority once leaving higher education was to seek/gain employment. Employers viewed taking part in further study as the second biggest priority. Students starting their own business was ranked the lowest priority according to employers.

#### **5.5.2 Students Data**

One hundred and sixty-one students were surveyed by means of a paper-based survey. Students were taken from a sample of backgrounds including business, accounting, marketing, tourism and hospitality and information systems. All student surveyed were senior students meaning they were set to graduate the year the survey was taken. 34% of students took part in extracurricular activities as part of their studies, 66% did not engage. 50% of respondents were female and 50% of respondents were female as per Table 5.3.

**Table 5. 3: Gender of Student Respondents**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Female	81	50.3	50.3	50.3
Male	80	49.7	49.7	100.0
Total	161	100.0	100.0	

70% of students surveyed did not take part in any on campus entrepreneurship initiatives and 73% have not received EE.

Some of the most common reasons cited for not taking part in these initiatives were:

- “Confidence”
- “Too busy with college and work”
- “Not aware of such initiatives”
- “Not advertised”
- “Didn’t appeal or seem relevant”
- “No interest”

19% of students valued EE to a large extent with the majority of students feeling neutral about its value. 5% of students surveyed did not value EE at all.

10% of students surveyed felt that, to a large extent, Higher Education Institutes (HEIs) develop skills to make students employable. The majority of students felt neutral about HEIs contributed to the development of employment skills. 2% of student felt that there was no contribution at all by the HEIs to the development of employability skills.

22% of students felt the HEIs are largely responsible for the development of student’s employability skills. The majority of students felt neutral about the question. 1% felt that HEIs were not all responsible for the development of employability skills.

When asked, “To what extent do you feel that HEIs could help to develop employability skills further”, the majority of students surveys felt that the HEIs could contribute greater to the development (32%). 1% of students felt that HEIs could not help to develop employability skills further.

16% of students felt confident to a large extent entering into the workforce. The majority of students felt that they were confidently prepared with 5% expressing that they were not at all confident.

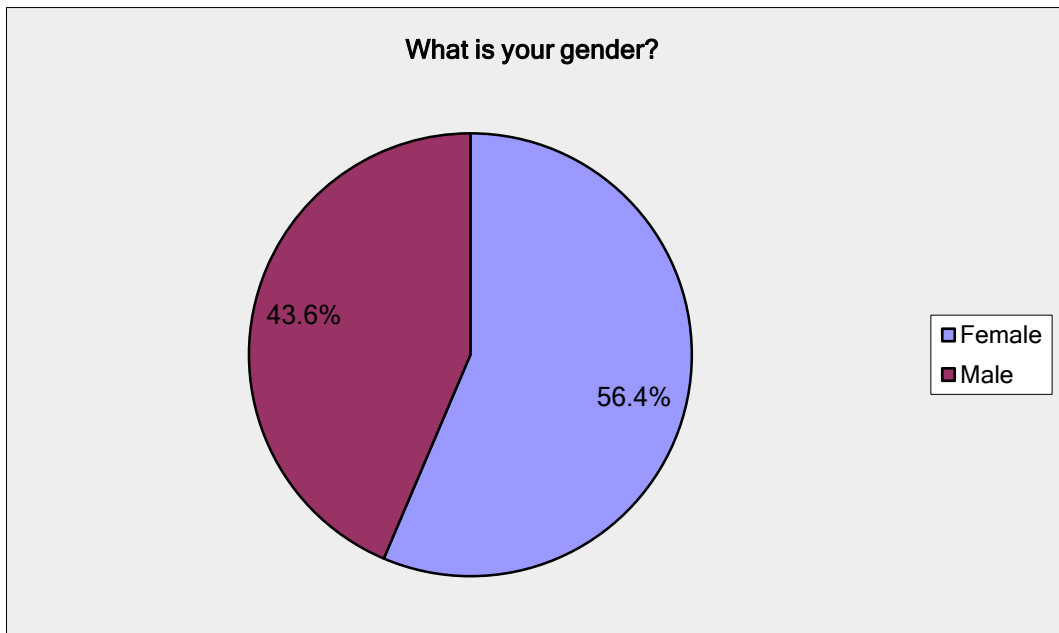
The majority of students (34%) felt that parents, students, HEIs, employers and second level education were responsible for making students more employable. 30% of students felt it was their primary responsibility to make themselves more employable while 1% felt it was their parents' main responsibility.

Students felt that their biggest priority once graduating was seeking'/gaining employment and their least priority was starting their own business.

### **5.5.3 Educators Data**

Thirty-nine educators responded to an online survey. Job titles included, lecturer, head of department, head of school, PHD researcher and course co-ordinators. The longest role had been held for 34 years and shortest held role was 2 years. 56% of respondents were female and 44% were male as per Figure 5.2 below. Figure 5.3 outlines the extent of educators involved in certain EE activities on CIT campus. Figure 5.4 shows the percentage of educators who actively promote extra-curricular activities and Figure 5.5 demonstrated educators views on where the responsibility lies in making graduates more employable.

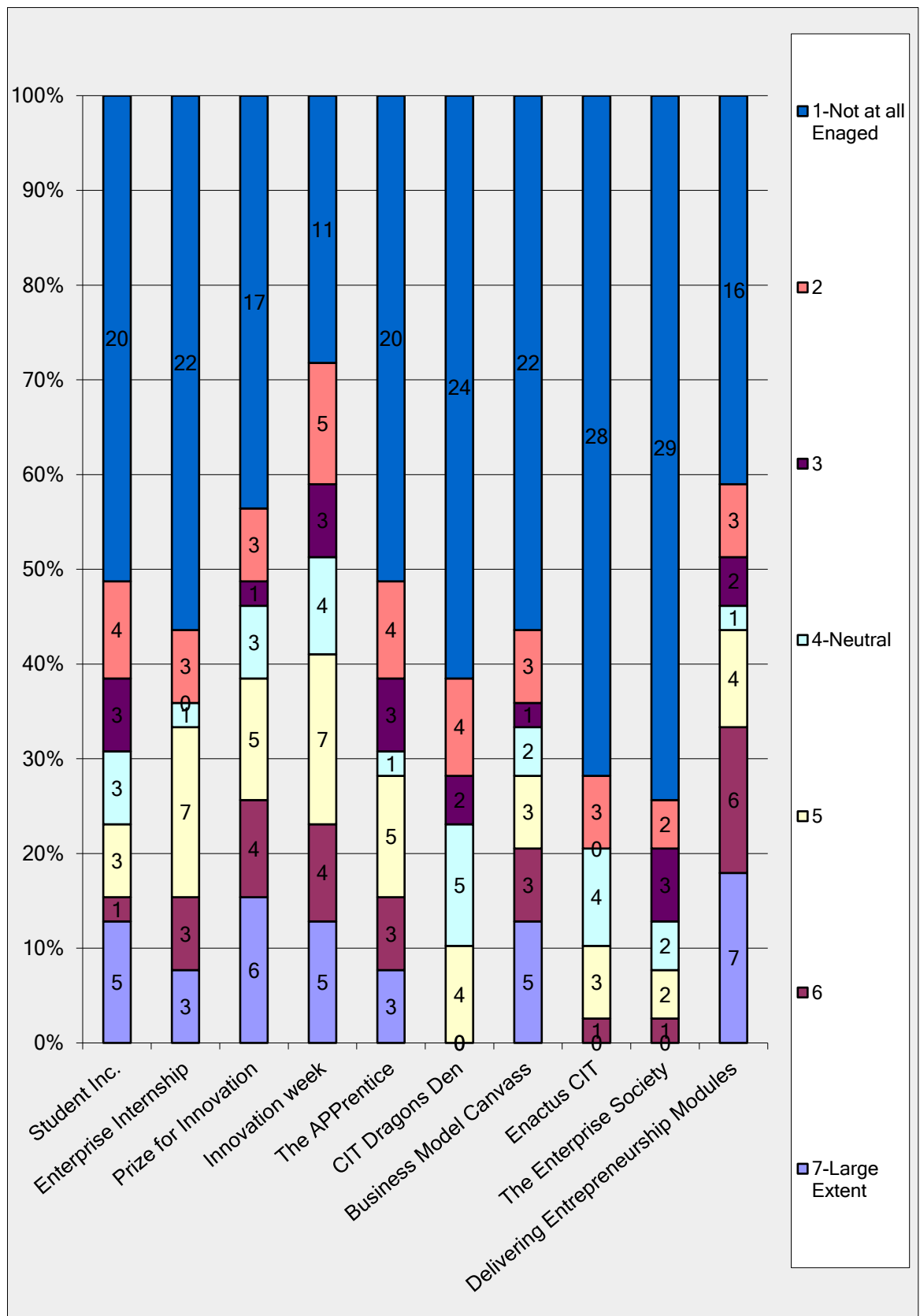
**Figure 5. 2: Gender of Educator Respondents**



9% of educators considered themselves to contribute greatly to entrepreneurship initiatives on campus and 54% considered themselves to have not contributed at all to entrepreneurship initiatives on campus.



**Figure 5. 3: Educator Involvement in EE Activities**



The majority of educators felt that the main reason that did not get involved in such initiative is due to the lack of time and lack of relevance to their area of teaching.

44% of educators valued EE to a great extent. 3% of educators did not value EE at all.

15% of educators believe that HEIs contribute to a large extent when it comes to developing students' employability skills.

3% of educators believe that HEIs do not contribute at all to the development to student's employability skills.

31% of educators believe that HEIs are responsible to a large extent for the development of employability.

31% of educators strongly believe that HEIs could make more of an effort to develop student's employability skills further.

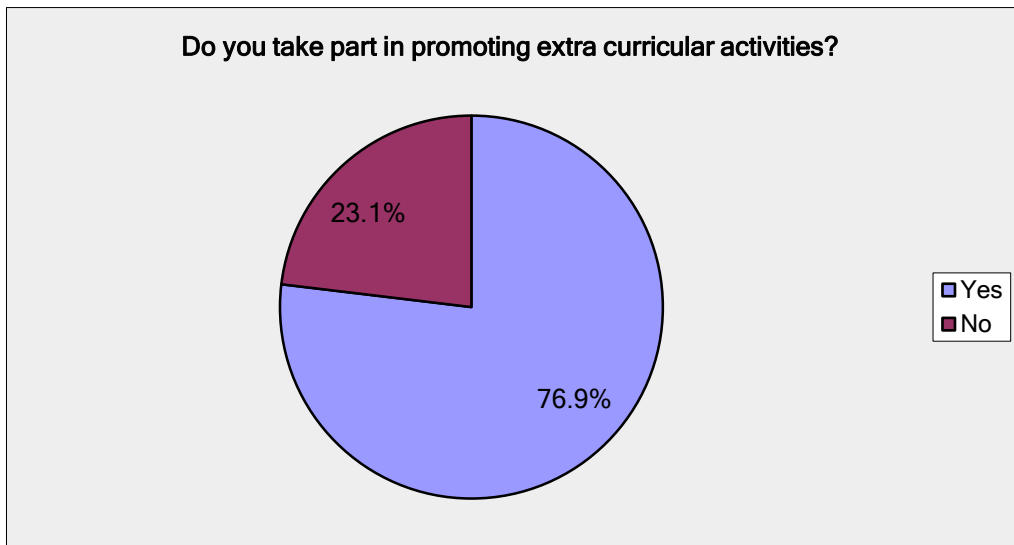
28% of educators feel that students are to a large extent confidently prepared entering the work environment.

3% of educators believe that students are not at all confidently prepared entering the work environment.

33% of educators strongly believe that by students engaging in extra-curricular contributes greatly to their employability prospects.

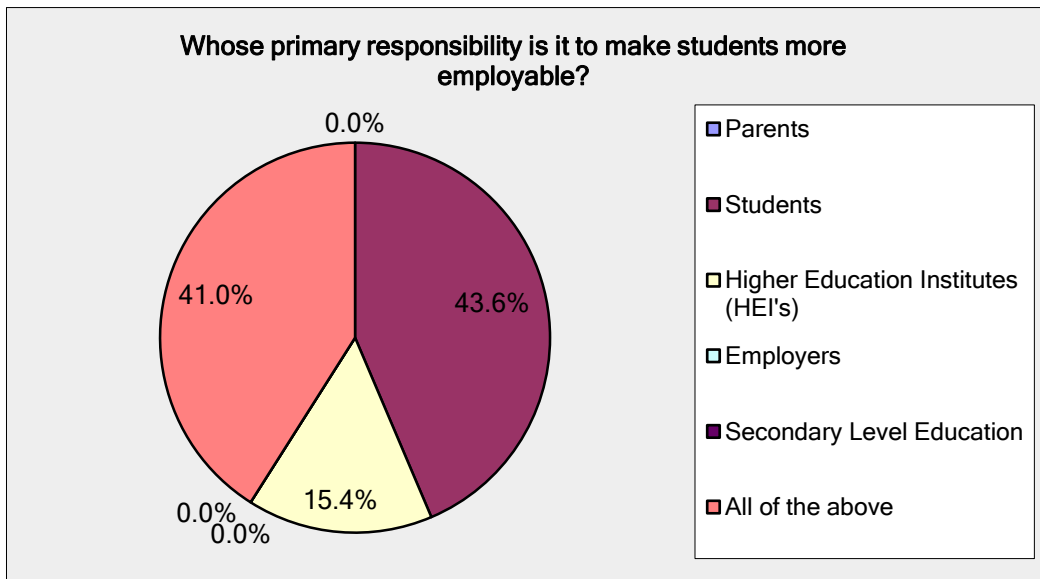
77% of educators took part in promoting extra-curricular activities, thus leaving 23% of educators who did not.

**Figure 5. 4: Educator Involvement in Extra Curricular Activities**



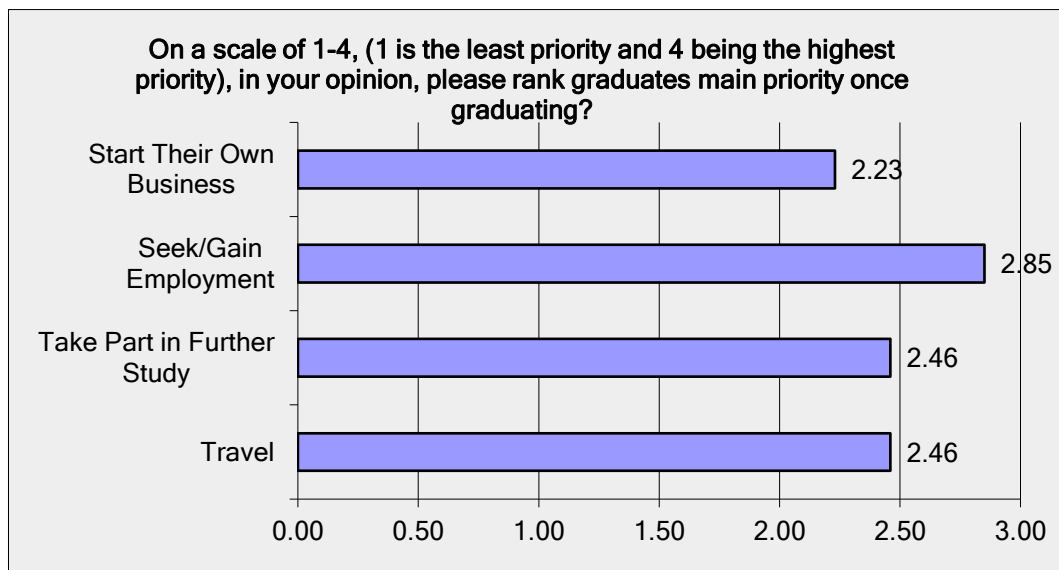
According to Figure 5.5, educators did not believe that employers, second level or parents were at all primarily responsible for making students more employable. Educators believed that students were primarily responsible for making themselves employable, with 44% of respondents expressing this. 15% of educators believe that HEIs were primarily responsible for making students more employable. 41% of respondents believed that the responsibility to make students employable was shared by all including parents, students, HEIs, employers and second level.

**Figure 5. 5: Educators View - Responsibility for Employability**



In Figure 5.6, we see that educators believed that students main priority when leaving college was to seek/gain employment. Starting a business ranked the least priority in terms of options for students when completing their studies.

**Figure 5. 6: Educators View of Students Main Priority**

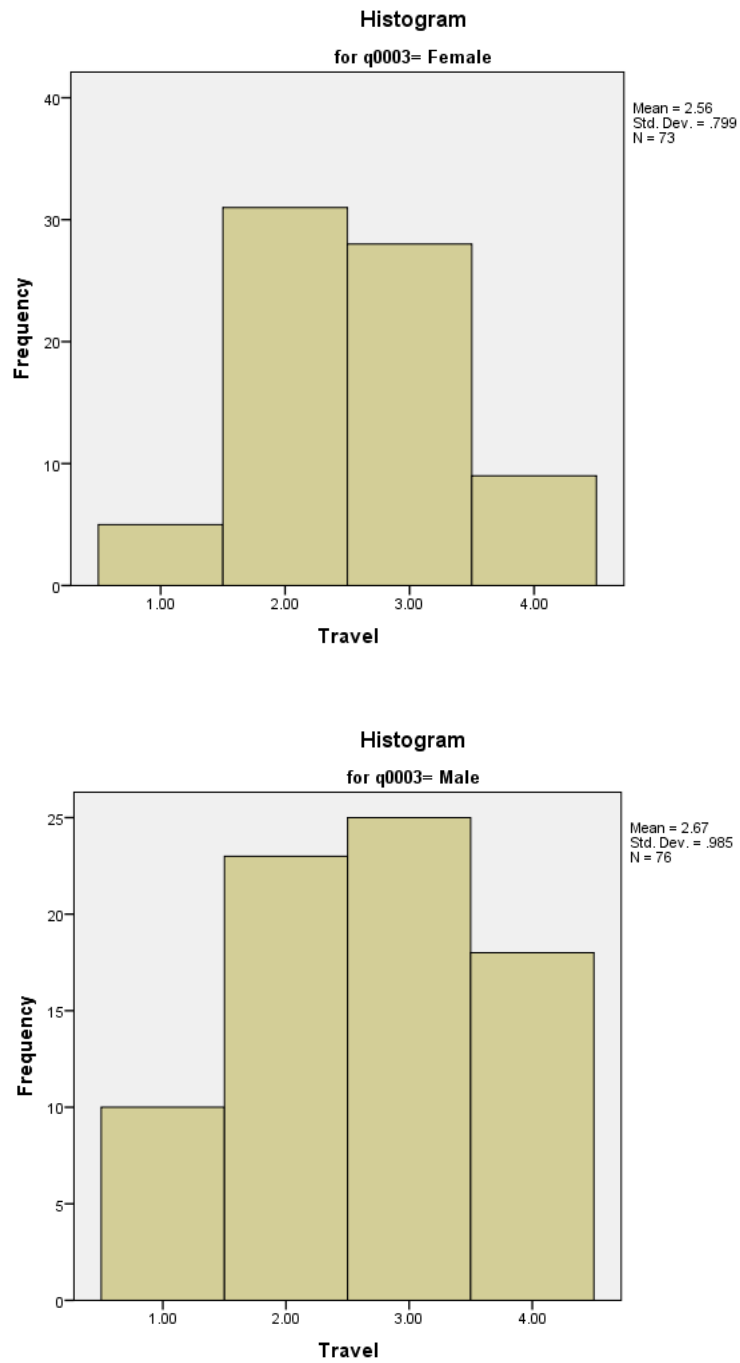


#### 5.5.4 Male/Female Findings

In Figure 5.7, we break down the data to see student's priorities after graduation into female and male perceptions. We find that females and males have a similar perception of what students main priorities are. These senior students were asked *“On a scale of 1-4, (1 is the least priority and 4 being the highest priority), in your opinion, please rank graduates' main priority once graduating?”*

We can see that double the number of males believe that travel is a high priority for graduates once graduating. Eighteen males indicated that travel was high priority on the scale and nine females indicated travel was a high priority.

**Figure 5. 7: Students Priority According to Gender**



When students were asked to rank “take part in further study” in terms of priority. Double the number of females than males felt that this was not a priority with seventeen females responding that this was the least likely priority in contrast to eight males.

**Table 5. 4: Stem and Leaf for Females Intentions towards Further Study**

**Take Part in Further Study Stem-and-Leaf Plot for  
q0003= Female**

Frequency	Stem & Leaf
17.00	1 . 000000000000000000
.00	1 .
24.00	2 . 000000000000000000000000
.00	2 .
29.00	3 . 000000000000000000000000000000
.00	3 .
3.00	4 . 000
Stem width:	1.00
Each leaf:	1 case(s)

**Table 5. 5: Stem and Leaf for Males Intentions towards Further study**

**Take Part in Further Study Stem-and-Leaf Plot for q0003= Male**

Frequency	Stem & Leaf
8.00	1 . 00000000
.00	1 .
38.00	2 . 000000000000000000000000000000000000
.00	2 .
27.00	3 . 000000000000000000000000000000
.00	3 .
3.00	4 . 000
Stem width:	1.00
Each leaf:	1 case(s)

Both females and males were of the same viewpoints when it came to seeking/gaining employment and starting their own business. The results showed similar numbers of females and males responding to these sets of priorities ranking them the same in order of importance.

More males took part in extra circular activity than females.

When females were compared with males in terms of confidence and readiness for the workforce, we saw that females felt far less confidently prepared for employment. 16% of females felt that they were not at all confidently prepared entering the workforce in contrast to 6% of males. The findings show that 2% of females felt confidently prepared for the workforce to a large extent as opposed to 6% of males. When we examine the results in the context of the scale, 38% females demonstrated results that appeared towards the lower end of the scale (1, 2 and 3) while only 20% males experienced low levels of confidence. When we look at the scale below, we can see that the total amount of females that ranked themselves high in confidence levels (5, 6 and 7) amounts to 40% compared 52% of males.



**Table 5. 6: Confidence According to Gender**

Gender	Not at all	2.00	3.00	Neutral	5.00	6.00	Large Extent	Σ
Female	13	11	7	18	22	8	2	81
Male	5	6	5	22	24	12	5	79
Total	18	17	12	40	46	20	7	160

When students were asked the question, “To what extent do you feel HEIs are responsible in developing students’ employability skills?” 81% of males felt that HEIs were very much responsible, whilst 61% of females felt that HEIs are responsible in developing their employability skills. This result, shown in Table 5.6, is indicative that female’s view of the development of employability skills is a shared responsibility that is imparted not only by HEIs but by other means too.

42% of females felt the responsibility of making students more employable was a shared effort. The majority of females felt the responsibility for employability lay with parents, students, HEIs, employers and second level institutions. 32% of males believed that the responsibility lay with all the groups listed above. Female only listed two sources under “who is responsible for making students more employable?” The two sources listed were students themselves and HEIs as the other major responsibility bearers. Males apportioned values against more sources as being the sole responsibility bearer for the development of student’s employability skills. Males cited five key areas for this, being; parents, students, HEIs, employers and secondary level institutions. This shows that males feel employability is more of a holistic effort however females feel that they are the sole responsibility bearers along with HEIs for the development of their employability skills.

Another interesting finding when it comes to the variances in view for male s and females is that females value EE less than males with 9% of females saying that do not value EE at all as opposed to 1% of males.

#### **5.5.5 Importance of Skills versus HEI Contribution**

Aligning what employability skills are deemed most important to employers with what HEIs contribute to the development of these skills is paramount to producing a highly employable graduate. Through the analysis of the results we can investigate whether educators, employers and students believe that what HEIs are contributing in terms of

employment align with their own perceptions and that of employers as to what constitutes maximum effectiveness towards developing the employable individual.

Below are the results of each respondent group compared in terms of what they believe to be important employability skills and what they believe HEIs are contributing to these skills. Table 5.7 shows below demonstrates from the findings what employer consider to be the most important skills versus what employers feel HEIs contribute in terms of their importance.

**Table 5. 7: Employers view employability skills importance versus what HEIs contribute**

Skill	Employers	Employers
	Importance	Contribution
Willingness to work	1	22
Enthusiasm and motivation	2	23
Teamwork	3	4
Work ethic	4	15
Learning skills	5	2
Application of knowledge	6	6
Diligence	7	14
Positive attitude towards change	8	18
Problem solving	9	7
Establishing & maintaining interpersonal contact	10	13
Taking initiative	11	26
Written communication	12	3
Critical thinking	13	9
Work under pressure	14	10
Desire for achievement	15	12
IT usage	16	5
Thinking outside the box and innovativeness	17	19
Subject knowledge	18	1
Self-confidence	19	16
Intelligence	20	11
Practical experience	21	25
Independence	22	17
Opportunity recognition	23	24
Negotiation skills	24	28
Making judgment on basis of limited information	25	29
Sense of humour	26	31
Persuasion	27	30
Public speaking	28	8
Usage of social networks	29	21
Foreign languages	30	20
Achievement in sport	31	27
Aggression	32	32

Table 5.8 shows below demonstrates from the findings what students consider to be the most important skills versus what students feel HEIs contribute in terms of their importance.

**Table 5. 8: Students view on employability skills importance versus what HEIs contribute**

Skill	Students	Students
	Importance	Contribution
Learning skills	1	2
Making judgment on basis of limited information	2	29
IT usage	3	5
Thinking outside the box and innovativeness	4	19
Opportunity recognition	5	24
Desire for achievement	6	12
Diligence	7	14
Application of knowledge	8	6
Persuasion	9	30
Teamwork	10	4
Sense of humour	11	31
Critical thinking	12	9
Problem solving	13	7
Negotiation skills	14	28
Work under pressure	15	10
Subject knowledge	16	1
Taking initiative	17	26
Written communication	18	3
Independence	19	17
Work ethic	20	15
Willingness to work	21	22
Usage of social networks	22	21
Positive attitude towards change	23	18
Enthusiasm and motivation	24	23
Foreign languages	25	20
Self-confidence	26	16
Public speaking	27	8
Practical experience	28	25
Achievement in sport	29	27
Aggression	30	32
Establishing & maintaining interpersonal contact	31	13
Intelligence	32	11

Table 5.9 shows below demonstrates from the findings what educators consider to be the most important skills versus what educators feel HEIs contribute in terms of their importance.

**Table 5. 9: Educators view on employability skills importance versus what HEIs contribute**

Skill	Educators	Educators
	Importance	Contribution
Enthusiasm and motivation	1	21
Work ethic	2	13
Willingness to work	3	22
Teamwork	4	2
Establishing & maintaining interpersonal contact	5	16
Learning skills	6	3
Application of knowledge	7	8
Problem solving	8	9
Diligence	9	15
Taking initiative	10	25
Critical thinking	11	12
Written communication	12	6
Work under pressure	13	5
IT usage	14	4
Positive attitude towards change	15	23
Thinking outside the box and innovativeness	16	17
Subject knowledge	17	1
Independence	18	18
Practical experience	19	10
Self-confidence	20	11
Desire for achievement	21	14
Intelligence	22	30
Opportunity recognition	23	20
Negotiation skills	24	29
Public speaking	25	7
Persuasion	26	26
Sense of humour	27	31
Making judgment on basis of limited information	28	19
Usage of social networks	29	24
Foreign languages	30	27
Achievement in sport	31	28
Aggression	32	32

We can see from the results when we investigate them in this was that it is apparent that for the skills that the three respondent groups find important, it is not reflected in the top skills that are contributed by HEIs. This misalignment has huge implications in terms of curriculum design and effective communication. These findings are interesting as it shows that educators either are not sufficiently equipped through lack resources or through curriculum design to contribute to employability skills in the way that the market

demands. Employers and students also feel that HEIs are not meeting their needs, furthering the frustrations of the benefactors.

Comparing what employers want and what students believe they receive from HEIs in terms of the development of their skills is at odds. Table 5.10 outlines the disparity below.

**Table 5. 10: Employers Desired Skills versus Students Perception of HEI contribution**

Skill	Employers	Students
	Importance	Contribution
Willingness to work	1	13
Enthusiasm and motivation	2	29
Teamwork	3	10
Work ethic	4	6
Learning skills	5	24
Application of knowledge	6	14
Diligence	7	17
Positive attitude towards change	8	3
Problem solving	9	11
Establishing & maintaining interpersonal contact	10	19
Taking initiative	11	20
Written communication	12	8
Critical thinking	13	2
Work under pressure	14	7
Desire for achievement	15	16
IT usage	16	26
Thinking outside the box and innovativeness	17	21
Subject knowledge	18	12
Self-confidence	19	5
Intelligence	20	32
Practical experience	21	24
Independence	22	30
Opportunity recognition	23	18
Negotiation skills	24	1
Making judgment on basis of limited information	25	28
Sense of humour	26	4
Persuasion	27	25
Public speaking	28	31
Usage of social networks	29	9
Foreign languages	30	15
Achievement in sport	31	23
Aggression	32	22

## 5.6 Findings - Croatia

This section outlines the findings in a Croatian context with relation to the importance to employability skills and the contribution the HEIs make towards the development of employability skills. Table 5.11 presents the means for each variable and the differences between respondent attitudes regarding the importance of the variables for employability by the three respondent groups (employers, students and educators) in Croatia. This data is a comparator data set. The data was collected, and results analysed by Ljerka Sedlan Kőnig, Petra Mezulić Juric and Tihana Koprivnjak, of The Josip Juraj Strossmayer University of Osijek, Croatia. This data is from 2015. Although there is certain agreement in opinion among respondents in the survey, the study revealed considerable differences in perspectives between the respondent groups, with regard to skills and attributes needed for employability. Some of the key findings of the triangular model are indicated below.



**Table 5. 11: Estimation of importance of employability skills – comparison between employers, students and educators - Croatia**

Dimensions	Employers		Students		Educators		<i>p Value*</i>
	Mean	Rank	Mean	Rank	Mean	Rank	
Problem solving	6.30	1	6.15	4	6.00	4	0.1823
Learning skills	6.19	2	5.74	20	5.93	6	0.0018
Willingness to learn	6.16	3	6.16	2	6.03	3	0.5633
Enthusiasm and motivation	6.16	4	5.89	16	5.70	19	0.0162
Intelligence	6.11	5	5.97	12	5.86	11	0.3321
Establishing and maintaining interpersonal contact	6.09	6	5.87	17	6.07	2	0.4077
Application of acquired knowledge	6.08	7	5.93	15	6.10	1	0.9938
IT usage	6.08	8	6.16	3	5.93	5	0.1939
Foreign language	6.04	9	6.25	1	5.93	7	0.0091
Diligence	5.99	10	5.99	11	5.77	12	0.4522
Teamwork	5.99	11	6.03	8	5.77	13	0.1272
Thinking "outside the box" and innovativeness	5.98	12	5.99	10	5.73	17	0.1892
Desire for achievement	5.95	13	5.93	14	5.57	22	0.1303
Positive attitude towards change	5.94	14	6.12	5	5.90	10	0.1244
Written communication	5.91	15	6.06	7	5.67	20	0.0162
Opportunity recognition	5.89	16	5.77	19	5.70	18	0.4477
Discipline	5.75	17	5.64	23	5.73	15	0.8954
Work ethics	5.73	18	5.38	28	5.17	30	0.0422
Self-confidence	5.73	19	5.94	13	5.90	8	0.1123
Taking initiative	5.71	20	5.54	25	5.40	26	0.2015
Negotiation skills	5.65	21	6.00	9	5.63	21	0.0266
Work under pressure	5.65	22	5.60	24	5.38	27	0.5978
Independence	5.54	23	5.68	21	5.13	31	0.0629
Making judgments on basis of limited information	5.49	24	5.67	22	5.77	14	0.5891
Critical thinking	5.45	25	5.20	30	5.73	16	0.0270
Persuasion	5.41	26	5.86	18	5.40	25	0.0003
Strong orientation to achievement	5.34	27	5.41	27	5.23	29	0.8980
Public speaking	5.21	28	6.09	6	5.43	24	0.0000
Practical experience	5.10	29	5.49	26	5.90	9	0.0363
Subject knowledge	4.86	30	4.94	31	5.43	23	0.1505
Usage of social networks	4.70	31	5.24	29	4.93	32	0.0146
Sense of humour	4.61	32	4.16	32	4.73	33	0.0129
Grade point average (GPA)	3.95	33	3.96	33	5.30	28	0.0000
Attractive appearance	3.29	34	3.72	34	3.70	34	0.1978
Achievement in sport	3.28	35	3.07	35	3.27	36	0.4263
Aggression	2.89	36	3.01	36	3.57	35	0.1170

\*p-value is given for Kruskal-Wallis ANOVA test

(Sedlan König et al., 2016)

Table 5.12 depicts the perception of HE contribution to development of employability skills. This data is a comparator data set. The data was collected, and results analysed by Ljerka Sedlan Kónig, Petra Mezulić Juric and Tihana Koprivnjak, of The Josip Juraj Strossmayer University of Osijek, Croatia. This data is from 2015. As can be seen from the data, the three respondent groups agree that HE contributes the least to gaining sense of humour, development of general intelligence, aggression and achievement in sport, and the most to teamwork, willingness to learn and use of IT. Additionally, employers point out a significant contribution of teaching at HEI to acquisition of foreign language skills (4.68), written communication (4.58) and discipline (4.54), educators to public speaking skills (5.63), acquisition of subject knowledge (5.63), learning skills (5.07), and interpersonal relationships (4.97).

**Table 5. 12: Estimation of HE contribution to development of employability skills - comparison between employers, students and educators - Croatia**

Dimensions	Employers		Students		Educators		<i>p</i> Value*
	Mean	Rank	Mean	Rank	Mean	Rank	
Subject knowledge	4.91	1	4.65	10	5.63	2	0.0004
IT usage	4.87	2	5.03	3	5.37	3	0.4577
Foreign language	4.68	3	4.51	13	4.93	9	0.3940
Teamwork	4.68	4	5.53	1	5.33	4	0.0001
Willingness to learn	4.59	5	4.84	7	5.20	5	0.3123
Written communication	4.58	6	4.99	4	4.47	20	0.0394
Discipline	4.54	7	4.27	17	4.67	16	0.2177
Public speaking	4.51	8	5.49	2	5.63	1	0.0000
Diligence	4.44	9	4.52	12	4.83	12	0.7490
Work under pressure	4.39	10	4.87	6	4.93	10	0.0647
Establishing and maintaining interpersonal contact	4.25	11	4.72	8	4.97	8	0.0559
Learning skills	4.16	12	4.15	25	5.07	7	0.0180
Problem solving	4.14	13	4.46	14	4.60	18	0.3163
Positive attitude towards change	4.13	14	4.89	5	4.77	14	0.0015
Independence	3.95	15	4.40	15	4.80	13	0.0791
Usage of social networks	3.86	16	4.67	9	5.17	6	0.0002
Self-confidence	3.86	17	4.23	19	4.40	24	0.1541
Strong orientation to achievement	3.85	18	4.17	23	4.50	19	0.1628
Critical thinking	3.85	19	4.08	27	4.30	28	0.3081
Desire for achievement	3.82	20	4.62	11	4.87	11	0.0008
Negotiation skills	3.81	21	4.25	18	4.77	15	0.0098
Work ethics	3.80	22	4.16	24	4.30	30	0.2448
Persuasion	3.65	23	4.10	26	4.30	29	0.0490
Application of acquired knowledge	3.65	24	3.63	31	4.63	17	0.0029
Thinking "outside the box" and innovativeness	3.61	25	4.17	22	4.40	25	0.0228
Enthusiasm and motivation	3.61	26	4.22	20	4.43	22	0.0083
Taking initiative	3.58	27	4.08	28	4.20	31	0.0276
Making judgments on basis of limited information	3.58	28	4.21	21	4.33	27	0.0091
Practical experience	3.57	29	3.67	30	4.43	23	0.0557
Intelligence	3.46	30	3.96	29	4.38	26	0.0133
Opportunity recognition	3.44	31	4.30	16	4.43	21	0.0000
Aggression	2.67	32	2.45	33	2.62	34	0.3393
Sense of humour	2.67	33	2.57	32	2.90	33	0.4900
Achievement in sport	2.54	34	2.31	34	3.40	32	0.0036

\*p-value is given for Kruskal-Wallis ANOVA test

(Sedlan König et al., 2016)

## 5.7 Findings – Ireland

This section outlines the findings in an Irish context with relation to the importance to employability skills and the contribution the HEIs make towards the development of employability skills. Table 5.13 below presents the means and ranking estimating the importance of employability skills from three respondent groups (employers, students and educators) for Ireland. The survey asked the three groups to assign a value on the Likert scale from 1-7 to each skill. The three groups examined for the purpose of this survey were employers, students and educators. The results show that there are many interesting similarities and differences when compared with each other. The main aim of the survey was to collect data to determine the most important employability skills perceived by each group. The results of the survey would give a good insight to whether employers, students and educators perception of employability skills were aligned or not, to see where the gaps lie, if any, and what could be done to bridge any gaps.

**Table 5. 13: Estimation of importance of employability skills – comparison between employers, students and educators – Ireland**

Dimension	Employers		Students		Educators		<i>p</i> Value*
	Mean	Rank	Mean	Rank	Mean	Rank	
Willingness to work	6.83	1	5.38	21	6.46	3	0
Enthusiasm & motivation	6.48	2	5.29	24	6.54	1	0
Teamwork	6.48	3	5.8	10	6.31	4	0.73
Work ethic	6.41	4	5.42	20	6.51	2	0.01
Learning skills	6.28	5	6.48	1	6.23	6	0.04
Application of knowledge	6.21	6	5.83	8	6.21	7	0.05
Diligence	6.17	7	5.86	7	6.18	9	0
Positive attitude towards	6.1	8	5.34	23	5.79	15	0
Problem solving	6.07	9	5.73	13	6.18	8	0.01
Establishing & maintaining interpersonal contact	6.03	10	3.13	31	6.26	5	0
Taking initiative	6	11	5.52	17	6.08	10	0
Written communication	5.97	12	5.49	18	5.87	12	0
Critical thinking	5.93	13	5.79	12	6.05	11	0.16
Work under pressure	5.93	14	5.66	15	5.87	13	0.35
Desire for achievement	5.83	15	5.91	6	5.62	21	0.1
IT usage	5.69	16	6.12	3	5.82	14	0.02
Thinking outside the box and innovativeness	5.66	17	6.04	4	5.77	16	0
Subject knowledge	5.59	18	5.57	16	5.77	17	0.06
Self-confidence	5.55	19	5.12	26	5.67	20	0.01
Intelligence	5.52	20	2.7	32	5.49	22	0
Practical experience	5.45	21	4.55	28	5.72	19	0
Independence	5.34	22	5.46	19	5.74	18	0.12
Opportunity recognition	5.1	23	6.01	5	5.41	23	0.09
Negotiation skills	4.76	24	5.69	14	5.23	24	0.03
Make judgments on basis of limited information	4.76	25	6.31	2	5	28	
Sense of humour	4.72	26	5.8	11	5.03	27	0
Persuasion	4.66	27	5.82	9	5.08	26	0
Public speaking	4.41	28	4.94	27	5.21	25	0.21
Usage of social networks	4.1	29	5.34	22	4.26	29	0
Foreign languages	3.9	30	5.19	25	4.05	30	0
Achievement in sport	3.14	31	4.1	29	3.28	31	0.01
Aggression	2.17	32	3.85	30	2.56	32	0

\*p-value is given for Kruskal-Wallis ANOVA test

Table 5.14 below presents the means and ranking taken from three respondent groups estimating the contribution HEIs make to employability skills. The three groups examined for the purpose of this survey were employers, students and educators. The results show that there are many interesting similarities and differences when compared with each other. The main aim of the survey was to collect the data to determine the predominant skills contributed by higher education to the development of employability skills perceived by each group. The results of the survey provide insight into employers', students' and educators' perception of HEIs contribution to employability skills.

**Table 5. 14: Estimation of HE contribution to development of employability skills - comparison between employers, students and educators - Ireland**

Dimension	Employers		Students		Educators		<i>p Value*</i>
	Mean	Rank	Mean	Rank	Mean	Rank	
Subject knowledge	5.79	1	4.76	12	6.41	1	0
Learning skills	5.76	2	3.56	27	5.46	3	
Written communication	5.52	3	4.93	8	5.36	6	0
Teamwork	5.41	4	4.83	10	5.72	2	0.14
IT usage	5.34	5	4.13	26	5.44	4	0
Application of knowledge	5.31	6	4.75	14	5.28	8	0.01
Problem solving	4.93	7	4.79	11	5.18	9	0.2
Public speaking	4.9	8	3.03	31	5.33	7	0
Critical thinking	4.9	9	5.36	2	4.87	12	0.02
Work under pressure	4.83	10	5.04	7	5.38	5	
Intelligence	4.83	11	2.99	32	3.9	30	0
Desire for achievement	4.79	12	4.6	16	4.82	14	0.37
Establishing & maintaining interpersonal contact	4.69	13	4.45	19	4.72	16	0.63
Diligence	4.66	14	4.48	17	4.77	15	0.26
Work ethics	4.59	15	5.06	6	4.85	13	0.09
Self-confidence	4.55	16	5.12	5	5.05	11	0.44
Independence	4.55	17	3.12	30	4.64	18	0
Positive attitude towards change	4.48	18	5.28	3	4.38	23	0.06
Thinking outside the box and innovativeness	4.48	19	4.42	21	4.64	17	0.79
Foreign languages	4.41	20	4.71	15	4	27	0.01
Usage of social networks	4.24	21	4.9	9	4.31	24	0.96
Willingness to work	4.24	22	4.76	13	4.38	22	0.01
Enthusiasm and motivation	4.21	23	3.52	29	4.38	21	0
Opportunity recognition	4.21	24	4.47	18	4.41	20	0.79
Practical experience	4.1	25	4.26	24	5.18	10	0
Taking initiative	4.03	26	4.45	20	4.28	25	0.41
Achievement in sport	3.86	27	4.27	23	3.97	28	0.32
Negotiation skills	3.72	28	5.7	1	3.9	29	0
Making judgments on the basis of limited information	3.72	29	3.55	28	4.59	19	0
Persuasion	3.59	30	4.21	25	4.13	26	0.73
Sense of humour	2.97	31	5.28	4	3.36	31	0
Aggression	2.66	32	4.36	22	2.54	32	0

\*p-value is given for Kruskal-Wallis ANOVA test

## 5.8 Examining the Cross-County Findings

### 5.8.1 Croatia - Estimation of Importance of Employability Skills

In Table 5.11, as expected, all three groups value aggression, achievement in sport, sense of humour and attractive appearance as the least important in obtaining and securing a job. Interestingly, employers and students give little importance to Grade Point Average (GPA) during studies (means 3.95 and 3.96 respectively), whereas educators provide much higher value for it (5.30). The fact that as many as 98% of employers would rather employ a candidate with poorer (GPA), if he/she had good communication skills, intelligence, discipline, the desire for achievement and work ethics, is also thought provoking. Employers do not give high mean scores to subject knowledge, usage of social networks, or public speaking skills. Practical experience is not assigned a high value either, although employers value application of knowledge. Later in the survey, 88% of employers and 97% of students agree that during time in HE, not enough attention is given to the application of knowledge. Similarly, students do not consider subject knowledge important (rank 31), and rate critical thinking, usage of social networks and work ethics rather low in importance. Likewise, educators rank work ethics and grade point average (GPA) during studies low (rank 30 and 28 of 36, respectively) in importance for employability, as well as independence (rank 31) and taking initiative (rank 26). Low ranking of work ethics particularly by Educators and students was shown in the results. On the other hand, the results of this study compliments previous research conducted. The research echoes that for performance in an employment environment, application of knowledge, non-technical skills and certain personal attributes are more important than subject knowledge.

All three groups value foreign language skills, solving problems, willingness to learn and IT usage highly. However, the findings suggest that there are significant differences in the rankings given for employability skills and attributes by the respondent groups. Among selected employability skills, employers characterize problem solving, learning skills, and willingness to learn as the most important employability skills. Enthusiasm and motivation, intelligence and establishing and maintaining interpersonal contact also score high. Among the valuable skills, employers also include application of acquired knowledge, IT usage and foreign language skills. These results indicate that employers in Croatia are looking for well-developed young people with a number of attributes as their future employees.



Students also include problem solving skills and willingness to learn among the most important employability skills, but they value foreign language skills, IT usage and positive attitude towards change as critical, too. Surprisingly, in their rating, Educators give the highest rank to application of knowledge. In particular, of all respondent groups, educators give the highest means to application of knowledge (6.10). They also assess highly the importance of interpersonal relationships, willingness to learn, problem solving skills and IT usage. Interesting finding is also that, employers estimate the importance of learning skills much higher than practical experience or subject knowledge. Furthermore, subject knowledge is, by all respondent groups rated rather low in importance. Low rank for practical experience (rank 29) given by employers is surprising because it is widely agreed that graduates with work experience are more likely to secure employment than graduates without.

At level of significance of 5%, differences in importance of some skills and attributes between three groups can be seen, in particular for persuasion, written communication, critical thinking, public speaking and ethics. Significant gaps in values are also observed for learning skills, as employers rank them much higher (6.19) than Educators (5.93) or students (5.74). Foreign language skills ranked most important by students (6.25), much less so by employers (6.04) and Educators (5.93). This may be particularly important for Croatia, as foreign language proficiency such as English would be important for commerce. Public speaking skills are thought highly of by students (6.09), they score much less by Educators (5.43) and employers (5.21). Educators (5.79) and employers (5.80) as opposed to students (6.11) observe significant differences for teamwork.

Interestingly, typically entrepreneurial attributes such as problem solving, making judgments based on limited information, taking initiative, thinking outside the box, determination to be independent, strong orientation to achievement, work under pressure and positive attitude towards change are considered by all three groups rather unimportant for employment, with the exception of problem solving skills. Initiative, achievement and independence are particularly low. Remarkably, low values, by all groups (educators: 5.23; employers: 5.34; students: 5.41) are attached to strong orientation to achievement. Of the three groups, only students set a high value (6.12) on positive attitude towards change, and employers particularly value enthusiasm and motivation (6.16). These results are surprising given the literature where Audibert and Jones (2002) asserts that

entrepreneurial attributes have become critical for hiring and promoting employees, and entrepreneurial, innovative, creative and adaptable employees are widely considered valuable for any organisation. Moreover, the results are disturbing because entrepreneurship is recognised as one of the key competences for life-long learning according to the EU Parliament, 2006. It seems that in Croatia employers, HEI educators, as well as graduates themselves are unaware of what employability skills are, much less how to acquire them.

### **5.8.2 Croatia - Estimation of HE Contribution to Development of Employability Skills**

In Table 5.12, students rate the contribution to public speaking skills (5.49) highly and add significant contribution of teaching to written communication (4.99), positive attitude to changes (4.89) and work under pressure (4.87).

On the other hand, employers, educators and students agree that HE contributes little to taking initiative and gaining practical experience. The opinion of HEI educators is significantly different from that of employers, in particular for negotiation, general intelligence and opportunity recognition. HEI educators value contribution to these as very high, whereas employers value it as the lowest. It is interesting that, in general, HEI educators value the contribution of teaching at the Faculty of Economics to the acquisition of employability skills with higher grades than students or employers. In this study, employers seem to share the opinion that students in general leave faculty with good knowledge of the field studied, but employers do not seem to consider subject knowledge critical for good performance in the employment environment. In their opinion, other dimensions such as learning skills and willingness to learn as well as enthusiasm and motivation are much more important for employment.

In addition, 86% of employers and 75% of students agree that senior students lack soft skills. This is in line with previous research from Rosenberg et.al. (2012), which demonstrated that soft skills are the most deficient skills received in HEI. In summary, there is (except for IT usage and teamwork), much variation across these variables for respondents' groups. Some of the interesting differences include the following; Educators and employers believe that HEI significantly contributes to gaining subject knowledge, but students agree with that in lesser degree. In addition, students and especially educators believe that teaching at the Faculty of Economics contributes significantly to the

improvement in public speaking skills, but the employers do not share that opinion. Interestingly, employers value the contribution to foreign language skills highly, but students and Educators do not share the same view. Students and employers are not satisfied with the impact of HEI in application of knowledge. In addition, employers set a low value on the contribution of HEI to enthusiasm, desire to achievement, ability to see opportunities, negotiation skills, use of social networks, whereas Educators and students appreciate the impact much more.

The presented results show that there is a lot of disagreement between respondent groups regarding HE contribution to development of employability skills. Overall, employers assess the contribution of HE to development of employability skills with the lowest values, although they believe the role of HE in increasing student employability is very important. Actually, all three groups estimated the role of HE in this as very important (73% of employers, 52% Educators and 49% students). All three groups of respondents agree that not enough attention is paid to the application of acquired knowledge, and that senior students lack soft skills. They all share the opinion that cooperation between faculties and industry is the crucial factor for increasing students' employability and 88% of employers would gladly take part in designing the curriculum for certain courses.

The impact of HE on entrepreneurial skills (problem solving, making judgments on the basis of limited information, taking initiative, thinking out of the box, determination to be independent, strong orientation to achievement, work under pressure and positive attitude towards change) is in general assessed by all three groups of respondents, especially Educators, as rather low. Contribution of HE to work under pressure and positive attitude towards change, of all entrepreneurial skills hold the highest means. Additionally, employers order problem solving, positive attitude towards change, determination to be independent and desire to achievement among entrepreneurial skills, which are sufficiently developed during HE. Students seem most satisfied with the contribution of teaching at the Faculty of Economics to development of desire to achieve, problem solving, determination to be independent and opportunities recognition. Educators, on the other hand, appreciate greatly the contribution of teaching to desire to achieve, determination to be independent and problem solving. In response to the need for more employable graduates, HEIs in Croatia are increasingly affirming entrepreneurial education as a core part of their curriculum, but these efforts are not

enough, as more attention has to be paid to effective methods of teaching, as the results signal that teaching at Faculty of Economics weakly contributes to development of entrepreneurial skills.

### **5.8.3 Ireland - Estimation of Importance of Employability Skills**

We can see in Table 5.13, interestingly, from first glance at the data is that you can very easily see that employers and educators react to the importance of employability skills at very similar levels. The scale at which employers rated the importance of the variables almost mirrors that of educators. By contrast, you can see that students seem to have a very different view as to what employability skills are more important and what skills are not. From our initial analysis we can see that there is a disconnect between what employers want from an employee in terms of employability skills and what students believe to be important skills for employability.

Similar to the Croatian findings, achievement in sport and aggression were seen as the least desirable employability skills. This is certainly true in the context of employers and educators. Students ranked these two skills low in importance however they deemed establishing and maintaining interpersonal contact and intelligence as the least important employability skills. Both employers and educators believe that establishing and maintaining interpersonal skills are very important skills ranking them 10th and 5th respectively for employers and educators. Both employers and educators rate intelligence at 20 and 22 out of 32, respectively, which is considerably higher than the opinion of students who interestingly consider intelligence the least important skill when it comes to employability.

We can also see very similar results from employers and educators for the most desired employability skills. Willingness to work, enthusiasm and motivation, teamwork, work ethic and learning skills all appeared to be the most important skills, in varying order that were similar to both sets of respondents. Students did rank learning skills as the most important skill for employability. They believe making judgements on the basis of limited information, IT usage, thinking outside the box and innovativeness and opportunity recognition to be the most important skills. The only skill that ranked high in importance to all sets of respondents was learning skills. Considering the amount of emphasis placed on practical work experience in terms of HEI course objectives, employers' contribution to work placements and job requirements and educators' preparation for work placements

in HEIs, all three respondent groups placed a low importance on practical work experience skills. This is an interesting finding considering a lot of energy and importance is expended on this skill by all respondent groups.

When examining the educators' data against employers' data there are only three main skills that are placed out of sequence when compared. Educators ranked positive attitude toward change (15) of lower importance than employers (8), they ranked, establishing and maintaining interpersonal contact (5) higher than employers (10) and desire for achievement was ranked 21<sup>st</sup> by teacher in comparison to employers who ranked it 15<sup>th</sup>. All other employability skills either were considered to be of the same importance or had a maximum of two places separating the data. This is reassuring statistic showing that employers and educators perceptions about employability and skills needed for students are relatively on par with one another.

Foreign language skills rank extremely low for all three respondent groups. Foreign language skills are considered of lower importance than use of social networks, persuasion and even sense of humour in all three groups surveyed. Employers also consider a sense of humour to be more important than having public speaking skills. This finding is reflected in The National Employers Survey (Higher Education Authority, 2015a), where approximately 25% of all employers surveyed indicated that they had a specific requirement for foreign language proficiency skills in their organisation. This proportion was highest for foreign employer organisations (32%) and lowest for indigenous employer organisations (22%) however this means that 75% of companies within Ireland do not have a requirement for foreign language skills.

The National Employers Survey (2015a) also found that there was a lack of entrepreneurial skills among graduates. Employers showed a low level of satisfaction when surveyed in the report. Employer organisations of HE graduates were asked to rate their level of satisfaction with graduate recruits as they relate to a series of workplace attributes. Only 50% of employers were satisfied with "entrepreneurial skills". This finding was one of the lowest ranked skills in terms of satisfaction in the report. As we determined from our analysis that students perceive entrepreneurial skills such as thinking outside the box (mean 6.04), independence (mean 5.46), opportunity recognition (mean 6.01) and making judgements on the basis of limited information (mean 6.31) higher than that of employers. In particular, students ranked making judgements on the basis of

limited information, thinking outside the box and innovativeness and opportunity recognition as 2<sup>nd</sup>, 4<sup>th</sup> and 5<sup>th</sup> of skills that they felt was most important for employability. Employers placed working under pressure slightly higher importance in 14<sup>th</sup> place (students' 15<sup>th</sup> place), positive attitude towards change (mean 6.1034), problem solving (mean 6.0690) and taking initiative (mean 6.000) higher than that of students. This research suggests that students are placing higher importance on certain entrepreneurial skills than the skills of what employers are looking for. The four entrepreneurial skills that employers felt were most important were the four skills that students felt were the least important and the opposite is also true. Surprisingly, the four most important entrepreneurial skills according to students were the four least important skills in the eyes of employers. Reassuringly, it does show however that students are placing high importance on entrepreneurial skills. The National Employers Survey (2015a) highlights that employers are dissatisfied with the levels of entrepreneurship displayed by students however; the research shows that employers are not placing high enough importance on entrepreneurial skills when rating employability skills of graduates.

#### **5.8.4 Ireland - Estimation of HE Contribution to Development of Employability Skills**

Table 5.14 demonstrates that employers and educators seem to have the relatively similar rankings in terms of how they view HEIs contribution to the development of the employability skills surveyed however there are differences between the two groups. Students differ in their opinions to employers and educators on how HEIs contribute to the development of employability skills. There appears to be a disconnect between what educators believe they are imparting on students and what students feel their HEI is contributing towards making them more employable.

Both employers (mean 5.79) and educators (mean 6.41) rank subject knowledge as the main skill contributed by HEIs in terms of developing employability skills. Students consider that subject knowledge is not a major contribution (mean 4.76). This is more in line with how both employers and educators place importance on this skill as they rank it 18<sup>th</sup> and 17<sup>th</sup> respectively in terms of the importance of employability skills. Teamwork, IT skills and learning skills were also comparable outputs in terms of the high level of contribution by both employer and educators. Students considered IT and learning skills one of the lowest outputs in terms of the HEIs contribution to developing these skills. Students felt that HEIs contributed mostly to skills such as negotiation skills, (5.70 mean),

critical thinking (5.36 mean), positive attitude towards change (5.28), sense of humour (5.28 mean) and self-confidence (5.12 mean). While not surprisingly sense of humour ranked second last on the list of skills from the employers and educators' perspective (2.96 mean and 3.36 mean respectively). When comparing student most valued skills with employers and educators, positive attitude towards change and negotiation skills are not high contributors from the employers and educators' perspective except in terms of critical thinking. Critical thinking is a high contributor from all three respondent groups. Students believe that HEIs contribute greatly to their confidence (5.12 mean) however educators do not have as a high a belief that they instil confidence in young graduates as they ranked this contribution lower (5.05 mean)

Intelligence ranked low in HEIs contribution to developing employability skills from both a student (2.90 mean) and employers (3.90) viewpoint. Employers felt that the contribution made by HEIs was greater (4.29 mean). Students ranked it as the skill that HEIs contribute the least to the development of employability skills and educators ranked it 30 out of 32. Students also ranked intelligence the least important employability skill (2.70). Another skills contribution is the level at which educators believe HEIs contribute in terms of practical experience. Educators feel that the contribution is relatively high, placing it in 10<sup>th</sup> place however employers and students do not feel the HEIs contribute to this skills as they rate it 25<sup>th</sup> and 24<sup>th</sup> respectively. However, according to The National Employers survey (2015a), employers expressed the view that they felt that HEIs were not providing "More practical workplace experience through placements or work experience programmes". In the current study, all three respondent groups considered practical experience not to be an important skill for employability.

Student rank public speaking low on contribution (3.03 mean) however employers and educators rate this much higher (4.90 and 5.33 respectively). Students also see independence as a poor contributor (3.12 mean) this is in contrast to employers (4.55 mean) and educators (4.64 mean). Both students and employers believe that contribution to the development making judgements based on limited information ranks particularly low. 28<sup>th</sup> and 29<sup>th</sup> place respectively. Whereas educators believe that the contribution is higher, placing it in 19<sup>th</sup> place. While aggression was the lowest contributor to the development of skills from the employers and educators' perspective students considered that HEIs were somewhat contributing to the development of aggression.

When examining the entrepreneurial attributes that are the greatest contribution to the development of employability skills, problem solving and working under pressure are high contributors for all respondent groups. Positive attitude towards change is ranked high for students (5.28) while employers (4.48 mean) and educators (4.38) see this as a low contributor. Independence, thinking outside the box and innovativeness, opportunity recognition, taking initiative and making decisions based on limited information are all seen as low contributors by all respondent groups. It is stated in The National Employers Survey (2015a) that employers made specific requests for more entrepreneurial spirited graduates as Irish HEIs were falling short of the mark when providing graduates with these skills. The current study shows that all respondent groups feel that HEIs contribution to the development of these skills is low.

When comparing the importance of skills contribution to graduate employability to HEIs contribution to employability skills, teamwork is the only variable that ranks highly across all three respondent groups in both categories. Learning skills also ranks high in the majority of cases except when it comes to student's perception of the HEIs level of contribution to this skill. Written communication ranks high in the HEIs contribution from all respondent groups however all respondent groups agree that this is not an important skill when it comes to employability.

### **5.9 Croatia and Ireland Findings Compared**

When comparing the Croatian data with the Irish data there are many similarities in the skills that both sets of employers believe not to be important for employability. These skills are aggression, achievement in sport, usage of social networks, public speaking, sense of humour and making judgements based on limited information. Two key differences that appear in the results are that foreign language skills and intelligence ranks higher for Croatia than Ireland. Foreign language skills and intelligence is rated 30<sup>th</sup> and 20<sup>th</sup> in Ireland respectively and 9<sup>th</sup> and 5<sup>th</sup> in Croatia. Croatian employers may require more language skills in order to conduct commerce due to their geographic location in Europe and that English is not a first language for the majority of the population. Attitudinal variances over the term "intelligence" may contribute to the different results for this skill in both countries. Enthusiasm, motivation and learning skills rank highly on both sets of data for employers. Croatia considered learning skills to be the second most important skill (6.19 mean) and Ireland ranked it 5<sup>th</sup> (6.29 mean). Enthusiasm and



motivation placed 4<sup>th</sup> in the Croatian data collected (6.16 mean) and 2<sup>nd</sup> in the Irish data (6.28 mean)

From the student's data, the ranking of foreign language skills differs. Student rank foreign language skills as the single most important skill for employability in Croatia; however Irish data shows that students rank it as one of the least important skills (5.19 mean). IT usage is the third most important skill to the two student groups, Croatia (6.16 mean) and Ireland (6.12 mean). Both aggression and achievement in sport rank extremely low on the scale of importance as well as use of social networks and practical experience. Data from Croatia shows that public speaking and intelligence is an important skill however in terms of the Irish data, students placed them at the other end of the scale considering these skills to be one of the least important. Croatian data considered public speaking to be 6<sup>th</sup> place (6.09 mean) and Intelligence placed 12<sup>th</sup> (5.97 mean). Irish data showed that public speaking was ranked 27<sup>th</sup> place (4.94 mean), which is also in line with the level of importance that employers and educators place on the skill from both Croatia and Ireland, rating it of very low importance. Irish data from students show that learning skills is the single most important skill in terms of employability. This aligns with how employers and educators from both Croatia and Ireland view the level of the importance of this skill, not dropping below 6<sup>th</sup> place for all respondent groups with the exception of the data collected from Croatian students.

Both educators in Croatia and Ireland agree that the application of knowledge, learning skills and establishing and maintaining interpersonal contact is a highly important skill for employability. Both respondent groups agree most upon these three skills. Also, both sets of groups agree that aggression, achievement in sport, usage of social networks, public speaking and persuasion skills were the least important skills. Both sets of educators seem to be in agreement with the skills that are most important with very little or no significant differences in opinion when it comes to the relevance of other skills towards employability.

The entrepreneurial skills identified from the literature and within the list were problem solving, working under pressure, desire for achievement, independence, positive attitude towards change, thinking outside the box and innovativeness, opportunity recognition, taking initiative and making judgments based on limited information. These skills ranked particularly low in among all respondent groups in general for the exception of problem

solving skills. We can see from the data, when put in context, that there are similarities between all respondent groups surveyed from both countries. Predominantly, problem solving and positive attitude towards change was seen to be one of the most important entrepreneurial skills in both countries whereas making judgements because of limited information and independence were the skills that were commonly ranked particularly low among all groups. One of the biggest differences seen in the rankings was seen in working under pressure. This was ranked higher in all respondent groups in Ireland than in Croatia. Problem solving and working under pressure were generally ranked highest when it came to HEIs contribution to the development of employability skills while making judgements on the basis of limited information and taking initiative were the least contributed skill in terms of the HEIs contribution overall. In saying this, all entrepreneurial skills were ranked low in general; this is surprising considering employers say they want more entrepreneurial graduates. The data shows however that employers do not place much value on entrepreneurial skills in general. Interestingly we see that Opportunity recognition is not an important skill to employers overall. Opportunity recognition within an organisation could be seen to harness the intrapreneur within the organisation and contribute towards innovations of which employers anecdotally say they require.

### **5.9.1 Analysis of Entrepreneurial Skills in Context**

When comparing the sets of data, overall the three sets of respondents for Croatia and Ireland rank subject knowledge as the largest contributor common to the employers and educators' groups. When compared to the importance of this skill from all respondent groups across both countries, this was not determined to be an important skill with no group ranking it below 16<sup>th</sup>. IT usage, teamwork, written communication and learning skills are also important contributions to both sets of respondents. When we compare these sets of skills with the level of importance that employers place on them, the only skill that is common to both is learning skills with the exception of IT usage from a Croatian perspective. This shows that the top skills that are ranked important for employability are not believed to be the largest skills contributed by HEIs. The Irish data shows that HEIs contribute to the intelligence of the individual (4.83 mean) greater than what the Croatian data shows (3.46 mean).

It seems that students experience in HEIs in Croatia and Ireland are very different in how they view their institute's contribution to employability skills. The level at which they rank contribution seem to be at odds with one another. When comparing Croatian and Irish data the two skills that HEIs contribute that are similar in importance are positive attitude towards change, written communication and work under pressure. IT usage and public speaking were large contributors in Croatian respondents (5.03 and 5.49 mean) these were considered lower contributors in the Irish context (4.13 and 1.74 mean). These variables lay at the opposite end of the scale for both respondent groups. Public speaking is not considered an important skill from all respondent groups, which would suggest that the right amount of emphasis is being placed in this skill from the HEIs contribution viewpoint however the data from Croatian students is the only respondent group that deems public speaking skills as highly important. In contrast to the Croatian data for students, Irish data considered critical thinking (5.36 mean), self-confidence (5.12 mean), negotiation skills (5.70 mean), sense of humour (5.28 mean) and work ethic (5.06 mean) as some of the largest contributors. Croatian data from students placed these contributions at the other end of the scale, critical thinking (4.08 mean), self-confidence (4.23 mean), negotiation skills (4.25 mean), sense of humour (2.57 mean) and work ethic (4.16 mean).

As previously noted, subject knowledge is a large contributor in both datasets for educators in both Croatia and Ireland (5.63 and 6.41). IT usage, learning skills and teamwork are common to both sets also as being large contributors. Irish data shows that written communication is a high contributor ranking it 6<sup>th</sup> however Croatian data shows that this skill is ranked 20<sup>th</sup> in its contribution. Both sets of educators believe that HEIs contribute the least to aggression, achievement in sport and sense of humour, which we expected to see. Educators from Croatia (4.30 mean) ranked work ethic low and high from Ireland (4.85 mean) and usage of social networks was ranked high at 6<sup>th</sup> place for Croatia and low at 24<sup>th</sup> place for Ireland. When examining contribution in terms of importance from the educator's point of view we can see that some of the contributions that are considered high contributors are not important skills from all respondents from both countries, such as subject knowledge. IT usage, teamwork and learning skill are high in importance to all respondent groups and those skills are common to both Croatia and Ireland in their belief to the contribution made to HEIs. This shows that HEIs are in general considered to be contributing to some of the most important skills in order to

make graduates employable in both Ireland and Croatia. Some gaps still exist however and need to be addressed such as; problem solving skills, establishing and maintaining interpersonal contact, diligence and application of knowledge, which are the most common skills that have a high level of importance across all respondent groups in both Croatia and Ireland.

### **5.10 Entrepreneurial Skills in the Context of the Findings**

Table 5.15 shows the full list of skills analysed by all three respondent groups in terms of importance for employability and contribution made by HEIs towards the development of these entrepreneurial employability skills. This list consists of a mix of hard, soft and entrepreneurial skills. The literature helped in identifying the skills that were particularly entrepreneurial from the large initial mixed list of skills. These entrepreneurial skills are clarified and assigned an entrepreneurial category in Table 5.15. These skills were analysed in isolation from the results in the context of how these particular entrepreneurial skills were firstly ranked in terms of importance and secondly in terms of the contribution made by HEIs. The results were examined under the three groups and for Ireland and Croatia. These skills were extracted and are shown in Table 5.16 and Table 5.17 respectively where their value is assigned against them. Table 5.18 shows the results in detail as a weighted total for skills importance and HEI contribution for both Croatia and Ireland. This table allows for a clear comparison between both countries views when it comes to entrepreneurial skills in particular when taken from a list of larger skills.

**Table 5. 15: List of Skills with Particular Emphasis on Entrepreneurial Skills**

Skills	Category (Entrepreneurial)
Achievement in Sport	
Aggression	
Application of Knowledge	
Critical Thinking	
Desire for Achievement	Entrepreneurial
Diligence	
Enthusiasm and Motivation	
Establishing & maintaining interpersonal relations	
Foreign languages	
Independence	Entrepreneurial
Intelligence	
IT usage	
Learning skills	
Making judgments on the basis of limited information	Entrepreneurial
Negotiation skills	
Opportunity recognition	Entrepreneurial
Persuasion skills	
Positive attitude towards change	Entrepreneurial
Practical experience	
Problem solving	Entrepreneurial
Public speaking	
Self-confidence	
Sense of humour	
Subject knowledge	
Taking initiative	Entrepreneurial
Teamwork	
Thinking out of the box and innovativeness	Entrepreneurial
Usage of social networks	
Willingness to work	
Work ethic	
Work under pressure	Entrepreneurial
Written communication	

Below in Table 5.16 and Table 5.17, the nine entrepreneurial skills identified in Table 5.15 are examined in isolation for both countries. They examine the importance of the entrepreneurial skills and contribution made to the development of entrepreneurial employability skills by HEIs from a Croatian and Irish viewpoint.

**Table 5. 16: Entrepreneurial Skills Ranked in Context of Skills List**

Skills	Employers		Students		Educators		$\Sigma$
	Contextual Ranking - Ireland	Contextual Ranking - Croatia	Contextual Ranking - Ireland	Contextual Ranking - Croatia	Contextual Ranking - Ireland	Contextual Ranking - Croatia	
Positive attitude towards change	1	4	9	2	4	2	22
Problem solving	2	1	5	1	1	1	11
Taking initiative	3	6	7	9	2	7	34
Work under pressure	4	7	6	8	3	8	36
Desire for achievement	5	3	4	4	7	6	29
Thinking outside the box & innovativeness	6	2	2	3	5	4	22
Independence	7	8	8	6	6	9	44
Opportunity recognition	8	5	3	5	8	5	34
Making judgments on basis of limited information	9	9	1	7	9	3	38

**Table 5. 17: Entrepreneurial Skills Ranked in Context of Contribution made from HEI to the Development of Entrepreneurial Skills**

Contribution of skills from HEIs	Employers		Students		Educators		Σ
	Contextual Ranking - Ireland	Contextual Ranking - Croatia	Contextual Ranking - Ireland	Contextual Ranking - Croatia	Contextual Ranking - Ireland	Contextual Ranking - Croatia	
Problem solving	1	2	3	4	3	4	17
Work under pressure	2	1	2	2	2	2	11
Desire for achievement	3	5	4	3	4	3	22
Independence	4	4	9	5	9	5	36
Positive attitude towards change	5	3	1	1	1	1	12
Thinking outside the box and innovativeness	6	6	7	8	7	8	42
Opportunity recognition	7	9	5	6	5	6	38
Taking initiative	8	7	6	9	6	9	45
Making judgments on the basis of limited information	9	8	8	7	8	7	47

Table 5.16 shows the weighting of the nine entrepreneurial skills in terms of the importance of skills by all three respondent groups. It also shows the average views from all three respondent groups in both countries as to the contribution HEIs make to the development of these entrepreneurial skills. The value of this table lies in the gaps that exists across countries when it comes to the attitudes of entrepreneurial skill higher education outcomes and market demand. It is evident from table 5.16 that the largest skills gap that exists across both countries when analysed was “working under pressure”. This skill is deemed not an important entrepreneurial skill on average across both countries however according to respondent groups, evident from Table 5.17, this skill is viewed as

being the skill that is developed most as part of higher education contribution to education from the list of skills. It seems that there is a complete mismatch at opposite ends of the scale in this instance. Other gaps exist within the table however; the skills are generally close on the scale when weighted against each other. What we can conclude from this is that largely the entrepreneurial skills that are considered most valued by employers, educators and students on average are the skills that HEIs contribute the most to in terms of their development.

Table 5.18 joins the Croatian and Irish views to easily identify the gaps. It shows that when both countries are analysed together, we can see where the entrepreneurial skills are positioned in the minds of the educators, employers and students. We see an overall view whereby we can compare the importance of certain entrepreneurial skills for Croatian and Irish educators, students and employers and how the respondent groups in both countries feel the HEIs contribution in terms of those entrepreneurial skills.

**Table 5. 18 : Skills Weighted Total for Skills Importance and HEI Contribution – Croatia and Ireland Total**

Skill	Skills Importance	HEI Contribution
Problem solving	1	3
Work under pressure	7	1
Desire for achievement	4	4
Independence	9	5
Positive attitude towards change	2 (Joint)	2
Thinking outside the box and innovativeness	2 (Joint)	7
Opportunity recognition	5 (Joint)	6
Taking initiative	5 (Joint)	8
Making judgments on the basis of limited information	8	9

### 5.11 Conclusion

This research shows that employers, students and educators have different perceptions about the skills and attributes that enhance graduate employability. In particular, students have a very different view of employability than employers and educators. Employers value problem solving skills, willingness to learn, enthusiasm and motivation as the most important employability skills. Entrepreneurial skills such as problem solving, working under pressure, desire for achievement, independence, positive attitude towards change, thinking outside the box and innovativeness, opportunity recognition, taking initiative and making judgments on the basis of limited information factor low in importance



among all respondent groups in general. Thinking outside the box and taking initiative were common in all respondent groups as the least contributing entrepreneurial skills made by HEIs, closely followed by opportunity recognition and making judgements because of limited information. Kozlinska (2016), argues that EE is capable of and should cater for diverse career aims of tertiary-level students. If an independent, journey is not the intended option, entrepreneurial employability progressing into intrapreneurship is a decent aim to pursue, holding the prospects of private business venturing in the future, should it be desirable and feasible (Bridge *et al.*, 2010).

Key differences across respondent groups and countries relate to perceptions around foreign language skills, which is probably not surprising from a non-English and an English speaking country. Particularly in Ireland, there appears to be a realism about the time and effort needed to acquire employability skills in a second language, which sits alongside a preference among employers to hire native speakers to meet their language skill requirements. Where both countries are similar is on the relatively low ranking of practical experience. Perhaps the perception here is that graduates will gain the most relevant experience once they take up employment post higher education.

The research is not exempt from certain limitations as it was limited to students at one HEI in Croatia, and one in Ireland. It is suggested that further studies be conducted to determine whether differences in attitudes exist concerning other HEIs and countries. Furthermore, the study focused on the outcomes in terms of employability and not on the specific inputs in terms of educational programmes and delivery, future research could explore this link in more depth. Finally, conducting the research using the survey instrument outlined here assumes that employers actually know and are willing and able to communicate what they are seeking from graduates. The reality is that they may not know for certain, or that their needs change based on internal and external forces. It is therefore, recommended that further research through focus groups or in-depth interviews are used to explore this question.

## Chapter 6 – Discussion

### 6.1 Introduction

The primary objectives of this thesis was to explore how third level graduate competencies acquired through receiving EE relates to employability in the Republic of Ireland. The results were cross-referenced with those from a similar study from Croatia to determine similarities and differences. This chapter presents a discussion and a conclusion to the thesis. This chapter will summarise and highlight emerging issues from the literature and findings as well as the most significant skills that have been found to impact employability and EE.

### 6.2 Literature Review

EE research has increasingly recognised the importance of developing the understanding of its outcomes including the development of entrepreneurial skills influencing employability and self-employment. EE is increasingly being viewed as a vehicle of value creation and economic growth (Matlay, 2008). The belief that educational efforts in entrepreneurship are capable of increasing socio-economic development by increasing entrepreneurial activity leads to investigating whether the skills learned because of EE efforts add value to an organisation as employees or increase the establishment new businesses as a result. The importance and increasing relevance of graduate employability and the gaps existing have also been investigated throughout the study. The employability of graduates has been the concern of different stakeholders including the graduates themselves. This is because graduates are claiming they do not possess the skills demanded by the labour market, according to this study, and they do not have the appetite to employ themselves soon after graduation (Fayolle *et al.*, 2006). Furthermore, studies have shown that most graduates from EE programmes are in fact seeking employment in established organisations (Støren, 2014; Jones *et al.*, 2017).

In addition to this, employers are finding it difficult to obtain appropriately employable graduates. Narrowing the gap between skills shortage experienced in the labour market and graduates feeling inadequately prepared for employment could lie in the development in particular sets of skills brought about by EE, which this study investigated. Additionally, it is clear that there is little consensus on the conceptual meaning of employability (McQuaid and Lindsay, 2005), with less agreement on what skills are

necessary to produce an employable graduate. This study goes some way in investing these theories and answering the research objectives outlined below.

### **6.3 Thesis Objectives**

Firstly, it is necessary to examine the research objective and discuss the levels to which the findings from chapter five answer the following objectives.

1. To establish which employability and entrepreneurial skills are deemed most desirable for graduates to make them employable
2. To determine if there is consensus amongst the employability skills valued by employers, educators and student
3. To examine the level to of expectation HEIs are anticipated to play in the development of graduate employability skills
4. To compare the outcomes of the Croatian study to the Irish outcomes developed in this study

To address these questions, Chapter 2 explored what entrepreneurship is, EE and the skills developed through EE and its future. This chapter formed the basis for linking the remaining thesis chapters. Chapter 3 addressed the meaning of employability and employability skills development models. The chapter examines the various key roles stakeholders play in employability and the desired employability skills. In Chapter 5, the study produced the competencies and attitudes that are important aspects for employability.

#### **6.3.1 To establish which employability and entrepreneurial skills are deemed most desirable for graduates to make them employable.**

In order to explore the type of employability skills most sought after by employers the following objective was established:

1. To establish which employability and entrepreneurial skills are deemed most desirable for graduates to make them employable.

Through the literature, many soft and hard skills were identified as being employable skills. Thirty-two skills were chosen to examine and then determine which of these were deemed to be the most important for employability from three perspectives, educators, employers and students. Furthermore, an investigation into the entrepreneurial skills in

isolation was undertaken. Skills such as; working under pressure, desire for achievement, independence, positive attitude towards change, thinking outside the box and innovativeness, opportunity recognition, taking initiative and making judgments on the basis of limited information were extracted and examined. The results satisfied the first research objective of highlighted which employability and entrepreneurial skills were deemed most desirable for graduates to make them employable. This study found the list of employability skills most important to employers in the Irish context. It also showed that educators, by in large, believed that the employability skills that employers desired were also the most important skills for employability. Students however had a different perception on what the most important employability skills were. This was also the case when the results were cross-referenced with the Croatian study. Interestingly, in the Irish context, when the nine entrepreneurial skills were extracted from the list of thirty-two skills and examined, it showed that organisations did not value the entrepreneurial skills as much as other generic soft skills. Despite what employers communicate regarding the need for more entrepreneurial graduates, other graduate competencies were placed well above any entrepreneurial skills in the skills list. The key reasons for organisations not valuing entrepreneurial skills in graduates could be for many reasons cited in the literature. The literature indicates that some of the reasons for this is that organisations may not want graduates to take risks with their business. Some organisations want conformists rather than innovators and the culture of the organisation may not be conducive for entrepreneurial graduates to innovate within. The message echoed throughout the literature by many authors indicates that being employable does not mean being employed and this is true in this finding.

### **6.3.2 To determine if there is consensus amongst the employability skills valued by employers, educators and student**

In order to explore the level of to which employability skills are transferred to students through higher education for increased employability the following objective was set;

2. To determine if there is consensus amongst the employability skills valued by employers, educators and student

Given the current appetite for more highly skilled graduates from a government and industry level, the question of whether the relationship between education and increased graduate employability skills had to be explored. Determining whether education, with

particular emphasis on EE, creates a more employable graduate was in question. This also brought up questions pertinent to the effectiveness of conveying employability skills demanded by the market to students. Generally, students have a completely different perception of what they believed to be employable skills compared with educators and employers. Great emphasis and investment is placed on employability skills in higher education. The study shows that 23% of educators participating in extra-curricular activities on campus. Despite nearly a quarter of respondents participating in such initiatives we can see from the literature that educators are pulled in various directions when it comes to fund raising, research and external events and that perhaps their effort in this respect can be easily diluted by other commitments that demand more of their time and efforts. From the findings in this study; we can also see a gap emerge between industry and education where educator's efforts in respect of play a part in extra-curricular activities to benefit students may be of little value to what employers want. 33% of educators strongly believe that by students engaging in extra-curricular it contributes greatly to their employability prospects while only 26% of employers felt the same. This leads us to believe that a greater alignment of employability skills needs to occur. Greater communication around what skills are required by industry and how to impart these skills effectively so they are realised by all three groups is vital for effectively meeting a consensus for the employability agenda.

### **6.3.3 To examine the level to of expectation HEIs are anticipated to play in the development of graduate employability skills**

In order to explore the level to which educators, employers and students believe higher education contributed to the development of their and employability and entrepreneurial skills, the following objective was established:

3. To examine the level to of expectation HEIs are anticipated to play in the development of graduate employability skills

When we examined this objective, we saw in the findings that students had the greatest expectations from higher education in terms of overall contribution to the students' own employability. Educators and employers spread the responsibility more evenly upon students themselves, second and third level educators and parents. When we examined this objective further, we could also see what the three respondent groups believed to be the greatest contributors to employability from higher education compared to which skills

each group believed were actually most important to employability. In general, what HEIs were contributing in terms of employability skills were not the employability skills that all three respondent groups believed to be most important.

#### **6.3.4 To compare the outcomes of the Croatian study to the Irish outcomes developed in this study**

In order to compare the attitudes of educators, employers and students when ranking the importance of employability skills and the level of contributions made to graduate employability skills by HEIs in two countries. The following objective was established:

4. To compare the outcomes of the Croatian study to the Irish outcomes developed in this study

When we examined this objective, we found that Ireland and Croatia shared much of the same views with educators and employers largely agreeing that certain employability skills were important over others. We also see that students in both countries do not value the same skills as educators and employers. This leads us to believe that the same problem exists in Ireland as in Croatia. This problem is that necessary employability skills are not being communicated effectively to students by either industry or education. An effective way of transposing these skills to students needs further attention. We also see some large variances when skills were ranked among respondent groups in both countries. An example of a variance is the Croatian data shows us that educators, employers and students feel that foreign language skills are a very important employability skill and HEIs contributed greatly however from an Irish context this ranked low on both accounts. The reason for this difference could be explained due to the cultural and economic differences between the two countries.

### **6.4 Implications of the Research Findings**

The study contributes valuable knowledge regarding the skills most desired for employability and the HEIs contribution to these skills. The results of this study can contribute to policy makers at government and higher institution level and the business community in general.

#### **6.4.1 Economic Implications**

Ireland has benefitted hugely in terms of attracting foreign direct investment, sustaining this competitive advantage includes continued supports from government. One of the governmental supports required is to continue to support HEIs in producing a highly

educated workforce equipped with the competences required to fulfil corporate roles. Support for developing individuals towards entrepreneurship is also imperative for good levels of economic activity. The findings show that student's appetite for entrepreneurship is low as well as their levels of confidence when it comes to the skills they need for employment. Better development of employability skills, as echoed by employers in this survey, could lead to better economic outcomes.

#### **6.4.2 Higher Education Implications**

We have seen in recent years, in particular from the Cassells Report (2016), that funding in higher education from government has declined and has potentially led to a drop in Ireland's university rankings as well as the perceived quality of graduates. This coupled with a skills shortage addressed by a notably unsatisfied labour market could have negative implications for Ireland as an innovation driven economy. This is an important economic issue for government in addressing competitive advantage. We can see from the findings that confidence levels are low when it comes to graduates feeling adequately prepared for the world of work. If students do not feel adequately equipped with skills as an employee there is less chance that they feel empowered as entrepreneurs and employees. Seeing as Ireland economy is comprised of 99.8% of SMEs this could have implications on the levels of confidence in graduates and skills shortages are not addressed

#### **6.4.3 Employment**

The results of this study may assist in the career development and career counselling of students from a human resource and psychological point of view thus assisting students in the identification of employability developmental areas. Furthermore, from the findings, we see student's perceptions of desired employability skills does not mirror that of industry. Better identification of the key areas of employability is necessary in translating graduate skills to employers through their CV and interviews to better secure employment opportunities.

#### **6.4.4 Curriculum Implications**

Educators may find the data useful when aligning curriculum objectives with industry demands. By identifying the skills that students believe employers desire, educators can dispel any misconceptions when it comes to anticipated employability skills between students and employers. Lastly, students may use the information contained in this study to better plan their career paths by choosing studies that best represent their strengths, areas of interest and goals.

## 6.5 Overall Findings

In conclusion, students, HEI teachers and employers adopt different perspectives on the knowledge, skills and attributes important for employment and value the contribution of HE to the development of these competencies differently. This has implications for improving the curriculum, planning courses and managing graduates' careers. This research also reinforces the concept that enterprising skills, behaviours and attributes associated with the entrepreneurial mind-set should be considered among employability skills, entrepreneurial skills such as, problem solving, enthusiasm and motivation, desire for achievement, competitiveness, innovativeness and positive attitude towards change will help graduates find and retain a job and move between jobs. Findings conclude that educators and employers to a largely agreeable extent value the same employability skills. Knowledge transfer from a higher education perspective through lectures mirror that of what employer's want in graduates however these skills are lost somehow through their transfer to student. In particular, senior student's views on what employers what did not align with what employers and educators deemed important employability skills. Even though lecturer's understandings were aligned with industry skills demands, this was not being effectively conveyed to students through education, as was apparent through student's responses. This disparity highlights why employers cannot find graduates with the appropriate skills. Therefore, HEI, teachers and students must be aware of what employers expect, and tailor the courses and choose methods of teaching based on that. Another interesting finding, despite government reports and industry anecdotes to the contrary, the findings show that entrepreneurial competencies were not as highly valued as expected in graduates by employers. When employers were asked to rank the importance of skills, entrepreneurial skills were examined in isolation post analysis. It showed that in general, these entrepreneurial skills ranked low, appearing towards the middle and end of the skills list when analysed in this way.

## 6.6 Limitations to this Research

Although the research has reached its objectives, there were some notable limitations. The findings of this study are limited to the context of graduating students from Cork Institute of Technology (CIT) and limited to lecturers within the institute. Therefore, larger groups of educators and students from various institutions would lead to more of a general view. The questionnaire was limited to students who took part in EE. For some students their participation in EE may have influenced their responses on the topic. The



sample of employers was a small sample, taken nationally however a larger sample would be more representative of the population.

Given that the study was of an exploratory nature, the findings do not allow explicit conclusions to be drawn, and the findings cannot be generalised to the greater population. In order to do so, the study would need to be conducted on a more diverse sample from across Ireland in order to make it more representative. Selecting a larger, more diverse sample may also counter any potential bias that may result from a self-administered questionnaire.

Anonymity regarding the age of the respondents was upheld as well as the sector within the employers worked and hired into. Lectures anonymity was upheld in respect to their area of expertise. This resulted in some limitations when analysing the results but could lead to some interesting findings in further analysis.

### **6.7 Areas of Future Research**

Recommendations for future research relate mainly to the selection of a larger sample that cuts across all faculties and includes students from a number of HEIs in Ireland. This will provide better insights into the employability and the impact EE has on employability. This will further allow for the generalisation of results to the greater population.

Interesting findings were revealed in the preliminary analysis of male and female perceptions and would require further analysis. Graduate employability and the perceptions of male and females in areas such as, 1) readiness for employment, 2) attitudes towards skills, 3) entrepreneurial appetite and 4) priorities post-graduation showed some variances worthy of further investigation.

### **6.8 Conclusion**

Although some studies have linked EE with more instances of new venture creation, there has been a lack of literature linking EE and employability in organisations (Pittaway and Cope, 2007). This thesis goes some way to address this gap in the literature. The study identifies the entrepreneurial skills values most by employers and investigating the employability skills view most desirable by senior students who took part in EE thus linking the two.

This thesis confirms the views on the employability of graduates but also brings to light new evidence on the requirements of companies in Ireland, in particular their views on entrepreneurial skills in an organisational context. This research also reinforces the notion that enterprising skills, behaviours and attributes, i.e. the entrepreneurial mind-set should be considered among the employability skills set, as demonstration of skills such as problem solving, enthusiasm and motivation, desire for achievement, competitiveness, innovativeness and positive attitude towards change will help graduates find and retain a job and move between jobs.

The findings of the research clearly demonstrate the need to develop a better understanding the labour market. The findings highlight the need for employers to establish links where they might better inform HEIs of their needs from graduates. Better communications between industry and HEIs could foster lists of desirable employability skills, behaviours and attributes suitable for changing market demands. The findings demonstrate that employers value traditional skills more than entrepreneurial skills within an organisational context. This finding demonstrates the need for an organisational culture that embraces and accepts entrepreneurial qualities. It also highlights the need for students to better communicate their transferable skills in a language that translates to fit the Irish organisational culture in terms of their own employability.

# Appendix

## Appendix A – Questionnaire to Employers

\* 1. On a scale from 1 (not at all important) to 7 (extremely important), please rate to what extent the following employability skills are important. By employability skills, we mean the transferable skills needed by an individual to make them 'employable'. The more you feel the skill is appropriate to contributing towards graduate employability, the higher you would rate it. The less you feel the skill is appropriate to contributing towards graduate employability, the lower you would rate it.

	1-Not at all important	2	3	4-Neutral	5	6	7-Extremely Important
Problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intelligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desire for achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Willingness to work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subject knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usage of social networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Achievement in sport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiasm and motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity recognition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establishing & maintaining interpersonal contact	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work ethics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
IT usage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Application of knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Persuasion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teamwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making judgments on the basis of limited information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thinking outside the box and innovativeness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work under pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong orientation towards achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aggression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive attitude towards change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foreign languages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of humour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practical experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Others (please specify)

\* 2. On a scale from 1 (not at all contribute) to 7 (absolutely contribute), please indicate to what extent Higher Education Institutions contribute to the development of employability skills. By employability skills, we mean the transferable skills needed by an individual to make them 'employable'. The more you feel Higher Education Institutes contribute towards the development of these skills, the higher you would rate it. The less you feel Higher Education Institutes contribute towards the development of these skills, the lower you would rate it.

	1-Not at all Contribute	2	3	4-Neutral	5	6	7-Absolutely Contribute
Practical experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Persuasion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Willingness to work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subject knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive attitude towards change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intelligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of humour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiasm and motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work ethics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong orientation towards achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aggression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teamwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establishing & maintaining interpersonal contact	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity recognition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
IT usage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making judgments on the basis of limited information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foreign languages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thinking outside the box and innovativeness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work under pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usage of social networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Application of knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desire for achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Achievement in sport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Others (please specify)

\* 3. What is your gender?

- Female  
 Male

\* 4. What is your role?

\* 5. How many years and months have you held this role?

\* 6. On a scale from 1 (Not at all) to 7 (Large Extent), please rate to what extent the following activities contribute to employability? The more you feel they contribute, the higher you would rate it. The less you feel they contribute, the lower you would rate it.

	1-Does not contribute	2	3	4-Neutral	5	6	7-Contributes Greatly
Taking part in a Tech based competition to win "Best App Idea"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking part in education covering all aspects of starting and running your own business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A student summer internship developing student business ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking part in social initiatives that benefit communities eg. volunteering	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Having a designated student role promoting entrepreneurship on campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Partaking in college competitions showcasing innovative business ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Competing in a Dragons Den style competition showcasing entrepreneurial ideas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Being part of a society that encourages entrepreneurship and innovation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Others or none (please specify)

7. If none of these initiatives contribute to employability, why do you think this is the case?

\* 8. To what extent do you value entrepreneurship education? By entrepreneurship education we mean the education that provides students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings.

Not at all							Large Extent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\* 9. To what extent do you feel Higher Education Institutes (HEI's) develop skills to make student's employable?

Not at all Large Extent

\* 10. To what extent do you feel HEI's are responsible in developing student's employability skills?

Not at all Large Extent

\* 11. To what extent do you feel that HEI's could help to develop employability skills further?

Not at all Large extent

\* 12. To what extent do you feel students are confidently prepared entering the workforce?

Not at all Large Extent

\* 13. By engaging in extra-curricular activities, to what extent do you feel this positively contributes to making a graduate more employable?

Not at all Large Extent

\* 14. Whose primary responsibility is it to make students more employable?

- Parents
- Students
- Higher Education Institutes (HEI's)
- Employers
- Secondary Level Education

Other (please specify)

\* 15. On a scale of 1-4, in your opinion, please rank students main priority upon graduating?

<input type="checkbox"/>	<input type="text"/>	Travel
<input type="checkbox"/>	<input type="text"/>	Take part in further study
<input type="checkbox"/>	<input type="text"/>	Seek/gain employment
<input type="checkbox"/>	<input type="text"/>	Start their own business

## Appendix B – Questionnaire to Educators

\* 1. On a scale from 1 (not at all important) to 7 (extremely important), please rate to what extent the following employability skills are important. By employability skills, we mean the transferable skills needed by an individual to make them 'employable'. The more you feel the skill is appropriate in contributing to employability, the higher you would rate it. The less you feel the skill is appropriate in contributing to employability, the lower you would rate it.

	1-Not at all important	2	3	4-Neutral	5	6	7-Extremely important
Independence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subject knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Persuasion skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity recognition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intelligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work ethic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of humour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making judgments on the basis of limited information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Application of Knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiasm and Motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive attitude towards change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Willingness to work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thinking out of the box and innovativeness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establishing & maintaining interpersonal relations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desire for Achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work under pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
IT usage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical Thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practical experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aggression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foreign languages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usage of social networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Achievement in Sport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teamwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Others (please specify)

\* 2. On a scale from 1 (not at all contribute) to 7 (absolutely contribute), please indicate to what extent Higher Education Institutions contribute to the development of employability skills. By employability skills, we mean the transferable skills needed by an individual to make them 'employable'. The more you feel they develop these skills, the higher you would rate it. The less you feel they develop these skills, the lower you would rate it.

	1-Not at all Contribute	2	3	4-Neutral	5	6	7-Absolutely Contribute
Diligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical Thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intelligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teamwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Willingness to work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usage of social networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work ethics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Application of Knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of humour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foreign languages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practical experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work under pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desire for Achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aggression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establishing & maintaining interpersonal relations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
IT usage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making judgments on the basis of limited information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Persuasion skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Achievement in Sport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive attitude towards change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiasm and Motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity recognition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thinking out of the box and innovativeness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Others (please specify)



\* 3. What is your gender?

- Female  
 Male

\* 4. What is your role?

\* 5. How many years and months have you held this role?

\* 6. On a scale from 1 (Not at all) to 7 (Large Extent), please rate the extent to which you have engaged with the following initiatives. The more you feel you've engaged, the higher you would rate it. The less you feel you've engaged, the lower you would rate it.

	1-Not at all engaged	2	3	4-Neutral	5	6	7-Large Extent
Business Model Canvas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Innovation week	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CIT Dragons Den	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Student Inc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delivering Entrepreneurship Modules	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prize for Innovation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enactus CIT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Enterprise Internship	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The Enterprise Society	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The AI/Innovate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
None	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Others (please specify)

7. If you have not engaged in the initiatives listed above, please indicate the main reason for this.

\* 8. To what extent do you value entrepreneurship education? By entrepreneurship education we mean the education that provides students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings.

Not at all        Large Extent

\* 9. To what extent do you feel Higher Education Institutes (HEI's) develop skills to make students employable?

Not at all        Large Extent

\* 10. To what extent do you feel HEI's are responsible in developing students employability skills?

Not at all Large Extent

\* 11. To what extent do you feel that HEI's could help to develop employability skills further?

Not at all Large extent

\* 12. To what extent do you feel students are confidently prepared entering the workforce?

Not at all Large Extent

\* 13. By engaging in extra circular activities, to what extent do you feel this positively contributes to making graduates more employable?

Not at all Large Extent

\* 14. Do you take part in promoting extra curricular activities?

- Yes  
 No

\* 15. Whose primary responsibility is it to make students more employable?

- Parents  
 Students  
 Higher Education Institutions (HEIs)  
 Employers  
 Secondary Level Education  
 All of the above

Other (please specify)

\* 16. On a scale of 1-4, (1 is the least priority and 4 being the highest priority), in your opinion, please rank graduates main priority once graduating?

<input type="text"/>	<input type="text"/>	Travel
<input type="text"/>	<input type="text"/>	Take Part in Further Study
<input type="text"/>	<input type="text"/>	Seek/Gain Employment
<input type="text"/>	<input type="text"/>	Start Their Own Business

## Appendix C – Questionnaire to Students

\* 1. On a scale from 1 (not at all important) to 7 (extremely important), please rate **to what extent the following employability skills are important**. By employability skills, we mean the transferable skills needed by an individual to make them 'employable'. The more you feel the skill is appropriate in contributing to employability, the higher you would rate it. The less you feel the skill is appropriate in contributing to employability, the lower you would rate it.

	1-Not at all Important	2	3	4-Neutral	5	6	7- Extremely Important
Achievement in Sport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aggression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Application of Knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical Thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desire for Achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dilligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiasm and Motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establishing & maintaining interpersonal contact	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foreign languages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intelligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
IT usage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making judgments on basis of limited information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity recognition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Persuasion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive attitude towards change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practical experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

	1-Not at all Contribute	2	3	4-Neutral	5	6	7-Absolutely Contribute
Establishing & maintaining interpersonal contact	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Foreign languages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Intelligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
IT usage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Making judgments on basis of limited information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiation skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity recognition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Persuasion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Positive attitude towards change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practical experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem solving	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Public speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of humour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong orientation to achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subject knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teamwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thinking out of the box and innovativeness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usage of social networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Willingness to work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work ethics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work under pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Others (please specify)

	1-Not at all Important	2	3	4-Neutral	5	6	7-Extremely Important
Public speaking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Self-confidence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sense of humour	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strong orientation to achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Subject knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Taking initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teamwork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Thinking out of the box and innovativeness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Usage of social networks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Willingness to work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work ethics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work under pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Written communication	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Others (please specify)

- \* 2. On a scale from 1 (not at all contribute) to 7 (absolutely contribute), please indicate **to what extent Higher Education Institutions contribute to the development of employability skills**. By employability skills, we mean the transferable skills needed by an individual to make them 'employable'. The more you feel they develop these skills, the higher you would rate it. The less you feel they develop these skills, the lower you would rate it.

	1-Not at all Contribute	2	3	4-Neutral	5	6	7-Absolutely Contribute
Achievement in Sport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Aggression	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Application of Knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical Thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Desire for Achievement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Diligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enthusiasm and Motivation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

\* 3. What is your gender?

- Female  
 Male

\* 4. What is your course of study?

\* 5. In what month and year do you expect to graduate?

\* 6. On a scale from 1 (Not at all) to 7 (Large Extent), please rate to what extent the following initiatives have you engaged in during your time in higher education? The more you feel you've engaged, the higher you would rate it. The less you feel you've engaged, the lower you would rate it.

	1-Not at all Enaged	2	3	4-Neutral	5	6	7-Engaged to a Large Extent
Student Inc.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enterprise Internship	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prize for Innovation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The APPrentice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
CIT Dragons Den	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Business Model Canvass	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enactus CIT	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Enterprise Society	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Receive Entrepreneurship Education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
None	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Others (please specify)

---

7. If you have not engaged in the initiatives listed above, please indicate the main reason for this.

\* 8. To what extent do you value entrepreneurship education? By entrepreneurship education we mean the education that provides students with the knowledge, skills and motivation to encourage entrepreneurial success in a variety of settings.

Not at all Large Extent



\* 9. To what extent do you feel Higher Education Institutes (HEI's) develop skills to make students employable?

Not at all Large Extent



\* 10. To what extent do you feel HEI's are responsible in developing students employability skills?

Not at all Large Extent



\* 11. To what extent do you feel that HEI's could help to develop employability skills further?

Not at all Large extent



\* 12. To what extent do you feel confidently prepared for entering the workforce?

Not at all Large Extent



\* 13. By engaging in extra-curricular activities, to what extent do you feel this positively contributes to making you more employable?

Not at all Large Extent



\* 14. Do you take part in extra curricular activities as part of your studies?

- Yes  
 No

## Appendix D – Employers Email

Dear Employer,

My name is Rebecca Robinson and I am completing a master of business by research in the Hincks Centre for Entrepreneurship Excellence, Cork Institute of Technology under the supervision of Dr Breda Kenny and Dr Aisling Conway. The research explores the learning outcomes of entrepreneurship education at Higher education institutions from an employability perspective. Specifically, this research will focus on three primary objectives:

1. To determine the relationship between entrepreneurship education at Higher education institutions and graduate employability.
2. To identify the nature of general and entrepreneurial skills sought by employers.
3. To compare the perceptions of employers, educators and students about which entrepreneurial skills developed in Higher education impact on graduate employment.

A survey of students, lecturers and employers will be completed and I am requesting your input from an employer's perspective.

I would be most grateful if you could take just 10 minutes to complete the questionnaire at the following link:

<https://www.surveymonkey.com/r/F8G2J8Y>

I can assure you that the information provided will be dealt with in strictest confidence and will be used for research purposes only.

Many thanks for all your help and valuable input in advance and if you have any feedback or questions please feel free to contact me.

Kind regards,

Rebecca Robinson  
[rebecca.robinson@mycit.ie](mailto:rebecca.robinson@mycit.ie)  
0879574692

## Appendix E – Educators Email

Dear CIT Lecturer,

My name is Rebecca Robinson and I am completing a master of business by research in the Hincks Centre for Entrepreneurship Excellence under the supervision of Dr Breda Kenny. The research explores the learning outcomes of entrepreneurship education at Higher education institutions from an employability perspective. Specifically, this research will focus on three primary objectives:

1. To determine the relationship between entrepreneurship education at Higher education institutions and graduate employability.
2. To identify the nature of general and entrepreneurial skills sought by employers.
3. To compare the perceptions of employers, educators and students about which entrepreneurial skills developed in Higher education impact on graduate employment.

A survey of students, lecturers and employers will be completed and I am requesting your input from a lecturer perspective here in CIT.

I would be most grateful if you could take just 10 minutes to complete the questionnaire at the following link:

<https://www.surveymonkey.com/r/LJQM9SV>

I can assure you that the information provided will be dealt with in strictest confidence and will be used for research purposes only.

Many thanks for all your help and valuable input in advance and if you have any feedback or questions please feel free to contact me. [rebecca.robinson@mycit.ie](mailto:rebecca.robinson@mycit.ie) or 0879574692

Kind regards,

Rebecca Robinson



## Appendix F – Email to Educators Access to Student Responses

Hi,

I hope you are keeping well.

As part of my research Masters I need access to students who are in their final year of study either Degree or Masters. I would very much appreciate access to your senior students for approx 10 minutes at the start of class to complete the paper survey. The survey takes about 10 minutes to complete. Altogether I need to collect 230 student surveys and am emailing a few lecturers to help meet this number.

The research explores the learning outcomes of entrepreneurship education at Higher education institutions from a student perspective. Specifically, this research will focus on three primary objectives:

1. To determine the relationship between entrepreneurship education at Higher education institutions and graduate employability.
2. To identify the nature of general and entrepreneurial skills sought by employers.
3. To compare the perceptions of employers, educators and students about which entrepreneurial skills developed in Higher education impact on graduate employment.

Many thanks,

Rebecca Robinson  
Hincks Centre for Entrepreneurship Excellence  
Cork Institute of Technology

## Appendix G – Email Requesting Employers Database

Treasa,

My name is Rebecca Robinson and I am completing a master of business by research in the Hincks Centre for Entrepreneurship Excellence under the supervision of Dr Breda Kenny. The research explores the learning outcomes of entrepreneurship education at Higher education institutions from an employability perspective. Specifically, this research will focus on three primary objectives:

1. To determine the relationship between entrepreneurship education at Higher education institutions and graduate employability.
2. To identify the nature of general and entrepreneurial skills sought by employers.
3. To compare the perceptions of employers, educators and students about which entrepreneurial skills developed in Higher education impact on graduate employment.

I was hoping to get a list of employers who would be willing to take part in completing the survey that takes less than 10 minutes to complete. These results will be published and discussed at the 3e Conference that will be held in CIT in May and would be great if we heard the voice of the local and national employers through this survey.

When I attended the graduate fair in CIT earlier this semester I spoke to many employers and they showed great interest in taking part in the survey and reviewing the results.

I was wondering if you are able to provide a list of employers from your database who'd be interested in taking part in this valuable research and data collection.

Many thanks,

Rebecca Robinson

## **Glossary of Terms**

AGR - Association of Graduate Recruiters

AHECS - Association of Higher Education Career Services

CIT - Cork Institute of Technology

CSO - Central Statistics Office

CV - Curriculum Vitae

EE - Entrepreneurship Education

EHEA - European Higher Education Area

EU - European Union

FDI - Foreign Direct Investment

GCI - Global Competitiveness Index

GEM - Global Entrepreneurship Monitor

GPA – Grade Point Average

GUESS - Global University Entrepreneurial Sprits Students' Survey

HE - Higher Education

HEIs - Higher Educational Institutions

OECD - Organisation for Economic Co-operation and Development

QAA - Quality Assurance Agency

RENT - Research in Entrepreneurship

SMEs - Small to Medium Enterprises

STEM - Science Technology Engineering and Maths

TEA - Total Early-Stage Entrepreneurial Activity

## Bibliography

Aghion, P. (2012) *Growth Policy and The State*. Washington.

AGR (2016) *The AGR 2016 Annual Survey*. London.

amárach research (2014) *Foreign direct investment in Ireland, Grant Thornton*.

Amoud, L. El *et al.* (2010) *Engaging with Employers in Economic Downturn*. Available at: <http://arrow.dit.ie/repcon> (Accessed: 12 September 2018).

Andel, S. Van, Devos, D. and President, C. (2014) *Amway Global Entrepreneurship Report 2014*. Nuremberg.

Anderson, A. . and Jack, S. (1999) ‘Teaching the entrepreneurial art’, *International Dimensions of Teaching Entrepreneurship*, pp. 84–105. Available at: <http://eprints.qut.edu.au/29653/>.

Antonic, B. (2007) ‘Intrapreneurship: A comparative structural equation modeling study’, *Industrial Management & Data Systems*, 107(3), pp. 309–325.

Antonic, B. and Hisrich, R. D. (2003) ‘Clarifying the intrapreneurship concept’, *Journal of Small Business and Enterprise Development*, 10(1), pp. 7–24.

Artess, J., Hooley, T. and Mellors-bourne, R. (2016) *Employability: A review of the literature 2012 to 2016. A report for the Higher Education Academy, Higher Education Academy*. Available at: <https://www.heacademy.ac.uk/knowledge-hub/employability-review-literature-2012-2016>.

Audibert, G. and Jones, M. (2002) ‘The softer side’, *Advisor Today*. Proquest ABI/INFORM, 97(2), p. 72.

Bacigalupo, M. *et al.* (2016) *EntreComp: The Entrepreneurship Competence Framework*. Luxembourg:

Balnaves, M. and Caputi, P. (2001) *Introduction to quantitative research methods : an investigative approach*. SAGE.

Barr, N. A. and Crawford, I. (1998) *The Dearing Report and the government’s response : a critique*. Available at: <http://eprints.lse.ac.uk> (Accessed: 4 September 2018).

- Barry, F. (2006) *Foreign direct investment and institutional coevolution in Ireland*. Dublin.
- Barry, F. (2007) 'Third-Level Education, Foreign Direct Investment And Economic Boom in Ireland', *International Journal of Technology Management*, 38(3), pp. 1–22.
- Bell, R. (2016) 'Unpacking the link between entrepreneurialism and employability: An assessment of the relationship between entrepreneurial attitudes and likelihood of graduate employment in a professional field', *Education and Training*.
- Bennett, D. *et al.* (2015) *Navigating uncertainty and complexity: Higher education and the dilemma of employability*, Higher Education Research and Development Society of Australasia.
- Bennis, W. G. and O'Toole, J. (2005) 'How business schools lost their way', *Harvard Business Review*, 83(5), pp. 96–104. Available at: <https://europepmc.org/abstract/med/15929407>.
- Bowden, J. *et al.* (2000) 'Generic capabilities of ATN university graduates', *Canberra: Australian Government Department of Education, Training and Youth Affairs*.
- Brancato, G. *et al.* (2006) 'Handbook of Recommended Practices for Questionnaire Development and Testing in European Statistical Systems European Commission Grant Agreement', *European Commission Grant Agreement*, p. 162. Available at: [http://epp.eurostat.ec.europa.eu/portal/page/portal/research\\_methodology/documents/Handbook\\_questionnaire\\_development\\_2006.pdf](http://epp.eurostat.ec.europa.eu/portal/page/portal/research_methodology/documents/Handbook_questionnaire_development_2006.pdf).
- Brennan, J. *et al.* (2001) *The employment of UK graduates: comparisons with Europe and Japan*. Available at: [http://webarchive.nationalarchives.gov.uk/20100303165016/http://www.hefce.ac.uk/pubs/hefce/2001/01\\_38.htm](http://webarchive.nationalarchives.gov.uk/20100303165016/http://www.hefce.ac.uk/pubs/hefce/2001/01_38.htm) (Accessed: 4 September 2018).
- Brewer, J. and Hunter, A. (1989) *Multimethod research: a synthesis of styles*. Sage Publications, Inc.
- Bridge, S. (2017) 'Is " entrepreneurship " the problem in entrepreneurship education?', *Education + Training*, 59(7/8), pp. 740–750.

Bridge, S., Hegarty, C. and Porter, S. (2010) 'Rediscovering enterprise: developing appropriate university entrepreneurship education', *Education + Training*, 52(8/9), pp. 722–734.

Bridgstock, R. (2009) 'The graduate attributes we've overlooked: enhancing graduate employability through career management skills', *Higher Education Research & Development*, 28(1), pp. 31–44. Available at: <http://www.tandfonline.com/action/journalInformation?journalCode=cher20> (Accessed: 31 August 2018).

Brown, P., Hesketh, A. and Williams, S. (2002) *Employability in a Knowledge-Driven Economy*. Available at: <http://orca.cf.ac.uk/78067/1/wrkpaper26.pdf> (Accessed: 31 August 2018).

Brown, P., Hesketh, A. and Williams, S. (2004) *The mismanagement of talent: Employability and jobs in the knowledge economy*. Oxford University Press on Demand. Available at: <https://books.google.ie/books?hl=en&lr=&id=twrJS3VeR3sC&oi=fnd&pg=PR7&dq=In+the+times+of+rising+unemployment+among+highly+educated,+questions+have+been+raised+about+the+ability+of+graduates+to+meet+the+needs+of+the+employers+and+the+labour+market.+Employe>.

Burke Johnson, R. and Onwuegbuzie, A. J. (2004) 'Mixed Methods Research: A Research Paradigm Whose Time Has Come', *Educational Researcher*. Popper, 33(7), pp. 14–26. Available at: <http://bayanbox.ir/view/2175758303768059675/10.1.1.465.5319.pdf> (Accessed: 25 September 2018).

Carey, C. and Matlay, H. (2011) 'Emergent issues in enterprise education: The educator's perspective', *Industry and Higher Education*. SAGE Publications Sage UK: London, England, 25(6), pp. 441–450.

Cassells, P. (2016) *Investing in National Ambition: A Strategy for Funding Higher Education*.

Casson, M. (1982) *The entrepreneur: an economic theory*. Barnes & Noble Books. Available at: <https://books.google.ie/books?hl=en&lr=&id=vo->  
175

0aXjiLcoC&oi=fnd&pg=PR10&dq=an+entrepreneur+is+a+coordinator&ots=30KF48FHRO&sig=\_E5U8CtmrzjWMumiKxtM7yXT6m8&redir\_esc=y#v=onepage&q&f=false (Accessed: 27 August 2018).

Central Statistics Office (2014) *Higher Education Outcomes*. Available at: <http://www.cso.ie/en/aboutus/copyrightpolicy/> (Accessed: 11 October 2018).

Charney, A. and Libecap, G. D. (2000) *The Impact of Entrepreneurship Education: An Evaluation of the Berger Entrepreneurship Program at the University of Arizona, 1985-1999*, *Ssrn*.

Cheung, CK: Chan, R. (2011) 'The introduction of entrepreneurship education to school leavers in a vocational institute', *Journal of scientific Research in Education*, 4(1), pp. 8–16.

Clarke, M. (2008) 'Understanding and managing employability in changing career contexts', *Journal of European Industrial Training Employee Relations*, 32(2), pp. 258–284. Available at: <https://doi.org/10.1108/03090590810871379//doi.org/10.1108/00400910710754435%22%3Ehttps://>.

Clarke, M. and Patrickson, M. (2008) 'The new covenant of employability', *Employee Relations*, 30(2), pp. 121–141. Available at: [www.emeraldinsight.com/0142-5455.htm](http://www.emeraldinsight.com/0142-5455.htm) (Accessed: 4 September 2018).

Coduras Martínez, A. *et al.* (2008) *Global Entrepreneurship Monitor Special Report: A Global Perspective on Entrepreneurship Education and Training*.

Cole, A. H. (1969) 'Definition of entrepreneurship', in *Karl A. Bostrom Seminar in the Study of Enterprise*. Milwaukee: Center for Venture Management, pp. 10–22.

Collis, J. and Hussey, R. (2009) 'Business Research: Palgrave Macmillan'.

Collis, J. and Hussey, R. (2013) *Business research: A practical guide for undergraduate and postgraduate students*. Macmillan International Higher Education.

Cotton, K. (1993) *Developing Employability Skills*. Available at: <https://educationnorthwest.org/sites/default/files/DevelopingEmployabilitySkills.pdf>

(Accessed: 12 September 2018).

Covin, J. G. and Slevin, D. P. (1991) 'A conceptual Model of Entrepreneurship as Firm Behaviour', *ET&P*.

Cox, C. and Jennings, R. (1995) 'The foundations of success', *Leadership & Organization Development Journal*, 16(7), pp. 4–9. Available at: <https://www.emeraldinsight.com/doi/10.1108/01437739510100892>.

Cox, S. and King, D. (2006) 'Skill sets: an approach to embed employability in course design Article information', *Education + Training*, 48(4), pp. 262–274. Available at: <https://doi.org/10.1108/00400910610671933> (Accessed: 12 September 2018).

Creswell, J. W. (1994) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. 3rd edn. Sage Publications Sage CA: Thousand Oaks, CA. Available at: <http://www.ceil-conicet.gov.ar/wp-content/uploads/2015/10/Creswell-Cap-10.pdf> (Accessed: 4 October 2018).

CSO (2016) *What are GDP and GNP - CSO - Central Statistics Office*. Available at: <https://www.cso.ie/en/interactivezone/statisticsexplained/nationalaccounts/whataregdpandgnp/> (Accessed: 11 May 2018).

CSO - Central Statistics Office (2014) *Small and Medium Enterprises, Small and Medium Enterprises*. Available at: <https://www.cso.ie/en/releasesandpublications/ep/p-bii/bii2014/sme/> (Accessed: 7 August 2018).

Dacre, L. and Sewell, P. (2007) 'The key to employability: developing a practical model of graduate employability', *Education + Training*, 49(4), pp. 277–289. Available at: <https://doi.org/10.1108/00400910710754435>.

Dacre Pool, L., Qualter, P. and Sewell, P. J. (2014) 'Exploring the factor structure of the CareerEDGE employability development profile', *Education + Training*, 56(4), pp. 303–313. Available at: <http://www.emeraldinsight.com/doi/10.1108/ET-01-2013-0009>.

Davidsson, P., Delmar, F. and Wiklund, J. (2006) 'Entrepreneurship and the Growth of Firms', *Entrepreneurship and the Growth of firms*, pp. 21–38.

Dawson, C. (2009) *Introduction to research methods: A practical guide for anyone*

*undertaking a research project*. Hachette UK.

Denscombe, M. (2003) 'The good research guide for small-scale social research projects'. Open University Press.

Department of Education (2015) *Ireland's National Skills Strategy 2025 - Ireland's Future*, Department of Education and Skills.

Department of Education and Skills (2011) *National Strategy for Higher Education to 2030*. Dublin. Available at: [http://www.heai.ie/sites/default/files/national\\_strategy\\_for\\_higher\\_education\\_2030.pdf](http://www.heai.ie/sites/default/files/national_strategy_for_higher_education_2030.pdf).

Department of Foreign Affairs and Trade - Ireland (2003) *Ireland-Croatia Relations*. Available at: <https://www.dfa.ie/irish-embassy/croatia/our-role/irish-relations/> (Accessed: 11 May 2018).

Department of the Taoiseach - Ireland (2008) *Building Ireland's Smart Economy: A Framework for Sustainable Economic Renewal*. Dublin.

Departments, Enterprise, Trade and Investment (DETI), E. (DE) and E. and L. (DEL) (2006) *Entrepreneurship and education action plan*. Available at: [http://www.delni.gov.uk/deti\\_action\\_plan.pdf](http://www.delni.gov.uk/deti_action_plan.pdf).

DeTienne, D. R. and Chandler, G. N. (2004) 'Opportunity Identification and Its Role in the Entrepreneurial Classroom : A Pedagogical', *Academy of Management Learning & Education*, 3(3), pp. 242–257.

DeVaus, D. (2005) *Surveys in Social Research*. Routledge. Available at: <http://www.jstor.org/stable/2071069?origin=crossref>.

DeVellis, R. F. (2003) *Scale development : theory and applications*. Sage Publications. Available at: [https://books.google.ie/books?id=BYGxL6xLokUC&pg=PA77&lpg=PA77&dq=An+even+number+of+responses...forces+the+respondent+to+make+at+least+a+weak+commitment+in+the+direction+of+one+or+other+extreme+DeVellis+\(2003\)&source=bl&ots=b7fVb5bGhV&sig=AcgBIPGM4o9296CxxbRr3rwPs58&hl=en&sa=X&ved=2ahUKEwiWj-yXttbdAhVrLcAKHT5cBcsQ6AEwAHoECAAQAQ#v=onepage&q=An+even+number+of+responses...forces+the+respondent+to+make+at+least+a+weak+commitment+in+the](https://books.google.ie/books?id=BYGxL6xLokUC&pg=PA77&lpg=PA77&dq=An+even+number+of+responses...forces+the+respondent+to+make+at+least+a+weak+commitment+in+the+direction+of+one+or+other+extreme+DeVellis+(2003)&source=bl&ots=b7fVb5bGhV&sig=AcgBIPGM4o9296CxxbRr3rwPs58&hl=en&sa=X&ved=2ahUKEwiWj-yXttbdAhVrLcAKHT5cBcsQ6AEwAHoECAAQAQ#v=onepage&q=An+even+number+of+responses...forces+the+respondent+to+make+at+least+a+weak+commitment+in+the)



direction of one or other extreme DeVellis (2003)&f=false (Accessed: 25 September 2018).

Drucker, P. F. (1985) *Innovation and Entrepreneurship*. London and New York: Routledge Classics.

Duval-Couetil, N. (2013) 'Assessing the impact of entrepreneurship education programs: Challenges and approaches', *Journal of Small Business Management*, 51(3), pp. 394–409.

Dwerryhouse, R. (2001) 'Real work in the 16-19 curriculum: AVCE business and Young Enterprise', *Education + Training*, 43(3), pp. 153–162.

Easterby-Smith, M., Thorpe, R. and Lowe, A. (1991) *Management Research: An Introduction, Management research: An introduction*. London: Sage Publications, Inc.

Enterprise Ireland (2016) *GUESS National Report: Entrepreneurial and Career Intentions and Behaviour of Students attending Irish Universities*. DCU.

European Commission (2008) *Entrepreneurship in higher education, especially within non-business studies, Final Report of the Expert Group*. Available at: [http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Entrepreneurship+in+higher+education+,+especially+within+non-business+studies#0%5Cnhttp://europa.eu.int/comm/enterprise/entrepreneurship/support\\_measures/index.htm](http://scholar.google.com/scholar?hl=en&btnG=Search&q=intitle:Entrepreneurship+in+higher+education+,+especially+within+non-business+studies#0%5Cnhttp://europa.eu.int/comm/enterprise/entrepreneurship/support_measures/index.htm).

European Commission (2016) *A new skills agenda for Europe*. Available at: <http://www.ipex.eu/IPEXL-WEB/dossier/document/COM20160381.do>.

De Faoite, D. *et al.* (2003) 'Education and training for entrepreneurs: a consideration of initiatives in Ireland and The Netherlands', *Education and Training*, 45(8/9), pp. 430–438.

Fayolle, A., Gailly, B. and Lassas-Clerc, N. (2006) 'Effect and Counter-effect of Entrepreneurship Education and Social Context on Student's Intentions', *ESTUDIOS DE ECONOMÍA APLICADA* *STUDIOS DE ECONOMÍA APLICADA*, 24(2), pp. 509–523.

Fiet, J. O. (2001) 'The theoretical side of teaching entrepreneurship', *Journal of Business*

*Venturing*, 16(1), pp. 1–24.

Fitzsimons, P. and O’Gorman, C. (2014) *The Annual Report for Ireland*.

Fitzsimons, P. and O’Gorman, C. (2017) *A Survey of Entrepreneurship in Ireland*. Available at: <https://www.enterprise-ireland.com/en/Publications/Reports-Published-Strategies/GEM-Reports/2016-Global-Entrepreneurship-Monitor-Report.pdf> (Accessed: 11 October 2018).

Flick, U. (2009a) *An Introduction to Qualitative Research*. SAGE.

Flick, U. (2009b) ‘An Introduction to Qualitative Research’, *An Introduction to Qualitative Research*, p. 122; 444.

Galloway, L. *et al.* (2005) ‘Enterprise skills for the economy’, *Education + Training*, 47(1), pp. 7–17.

Galloway, L. and Brown, W. (2002) ‘Entrepreneurship education at university: a driver in the creation of high growth firms?’, *Education+ Training*. MCB UP Ltd, 44(8/9), pp. 398–405.

Garavan, T. N. and O’Cinneide, B. (1994) ‘Entrepreneurship Education and Training Programmes’, *Journal of European Industrial Training*, 18(8), pp. 3–12. Available at: <http://www.emeraldinsight.com/doi/10.1108/03090599410068024>.

Gartner, W. B. (1989) “‘Who Is an Entrepreneur?’ Is the Wrong Question”, *Entrepreneurship theory and practice*, pp. 47–67. Available at: [https://www.researchgate.net/profile/William\\_Gartner3/publication/237360637\\_Who\\_Is\\_an\\_Entrepreneur\\_Is\\_the\\_Wrong\\_Question/links/00b4953c92c60ccbfb000000/Who-Is-an-Entrepreneur-Is-the-Wrong-Question.pdf](https://www.researchgate.net/profile/William_Gartner3/publication/237360637_Who_Is_an_Entrepreneur_Is_the_Wrong_Question/links/00b4953c92c60ccbfb000000/Who-Is-an-Entrepreneur-Is-the-Wrong-Question.pdf) (Accessed: 27 August 2018).

GEM Global Entrepreneurship Monitor (2014) *GEM Global Entrepreneurship Monitor Wiki*. Available at: <https://www.gemconsortium.org/wiki/1367> (Accessed: 11 May 2018).

GEM Global Entrepreneurship Monitor (2017) *GEM Wiki*. Available at: <https://www.gemconsortium.org/wiki/1149> (Accessed: 2 June 2018).

Gibb, A. (1999) ‘Can we build “effective” entrepreneurship through management development?’, *Journal of General Management*. SAGE Publications Sage UK: London,

England, 24(4), pp. 1–21.

Gibb, A. (2002) ‘In pursuit of a new “enterprise” and “entrepreneurship” paradigm for learning: Creative destruction, new values, new ways of doing things and new combinations of knowledge’, *International Journal of Management Reviews*, 4(3), pp. 233–269.

Gibb, A. (2008) ‘Entrepreneurship and enterprise education in schools and colleges: Insights from UK practice’, *International Journal of Entrepreneurship Education*, pp. 1–49. Available at: [www.ncge.org.uk](http://www.ncge.org.uk) (Accessed: 25 August 2018).

Gibb, A. A. (1993) ‘Enterprise Culture and Education: Understanding Enterprise Education and its Links with Small Business, Entrepreneurship and Wider Educational Goals’, *International Small Business Journal*, 11(3), pp. 11–34.

Gibb, A. A. (1996) ‘Entrepreneurship and small business management: Can we afford to neglect them in the twenty-first century business school?’, *British Journal of Management*, 7(4), pp. 309–321.

Gibb, A. and Hannon, P. (2006) ‘Towards the entrepreneurial university’, *International Journal of Entrepreneurship Education*, 4(1), pp. 73–110.

Giesen, D. *et al.* (2012) ‘Questionnaire Development’, *Statistics Netherlands*, 12(3), pp. 1–82.

Gill, J. and Johnson, P. (2010) *Research methods for managers*. Sage.

Gillham, B. (2008) *Developing a Questionnaire*. Bloomsbury Publishing. Available at: <https://books.google.ie/books?id=EpKvAwwAAQBAJ&printsec=frontcover&dq=steps+for+generating+questionnaire&hl=en&sa=X&ved=0ahUKEwilsK6rvdbdAhUEK8AKHdidDfkQ6AEINDAC#v=onepage&q=questionnaire&f=false> (Accessed: 25 September 2018).

Global Entrepreneurship Research Association (2016) *Global Entrepreneurship Monitor 2016/2017*, *Global Entrepreneurship Monitor*.

Gorman, G., Hanlon, D. and King, W. (1997) ‘Some research perspectives on entrepreneurship education, enterprise education and education for small business

management: a ten-year literature review.’, *International Small Business Journal*, 15(3), pp. 56–78. Available at: [http://usapr.net/Papers\\_Source/66.pdf](http://usapr.net/Papers_Source/66.pdf) (Accessed: 18 July 2018).

Government of Ireland (2018) *Action Plan for Education*. Available at: <https://www.education.ie/en/Publications/Corporate-Reports/Strategy-Statement/action-plan-for-education-2018.pdf> (Accessed: 20 September 2018).

Graham, D. (2017) ‘Embedding employability behaviours’, *Journal of Work-Applied Management*, 9(1), pp. 35–50. Available at: <http://www.emeraldinsight.com/doi/10.1108/JWAM-01-2017-0001>.

Gunnigle, P. and McGuire, D. (2001) ‘Why Ireland? A qualitative review of the factors influencing the location of US multinationals in Ireland with particular reference to the impact of labour issues’, *Economic and Social Review*, 32(1), pp. 43–67.

Haase, H., Franco, M. and Félix, M. (2015) ‘Organisational learning and intrapreneurship: evidence of interrelated concepts’, *Leadership & Organization Development Journal*, 36(8), pp. 906–926. Available at: <http://www.emeraldinsight.com/doi/10.1108/LODJ-03-2014-0053>.

Hannon, P. D. (2005) ‘Philosophies of enterprise and entrepreneurship education and challenges for higher education in the UK’, *The International Journal of Entrepreneurship and Innovation*. SAGE Publications Sage UK: London, England, 6(2), pp. 105–114.

Harvey, Lee; Moon, Sue; Geall, Vicki; Bower, R. (1997) *Graduates’ Work: Organisational Change and Students’ Attributes*. Birmingham: University of Central England, Birmingham. Centre for Research into Quality.

Harvey, L. (2003) *Transitions from higher education to work*. Sheffield.

Hébert, R. F. and Link, A. N. (2006) ‘The entrepreneur as innovator’, *The Journal of Technology Transfer*. Springer, 31(5), p. 589.

Heinonen, J. and Korvela, K. (2003) ‘How about measuring intrapreneurship?’, *Conference Proceedings of 33rd EISB (Entrepreneurship, Innovation and Small Business*, (August), pp. 1–18. Available at: <http://labsel.netco.it/Modules/ContentManagment/Uploaded/CMItemAttachments/How>

%5Cnabout%5Cnmeasuring%5Cnintrapreneurship.pdf.

Henry, C. (2013) 'Entrepreneurship education in HE: are policy makers expecting too much?', *Education + Training*. Edited by P. Harry Matlay, 55(8/9), pp. 836–848. Available at: <http://www.emeraldinsight.com/doi/10.1108/ET-06-2013-0079>.

Henry, C., Hill, F. and Leitch, C. (2003) *Entrepreneurship Education and Training: The Issue of Effectiveness*. Dublin: Routledge. Available at: [https://books.google.ie/books?id=HoVHDwAAQBAJ&pg=PT323&lpg=PT323&dq=Gibb,+A.A.+and+Cotton,+J.+\(1998\),+\"Entrepreneurship+in+schools+and+college+education:+creating+the+leading+edge\",+paper+presented+at+the+Conference+on+Work+Future+and+the+Role+of+Entrepre](https://books.google.ie/books?id=HoVHDwAAQBAJ&pg=PT323&lpg=PT323&dq=Gibb,+A.A.+and+Cotton,+J.+(1998),+\) (Accessed: 18 July 2018).

Henry, C., Hill, F. and Leitch, C. (2005) 'Entrepreneurship education and training: can entrepreneurship be taught? Part I', *Education + Training*, 47(2), pp. 98–111. Available at: <https://www.emeraldinsight.com/doi/10.1108/00400910510586524>.

Higher Education Authority (2015a) *National Employer Survey - Employers' Views on Irish Further and Higher Education Outcomes*. Available at: <http://hea.ie/assets/uploads/2017/06/National-Employer-Survey.pdf>.

Higher Education Authority (2015b) *National Plan for Equity of Access to Higher Education 2015-2019*, Higher Education Authority.

Hillage, J. and Pollard, E. (1998) 'Employability: Developing a framework for policy analysis'. United Kingdom: Department for Education and Employment.

Huq, A. and Gilbert, D. (2017) 'All the world's a stage: transforming entrepreneurship education through design thinking', *Education + Training*, 59(2), pp. 155–170. Available at: <http://www.emeraldinsight.com/doi/10.1108/ET-12-2015-0111>.

Hynes, B. (1996) 'Entrepreneurship Education and Training - Introduction Entrepreneurship into Non-business Disciplines', *Journal of European Industrial Training*, Vol 20(8), p. 10.

Hynes, B. and Richardson, I. (2007a) 'Entrepreneurship education: A mechanism for engaging and exchanging with the small business sector', *Education + Training*, 49(8/9), pp. 732–744.

Hynes, B. and Richardson, I. (2007b) 'Entrepreneurship education: A mechanism for engaging and exchanging with the small business sector', *Education + Training*. Edited by H. Matlay, 49(8/9), pp. 732–744. Available at: <https://www.emeraldinsight.com/doi/10.1108/00400910710834120>.

Hytti, U. and Kuopusjärvi, P. (2004) *Evaluating and measuring entrepreneurship and enterprise education: Methods, tools and practices*. Small Business Inst.

Hytti, U. and O’Gorman, C. (2004) 'What is “enterprise education”? An analysis of the objectives and methods of enterprise education programmes in four European countries', *Education + Training*, 46(1), pp. 11–23.

Interdepartmental Committee on Science Technology and Innovation (2015) *Innovation 2020 Ireland*.

Investopedia (2012) *Per Capita GDP*. Available at: <https://www.investopedia.com/terms/p/per-capita-gdp.asp> (Accessed: 11 May 2018).

Ireland, R. D., Covin, J. G. and Kuratko, D. F. (2009) 'Conceptualizing Corporate Entrepreneurship Strategy', in *Entrepreneurship Theory and Practice*, pp. 19–46. Available at: <https://doi.org/10.1111/etap.12046>.

Jack, S. L. and Anderson, A. R. (1998) 'Entrepreneurship education within the condition of entrepreneurship', in *Proceedings of the Conference on Enterprise and Learning*, pp. 13–28.

Jiménez, A. *et al.* (2015) 'The impact of educational levels on formal and informal entrepreneurship', *BRQ Business Research Quarterly*, 18, pp. 204–212. Available at: [www.elsevier.es/brq](http://www.elsevier.es/brq) (Accessed: 1 November 2018).

Jones-Evans, D., Williams, W. and Deacon, J. (2000) 'Developing entrepreneurial graduates: an action learning approach', *Education + Training*, 42(4), pp. 282–288. Available at: <http://www.emeraldinsight.com/journals.htm?articleid=837646&show=abstract>.

Jones, B. and Iredale, N. (2010) 'Enterprise education as pedagogy', *Education + Training*, 52(1), pp. 7–19.

Jones, C. and English, J. (2004) 'A contemporary approach to entrepreneurship education', *Education + Training*, 46(8/9), pp. 416–423. Available at: <https://www.emeraldinsight.com/doi/10.1108/00400910410569533>.

Jones, C., Matlay, H. and Maritz, A. (2012) 'Enterprise education: For all, or just some?', *Education and Training*, 54(8), pp. 813–824.

Jones, P. *et al.* (2017) 'A tale of two universities: graduates perceived value of entrepreneurship', *Education + Training*, 59(7/8), pp. 689–705. Available at: <https://www-emeraldinsight-com.cit.idm.oclc.org/doi/pdfplus/10.1108/ET-06-2017-0079>.

Jones, P. and Jones, A. (2014) 'Attitudes of Sports Development and Sports Management undergraduate students towards entrepreneurship: A university perspective towards best practice', *Education and Training*, 56(October), pp. 716–732.

de Jong, J. and Wennekers, S. (2008) *Intrapreneurship: Conceptualizing entrepreneurial employee behaviour*. Netherlands. Available at: [www.entrepreneurship-sme.eu](http://www.entrepreneurship-sme.eu). (Accessed: 18 July 2018).

Kantor, J. (1988) 'Can entrepreneurship be taught?: A Canadian experiment', *Journal of Small Business & Entrepreneurship*. Taylor & Francis, 5(4), pp. 12–19.

Katz, J. A. (2003) 'The chronology and intellectual trajectory of American entrepreneurship education 1876-1999', *Journal of Business Venturing*, 18(2), pp. 283–300.

Kelley, D. J., Singer, S. and Herrington, M. D. (2011) 'Global Entrepreneurship monitor 2011 Global Report'.

Kelley, K. *et al.* (2003) 'Methodology Matters Good practice in the conduct and reporting of survey research', *International Journal for Quality in Health Care*, 15(3), pp. 261–266. Available at: [https://watermark.silverchair.com/mzg031.pdf?token=AQECAHi208BE49Ooan9kkhW\\_Ercy7Dm3ZL\\_9Cf3qfKAc485ysgAAAh8wggIbBkgqhkIG9w0BBwagggIMMIICCAI BADCCAqEGCSqGSIb3DQEHATAeBglghkgBZQMEAS4wEQQMG4X3rh-eD2PTfi\\_5AgEQgIIB0rdHmr6swLINR3TxsInQ2fDduLqEF02IGqPwMrafpLaZawGE-](https://watermark.silverchair.com/mzg031.pdf?token=AQECAHi208BE49Ooan9kkhW_Ercy7Dm3ZL_9Cf3qfKAc485ysgAAAh8wggIbBkgqhkIG9w0BBwagggIMMIICCAI BADCCAqEGCSqGSIb3DQEHATAeBglghkgBZQMEAS4wEQQMG4X3rh-eD2PTfi_5AgEQgIIB0rdHmr6swLINR3TxsInQ2fDduLqEF02IGqPwMrafpLaZawGE-)

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nAbt5BD8Bbv5Xnn4MvK02rYZv31XNQsTAiUOc9megKf8EGvRkk6jrxqlaUCdkTM  
NzKD0 (Accessed: 25 September 2018).

Knight, F. H. (Frank H. (2006) *Risk, uncertainty and profit*. Dover Publications.  
Available at:  
[https://books.google.ie/books?hl=en&lr=&id=LFsVFS3OG\\_gC&oi=fnd&pg=PP1&dq=Knight,+OF.+\(1921\).+Risk,+Uncertainty+and+Profit.&ots=pN4Ywla2ZP&sig=bVXqBcpc-lrpcLfk1uMdHVRDUas&redir\\_esc=y#v=snippet&q=risk+entrepreneur&f=false](https://books.google.ie/books?hl=en&lr=&id=LFsVFS3OG_gC&oi=fnd&pg=PP1&dq=Knight,+OF.+(1921).+Risk,+Uncertainty+and+Profit.&ots=pN4Ywla2ZP&sig=bVXqBcpc-lrpcLfk1uMdHVRDUas&redir_esc=y#v=snippet&q=risk+entrepreneur&f=false)  
(Accessed: 27 August 2018).

Knight, P. T. and Yorke, M. (2003) 'Employability and Good Learning in Higher Education', *Teaching in Higher Education*, 8(1), pp. 1–15. Available at:  
[http://www.qualityresearchinternational.com/esecttools/esectpubs/Employability and Good Learning in Higher Education.pdf](http://www.qualityresearchinternational.com/esecttools/esectpubs/Employability+and+Good+Learning+in+Higher+Education.pdf) (Accessed: 18 July 2018).

Knight, P. and Yorke, M. (2002) 'Employability through the curriculum', in *Tertiary Education and Management*. Kluwer Academic Publishers, pp. 261–276. Available at:  
[http://www.qualityresearchinternational.com/esecttools/esectpubs/Employability through the curriculum.pdf](http://www.qualityresearchinternational.com/esecttools/esectpubs/Employability+through+the+curriculum.pdf) (Accessed: 19 July 2018).

Knight, P. and Yorke, M. (2004) *Learning, curriculum and employability in higher education*. RoutledgeFalmer. Available at:  
<https://books.google.ie/books?hl=en&lr=&id=4tt dri->



riQC&oi=fnd&pg=PR7&dq=Knight,+P.+and+Yorke,+M.+(2004),+Learning,+Curriculum+and+Employability+in+Higher+Education,&ots=z95UCtOJyN&sig=\_\_8-8Lv90WtfCx\_v7K5BikDEptw&redir\_esc=y#v=onepage&q=Knight%2C P. and Y (Accessed: 18 July 2018).

Koellinger, P. D. and Thurik, A. R. (2009) *Entrepreneurship and the Business Cycle*. Amsterdam and Rotterdam. Available at: <http://hdl.handle.net/10419/86678www.econstor.eu> (Accessed: 25 August 2018).

Kolb, D. A. (1984) 'Experiential Learning: Experience As The Source Of Learning And Development How You Learn Is How You Live View project'. Available at: <http://www.learningfromexperience.com/images/uploads/process-of-experiential-learning.pdf>! (Accessed: 18 July 2018).

Kolvereid, L. and Moen, Ø. (1997) 'Entrepreneurship Among Business Graduates: Does a Major in Entrepreneurship Make a Difference?', *Article in Journal of European Industrial Training*, 21(4), pp. 154–60. Available at: <https://www.researchgate.net/publication/247612503> (Accessed: 26 August 2018).

Kothari, C. R. (2004) *Research methodology: Methods and techniques*. New Age International.

Kozlinska, I. (2016) 'Evaluation of the outcomes of entrepreneurship education in post-transition context View project Academic entrepreneurship View project'. Available at: <https://www.researchgate.net/publication/311899974>.

Kubberød, E. and Pettersen, I. B. (2018) 'The role of peripherality in students' entrepreneurial learning', *Education + Training*, 60(1), pp. 2–15.

Kumar, S. and Phrommathed, P. (2005) *Research methodology*. Springer.

Kuratko, D. F. (2005) 'The emergence of entrepreneurship education: development, trends, and challenges', *Entrepreneurship Theory and Practice*, 29(5), p. 577–598.

Lackéus, M. (2013) 'Links between Emotions and Learning Outcomes in Entrepreneurial Education', in *Nordic Academy of Management conference (NFF)*. Reykjavik, pp. 1–22.

Lackéus, M. (2015) *Entrepreneurship in Education - What, Why, When, How*. Chalmers.

Law, B. and Watts, A. G. (1977) 'Schools, careers and community'. London: Church Information Office.

Learning and Skills Council (2006) *National Employers Skills Survey 2005: Main Report*. Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/303637/2005nat-nationalemployersskillssurvey2005mainreport-re-june2006.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/303637/2005nat-nationalemployersskillssurvey2005mainreport-re-june2006.pdf) (Accessed: 12 September 2018).

Leitch, C. M. and Harrison, R. T. (1999) 'A process model for entrepreneurship education and development', *International Journal of Entrepreneurial Behavior & Research*, 5(3), pp. 83–109. Available at: <http://www.emeraldinsight.com/doi/10.1108/13552559910284065>.

Leydesdorff, L. and Etzkowitz, H. (1998) *The Triple Helix as a model for innovation studies, Science and Public Policy*. Available at: <http://www.oni.uerj.br/media/downloads/195.full.pdf> (Accessed: 15 September 2018).

Liamputtong, P. and Ezzy, D. (2005) *Qualitative research methods*. Oxford university press Melbourne.

Lowden, K. *et al.* (2011) *Intelligence in the flesh: Employers' perceptions of the employability skills of new graduates*. Glasgow. Available at: [https://curve.coventry.ac.uk/cu/file/2dea66b1-301a-4abb-97e5-8cbb0012bee5/1/Employers Perceptions of the Employability Skills of new graduates.pdf](https://curve.coventry.ac.uk/cu/file/2dea66b1-301a-4abb-97e5-8cbb0012bee5/1/Employers%20Perceptions%20of%20the%20Employability%20Skills%20of%20new%20graduates.pdf) (Accessed: 19 September 2018).

Maher, A. (2004) 'Learning Outcomes in Higher Education: Implications for Curriculum Design and Student Learning', *Journal of Hospitality, Leisure, Sport and Tourism Education*, 3(2), pp. 46–54. Available at: [www.hlst.heacademy.ac.uk/johlste](http://www.hlst.heacademy.ac.uk/johlste) (Accessed: 4 September 2018).

Malhotra, N. K. (2006) 'Chapter 5', in *Questionnaire design and scale development*, pp. 176–202. Available at: <https://www.researchgate.net/publication/266864633> (Accessed: 25 September 2018).

Matlay, H. (2006) *Entrepreneurship Education, Education + Training*. Available at:

<https://ebookcentral.proquest.com/lib/cit-ebooks/reader.action?docID=275471&ppg=15&query=entrepreneurship+education#>  
(Accessed: 19 July 2018).

Matlay, H. (2008) 'The impact of entrepreneurship education on entrepreneurial outcomes', *Journal of Small Business and Enterprise Development*. Edited by G. Solomon. Emerald Group Publishing Limited, 15(2), pp. 382–396. Available at: <http://www.emeraldinsight.com/doi/10.1108/14626000810871745> (Accessed: 26 July 2018).

Matlay, H. and Carey, C. (2007) 'Entrepreneurship education in the UK: a longitudinal perspective', *Journal of Small Business and Enterprise Development*, 14(2), pp. 252–263. Available at: <http://www.emeraldinsight.com/doi/10.1108/14626000710746682> (Accessed: 6 August 2018).

Mayhew, M. J. *et al.* (2012) 'Exploring innovative entrepreneurship and its ties to higher educational experiences', *Research in Higher Education*. Springer, 53(8), pp. 831–859.

McGivern, Y. (2009) *The practice of market research: An introduction*. Pearson Education.

McQuaid, R. W. and Lindsay, C. (2005) 'The concept of employability', *Urban Studies*, 42(2), pp. 197–219.

Mitchell, R. K. *et al.* (2002) 'Toward a Theory of Entrepreneurial Cognition: Rethinking the People Side of Entrepreneurship Research', *Entrepreneurship theory and practice*, 27(2), pp. 93–104.

Morris, M. H. *et al.* (2013) 'A competency-based perspective on entrepreneurship education: Conceptual and empirical insights', *Journal of Small Business Management*, 51(3), pp. 352–369.

Mourshed, M., Farrell, D. and Barton, D. (2012) *Education to employment: Designing a system that works*, McKinsey Center for Government. Available at: [https://npeac.memberclicks.net/assets/education to employment\\_final.pdf](https://npeac.memberclicks.net/assets/education%20to%20employment_final.pdf).

Nabi, G. and Holden, R. (2008) 'Graduate entrepreneurship: Intentions, education and training', *Education + Training*, 50(7), pp. 545–551.

Nilsson, S. (2010) 'Enhancing individual employability: The perspective of engineering graduates', *Education and Training*, 52(6), pp. 540–551.

Nolan, S. (2013) *AHECS 2013: Graduate Recruitment & Employment Survey*. Cork.

O'Connor, A. (2013) 'A conceptual framework for entrepreneurship education policy: Meeting government and economic purposes', *Journal of Business Venturing*. Elsevier Inc., 28(4), pp. 546–563. Available at: <http://dx.doi.org/10.1016/j.jbusvent.2012.07.003>.

O'Connor, J., Fenton, M. and Barry, A. (2012) 'Entrepreneurship education: Ireland's solution to economic regeneration?', *INDUSTRY & HIGHER EDUCATION*, 26(3), pp. 241–249. Available at: [http://doras.dcu.ie/21461/1/Barry\\_and\\_Fenton%2C\\_Entrepreneurship\\_education%2C\\_Industry\\_and\\_higher\\_education.pdf](http://doras.dcu.ie/21461/1/Barry_and_Fenton%2C_Entrepreneurship_education%2C_Industry_and_higher_education.pdf) (Accessed: 11 October 2018).

OECD (2009) *Education at a Glance 2009 Summary of key findings*. Available at: [www.oecd.org/edu/eag2009](http://www.oecd.org/edu/eag2009) (Accessed: 21 August 2018).

OECD (2015) *Education at a Glance 2015: OECD Indicators*, OECD Publishing. Available at: <http://dx.doi.org/10.1787/eag-2015-en>.

Olson, K. (1981) 'A review of recent literature', *National Productivity Review*, 1(1), pp. 129–132. Available at: <http://doi.wiley.com/10.1002/npr.4040010116>.

Oosterbeek, H., van Praag, M. and Ijsselstein, A. (2010) 'The impact of entrepreneurship education on entrepreneurship skills and motivation', *European Economic Review*, 54, pp. 442–454.

Oppenheim, A. N. (1966) 'Questionnaire design and attitude measurement London'. Heinmann Educational Books Ltd.

Palvin, S. E. (2012) 'Employability of graduates and higher education management systems', *Ljubljana: Fakulteta za družbene vede*.

Pegg, A. *et al.* (2012) *Pedagogy for employability*. York. Available at: [https://www.heacademy.ac.uk/system/files/pedagogy\\_for\\_employability\\_update\\_2012.pdf](https://www.heacademy.ac.uk/system/files/pedagogy_for_employability_update_2012.pdf) (Accessed: 18 July 2018).

Pinchot III, G. and Pinchot, E. S. (1978) *Intra - Corporate Entrepreneurship*.

- Pittaway, L. and Cope, J. (2007) 'Entrepreneurship education: A systematic review of the evidence', *International Small Business Journal*, 25(5), pp. 479–510.
- Pittaway, L. and Edwards, C. (2012) 'Assessment: Examining practice in entrepreneurship education', *Education and Training*, 54(8), pp. 778–800.
- Plastrik, P., Seltzer, M. B. and Combes Taylor, J. (2003) *Changing Labor Markets: A Systems Approach to Reform*. Available at: <https://files.eric.ed.gov/fulltext/ED478125.pdf> (Accessed: 12 September 2018).
- Rae, D. (2000) 'Understanding entrepreneurial learning: a question of how?', *International Journal of Entrepreneurial Behavior & Research*. MCB UP Ltd, 6(3), pp. 145–159.
- Rae, D. (2005) 'Entrepreneurial learning: a narrative-based conceptual model', *Journal of Small Business and Enterprise Development*, 12(3), pp. 323–335. Available at: [www.emeraldinsight.com/researchregister](http://www.emeraldinsight.com/researchregister) (Accessed: 18 July 2018).
- Rae, D. (2007) 'Connecting enterprise and graduate employability: Challenges to the higher education culture and curriculum', *Education + Training*, 49(8/9), pp. 605–619.
- Rae, D. (2008) 'Riding out the storm: Graduates, enterprise and careers in turbulent economic times', *Education and Training*, 50(8–9), pp. 748–763.
- Rae, D. (2010) 'Universities and enterprise education: responding to the challenges of the new era', *Journal of Small Business and Enterprise Development*, 17(4), pp. 591–606. Available at: <http://www.emeraldinsight.com/doi/10.1108/14626001011088741>.
- Rahman, M. S. (2016) 'The Advantages and Disadvantages of Using Qualitative and Quantitative Approaches and Methods in Language "Testing and Assessment" Research: A Literature Review', *Journal of Education and Learning*, 6(1), p. 102. Available at: <http://www.ccsenet.org/journal/index.php/jel/article/view/64330>.
- Rao, M. . (2015) 'Why top people can shortlist their employer: It is all to do with emphasizing employability over employment', *Human Resource Management International Digest*, 23(3), pp. 29–31. Available at: <http://www.emeraldinsight.com/doi/10.1108/HRMID-03-2015-0050>.

Rao, M. S. (2013) 'Blend hard and soft skills to fast-track a management career', *Human Resource Management International Digest*, 21(7), pp. 3–4.

Reich, R. B. (1991) 'The work of nations, Alfred A', *Knop, New York. Google Scholar*.

Reynolds, P. D., Hay, M. and Camp, M. S. (1999) 'Global Entrepreneurship Monitor 1999 Executive Report', *Kauffman Foundation, Babson College; London Business School.*, pp. 1–46.

Richens, G. P. (1999) *Perceptions of Southern Nevada Employers Regarding the Importance of SCANS Workplace Basic Skills*. Available at: <https://files.eric.ed.gov/fulltext/ED438460.pdf> (Accessed: 4 September 2018).

Robinson Jr, R. B. and Pearce, J. A. (1984) 'Research thrusts in small firm strategic planning', *Academy of management Review*. Academy of Management Briarcliff Manor, NY 10510, 9(1), pp. 128–137.

Rosenbaum, J. E. (2002) 'Beyond Empty Promises: Policies To Improve Transitions into College and Jobs.' ERIC.

Rosenberg, S., Heimler, R. and Morote, E.-S. (2012) 'An exploratory study of factors affecting undergraduate employability', *Education + Training*, 54(1), p. pp. Available at: <https://www-emeraldinsight-com.cit.idm.oclc.org/doi/pdfplus/10.1108/00400911211198869> (Accessed: 12 September 2018).

Saunders, M., Lewis, P. and Thornhill, A. (2009) *Research methods for business students*. Pearson education.

Scholarios, D. *et al.* (2008) 'Employability and the psychological contract in European ICT sector SMEs', *The International Journal of Human Resource Management*, 19(6), pp. 1035–1055. Available at: <http://www.informaworld.com> (Accessed: 31 August 2018).

Schulz, B. (2008) 'The Importance of Soft Skills: Education beyond academic knowledge', *Journal of Language and Communication*, pp. 146–155. Available at: <http://ir.polytechnic.edu.na/handle/10628/39%5Cnhttp://www.hgsitebuilder.com/files/writable/uploads/hostgator427959/file/ijars209.pdf%5Cnhttp://www.tandfonline.com/do>

i/abs/10.1080/03797720802522627%5Cnhttp://www.lifeskills.vcu.edu/lifeskills.html%5Cnhttp.

Sedlan Kónig, L., Mezulić Juric, P. and Koprivnjak, T. (2016) 'Graduate Employability: A Gap between Perspectives-the Case of Croatia', *Advances in Economics and Business*, 4(10), pp. 525–538. Available at: <http://www.hrpub.org> (Accessed: 18 July 2018).

Sewell, P. and Dacre Pool, L. (2010) 'Moving from conceptual ambiguity to operational clarity: Employability, enterprise and entrepreneurship in higher education', *Education and Training*, 52(1), pp. 89–84.

Shane, S. and Venkataraman, S. (2000) 'The Promise of Entrepreneurship as a Field of Research', *Academy of Management Review*, 25(1), pp. 217–226. Available at: <http://careerfunda.in/phocadownload/E-BOOKS/Entrepreneurship - Concepts, Theory and Perspective, Springer 2007.pdf#page=171>.

Shepherd, D. A. and Douglas, E. J. (1996) 'Is management education developing, or killing, the entrepreneurial spirit', in *Proceedings of the Internationalising Entrepreneurship Education and Training Conference*.

Sieger, P., Fueglistaller, U. and Zellwege, T. (2016) *GUESS Report: Student Entrepreneurship 2016: Insights From 50 Countries*.

Skills Active (2005) *Skills Needs Assessment for the Sport and Recreation*. Available at: <http://www.kirolan.org/El sector del empleo deportivo/0.1.2.Skills Needs Sport and Recreation.pdf> (Accessed: 12 September 2018).

Small Business Act (2018a) *2017 SBA Fact Sheet - Croatia*.

Small Business Act (2018b) *2017 SBA Fact Sheet - Ireland*.

Smith, P. A. C. (2001) 'Action learning and reflective practice in project environments that are related to leadership development', *Management Learning*. Sage Publications Sage CA: Thousand Oaks, CA, 32(1), pp. 31–48.

SOLAS (2018) *2018-2021 Further Education and Training Policy Framework for Skills Development of People in Employment: Background Paper*. Available at: <http://www.solas.ie/SolasPdfLibrary/SupportingWorkingLivesEnterpriseGrowth->

BackgroundPaper\_Sept2018.pdf (Accessed: 11 October 2018).

Solomon, G. T., Duffy, S. and Tarabishy, A. (2002) 'The state of entrepreneurship education in the United States: A nationwide survey and analysis', *International journal of entrepreneurship education*, 1(1), pp. 65–86.

Song, H. *et al.* (2016) 'Industrial Management & Data Systems Article information ', *Industrial Management & Data Systems*, 116(4), pp. 740–758.

*Starting a Business - Doing Business - World Bank Group* (2017). Available at: <http://www.doingbusiness.org/en/data/exploretopics/starting-a-business> (Accessed: 11 May 2018).

Stephenson, J. (1998) *The Concept of Capability and its Importance in Higher Education Education*. Available at: [https://s3.amazonaws.com/academia.edu.documents/32431085/heca\\_cq\\_01.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1533128525&Signature=gCjU%2B%2BGJZxBGD5Wt6pmL%2BtcWYJU%3D&response-content-disposition=inline%3Bfilename%3DArchive\\_Material\\_Original\\_Locat](https://s3.amazonaws.com/academia.edu.documents/32431085/heca_cq_01.pdf?AWSAccessKeyId=AKIAIWOWYYGZ2Y53UL3A&Expires=1533128525&Signature=gCjU%2B%2BGJZxBGD5Wt6pmL%2BtcWYJU%3D&response-content-disposition=inline%3Bfilename%3DArchive_Material_Original_Locat).

Støren, L. A. (2014) 'Entrepreneurship in higher education: Impacts on graduates' entrepreneurial intentions, activity and learning outcome', *Education + Training*. Edited by P. Harry Matlay, 56(8/9), pp. 795–813. Available at: <http://www.emeraldinsight.com/doi/10.1108/ET-06-2014-0070>.

Strategy Group, E. (2004) *Ahead of the Curve Enterprise Strategy Group*. Available at: <https://dbei.gov.ie/en/Publications/Publication-files/Forfás/Enterprise-Strategy-Group-Report-Full-Report.pdf> (Accessed: 18 August 2018).

Sweetman, R., Hovdhaugen, E. and Karlsen, H. (2014) 'Learning outcomes across disciplinary divides and contrasting national higher education traditions', *Tertiary Education and Management*. Taylor & Francis, 20(3), pp. 179–192.

Teichler, U. (2003) *The future of higher education and of higher education research*, *Tertiary Education and Management*. Kluwer Academic Publishers. Available at: <http://link.springer.com/10.1007/s10734-008-9124-6>.

Teichler, U. (2009) *Higher education and the world of work*. Rotterdam: Sense Publishers



B. V. Available at: [https://www.uni-kassel.de/einrichtungen/fileadmin/datas/einrichtungen/incher/T\\_14\\_\\_HEWWfinal2nd\\_\\_2009.pdf](https://www.uni-kassel.de/einrichtungen/fileadmin/datas/einrichtungen/incher/T_14__HEWWfinal2nd__2009.pdf).

The European Commission (2010) *Europe 2020*. Available at: [http://ec.europa.eu/eu2020/pdf/COMPLET\\_EN\\_BARROSO\\_007 - Europe 2020 - EN version.pdf](http://ec.europa.eu/eu2020/pdf/COMPLET_EN_BARROSO_007_-_Europe_2020_-_EN_version.pdf) (Accessed: 25 August 2018).

The European Commission (2012) *Effects and impact of entrepreneurship programmes in higher education*. Brussels.

The Quality Assurance Agency for Higher Education (2018) *Enterprise and Entrepreneurship Education: Guidance for UK Higher Education Providers*. Available at: [https://www.qaa.ac.uk/docs/qaas/enhancement-and-development/enterprise-and-entrepreneurship-education-2018.pdf?sfvrsn=15f1f981\\_8](https://www.qaa.ac.uk/docs/qaas/enhancement-and-development/enterprise-and-entrepreneurship-education-2018.pdf?sfvrsn=15f1f981_8) (Accessed: 11 October 2018).

The World Bank (2017) *Ease of doing business index (1=most business-friendly regulations)* / *Data*. Available at: <https://data.worldbank.org/indicator/IC.BUS.EASE.XQ> (Accessed: 5 November 2018).

Tidd, J., Bessant, J. and Pavitt, K. (2005) *Managing Innovation: Integrating Technological, Market and Organizational Change Third Edition*. Available at: [https://erl.ucc.edu.gh/jspui/bitstream/123456789/3001/1/%5BJoe\\_Tidd%2C\\_John\\_Bessant%2C\\_Keith\\_Pavitt%5D\\_Managing\\_In%28BookZZ.org%29.pdf](https://erl.ucc.edu.gh/jspui/bitstream/123456789/3001/1/%5BJoe_Tidd%2C_John_Bessant%2C_Keith_Pavitt%5D_Managing_In%28BookZZ.org%29.pdf) (Accessed: 5 October 2018).

Tomlinson, M. (2008) ‘“The degree is not enough”: students’ perceptions of the role of higher education credentials for graduate work and employability’, *British journal of sociology of education*. Taylor & Francis, 29(1), pp. 49–61.

Tomlinson, M. (2012) ‘Graduate Employability: A Review of Conceptual and Empirical Themes’, *Higher Education Policy*. Palgrave Macmillan UK, 25(4), pp. 407–431. Available at: <http://link.springer.com/10.1057/hep.2011.26> (Accessed: 18 July 2018).

U.S Department of Labor (1991) *What Work Requires of Schools* -. Available at: <https://wdr.doleta.gov/SCANS/whatwork/whatwork.pdf> (Accessed: 11 September 2018).

Ulvenblad, P., Berggren, E. and Winborg, J. (2013) ‘The role of entrepreneurship

education and start-up experience for handling communication and liability of newness’, *International Journal of Entrepreneurial Behaviour and Research*, 19(2), pp. 187–209.

Urban, B. and Wood, E. (2017) ‘The innovating firm as corporate entrepreneurship’, *European Journal of Innovation Management*, 20(4), pp. 534–556. Available at: <http://www.emeraldinsight.com/doi/10.1108/EJIM-10-2016-0100>.

Vargas-Halabí, T., Mora-Esquivel, R. and Siles, B. (2017) ‘Development and validation of a measurement scale Article information’, *European Journal of Management and Business Economics*, 26(1), pp. 86–111. Available at: <https://doi.org/10.1108/EJMBE-07-2017-006> (Accessed: 18 July 2018).

Vesper, K. H. (1998) ‘Unfinished Business ( Entrepreneurship ) of the 20th Century’, *USASBE Address*, (January).

Ward, T. and Baruah, B. J. (2014) ‘Enhancing intrapreneurial skills of students through entrepreneurship education a case study of an interdisciplinary Engineering Management Programme’, in *13th International Conference on Information Technology based Higher Education and Training (ITHET)*, pp. 1–6.

Watts, A. G. (2006) ‘Career development learning and employability’, *Career Development*, Series 2(July), pp. 1–40.

Watts, A. G. and Hawthorn, R. (1992) *Careers education and the curriculum in higher education*. Cambridge.

Wellman, N. (2010) ‘The employability attributes required of new marketing graduates’, *Marketing Intelligence & Planning*, 28(7), pp. 908–930. Available at: <https://www.researchgate.net/publication/235253185> (Accessed: 4 September 2018).

Wisker, G. (2008) *The postgraduate research handbook : succeed with your MA, MPhil, EdD and PhD*. Palgrave Macmillan. Available at: [https://books.google.ie/books?hl=en&lr=&id=tdxeAQAAQBAJ&oi=fnd&pg=PP1&dq=Wisker,+G.+\(2008\).+The+Postgraduate+Research+Handbook+&ots=ofeUnwNtyo&sig=9FDhS3UyIp7Mo8cRmah1e4sfmJY&redir\\_esc=y#v=onepage&q&f=false](https://books.google.ie/books?hl=en&lr=&id=tdxeAQAAQBAJ&oi=fnd&pg=PP1&dq=Wisker,+G.+(2008).+The+Postgraduate+Research+Handbook+&ots=ofeUnwNtyo&sig=9FDhS3UyIp7Mo8cRmah1e4sfmJY&redir_esc=y#v=onepage&q&f=false) (Accessed: 25 September 2018).

World Bank Group (2018) *Ireland Doing Business 2018*. Available at:

<http://www.doingbusiness.org/content/dam/doingBusiness/country/i/ireland/IRL.pdf>  
(Accessed: 4 October 2018).

World Economic Forum (2009) *Educating the Next Wave of Entrepreneurs Unlocking entrepreneurial capabilities to meet the global challenges of the 21 st Century A Report of the Global Education Initiative REPORT ON ENTREPRENEURSHIP EDUCATION World Economic Forum*. Available at: [www.weforum.org](http://www.weforum.org) (Accessed: 18 July 2018).

World Economic Forum (2017) *The Global Competitiveness Report 2017–2018*. Available at: <http://www3.weforum.org/docs/GCR2017-2018/05FullReport/TheGlobalCompetitivenessReport2017–2018.pdf>.

Yorke, M. (1999) 'The skills of graduates: a small enterprise perspective', *The Higher Education Academy*. Kogan Page London, pp. 174–183.

Yorke, M. (2006a) *Employability in higher education: what it is – what it is not*, *The Higher Education Academy*. Available at: <http://doi.wiley.com/10.1002/ir.162>.

Yorke, M. (2006b) *Employability in higher education: what it is – what it is not*. Available at: <http://doi.wiley.com/10.1002/ir.162>.

Yorke, M. and Knight, P. T. (2006) 'Embedding employability into the curriculum', *Learning and Employability*, (1), pp. 1–28. Available at: [http://qualityresearchinternational.com/esecttools/esectpubs/Embedding\\_employability\\_into\\_the\\_curriculum.pdf](http://qualityresearchinternational.com/esecttools/esectpubs/Embedding_employability_into_the_curriculum.pdf).

Zahra, S. A. and Covin, J. G. (1994) 'The financial implications of fit between competitive strategy and innovation types and sources', *The Journal of High Technology Management Research*. Elsevier, 5(2), pp. 183–211.

Zahra, S. A. and Covin, J. G. (1995) 'Contextual influences on the corporate entrepreneurship-performance relationship: A longitudinal analysis', *Journal of Business Venturing*. Elsevier, 10(1), pp. 43–58. Available at: <https://www.sciencedirect.com/science/article/abs/pii/088390269400004E> (Accessed: 18 July 2018).

Zikmund, W. G. *et al.* (2013) *Business research methods*. Cengage Learning.