# Unpacking the link between Entrepreneurialism and Employability: An assessment of the relationship between entrepreneurial attitudes and likelihood of graduate employment in a professional field

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## Abstract

#### Purpose

This research investigates the relationship between students' entrepreneurial attitudes and traits and their classification of employment six months after university graduation. It aims to identify what specific attitudes and traits of entrepreneurial graduates are linked to employability in a professional or managerial field.

## Design/Methodology

The research adopts a quantitative approach to measure the entrepreneurial drive of final-year undergraduate business school students and regresses this measurement against the employment level of the same students six months after their graduation. The employment classification of each respondent was classified as 'professional/managerial' or 'non-professional/non-managerial', in line with the Standard Occupational Classification (SOC) 2010.

#### **Findings**

The research found that both proactive disposition and achievement motivation were statistically linked to the likelihood of graduates being employed in a professional or managerial position six months after graduation.

#### **Originality/Value**

This research goes beyond existing literature linking entrepreneurship to employability to quantitatively examine what specific attitudes and traits can be linked to employability in recent graduates. By identifying the aspects of entrepreneurialism that have a relationship with employability, more information is available for educators who are designing entrepreneurial education programs and allows for greater focus on aspects that may be of greatest benefit to all students.

#### **Keywords**

Graduate Employability, Entrepreneurship, Entrepreneurial Drive, Entrepreneurial Measurement, Entrepreneurship Education

## Introduction

Student employability is high on the agendas of business schools (Avramenko 2012; Hay 2008) and higher education establishments (Rae, 2007; Sewell and Pool, 2010). The educational process in business schools has been criticised for not adequately developing student employability skills (Neubaum et al., 2009; Bennis and O'Toole, 2005). Harvey et al. (1997) concluded that employers want graduates to possess knowledge, intellect, a willingness to learn, self- management skills, good communicational and interpersonal skills, and the ability to be a team player.

As universities seek to improve graduate employability, they have also placed importance on the development of the next generation of entrepreneurs. While the debate continues on the efficacy of entrepreneurship education, the literature has acknowledged employability and entrepreneurialism as complimentary skills. For example, Kivinen et al. (2000) highlighted the importance, in a competitive job market, of an entrepreneurial spirit, flexibility, and an eagerness to achieve results. An entrepreneurial attitude has been argued to aid job searching, preparing for the market, and presenting one's abilities (Smith et al., 2006). It often involves the identification of opportunities and taking action to make things happen (Davis et al., 1991). However, the way to best encourage both entrepreneurialism and employability in students is still under debate and linkages between specific aspects of entrepreneurialism and employability have not yet been identified.

## **Research Aim**

This research aims to determine if a relationship exists between the specific entrepreneurial drive dimensions of students and the relative likelihood of students being employed six months after graduation in professional or managerial employment. This research furthers the study of entrepreneurship education, which has previously argued in favour of a positive relationship between entrepreneurship and employability, by identifying which specific dimensions of entrepreneurship have the greatest relationship to graduate employment in a professional or managerial field six months after graduation.

## **Literature Review**

## The Relationship between Employability and Higher Education

Yorke (2004 p.8) defined employability as "a set of skills, knowledge, and personal attributes that make an individual more likely to secure and be successful in their chosen occupation to the benefit of themselves, the workforce, the community and the economy." This 'supply-side' definition of employability has been expanded upon in some employment policy literature to include 'demand-

side,' external aspects such as labour market conditions (McQuaid et al., 2005). This research, which focuses on relationship between entrepreneurial skills of graduates and employment, will adopt the Yorke definition. While a theoretical working definition of employability may be reached, it must be acknowledged that an employer's choices when hiring an individual are influenced by more than these factors. Teichler (2009) found that employers' perceptions of potential employees with the same qualifications vary, depending on the employers' traditions, social biases, and the existence of nepotism, which may determine an employer's hiring choice more than do qualifications (Jaskiewicz et al., 2013)

The theoretical framework for the relationship between education and employability has been examined in economics literature, and education has been viewed as both a 'signal' to employers of ability (Spence, 1973; Stiglitz, 1975) and as a developer of abilities and skills, that is, 'human capital' (Cai, 2013, Schultz, 1961, Becker, 1962). Spence (1973) looked at education as an indicator or signal of abilities and skills. Individuals invest time and money in education in order to 'signal' to employers that they possess the requisite skills, lessening the perceived risk an employer feels during the hiring process (Stiglitz, 1975). The education itself is a proxy for ability, rather than a process through which ability is developed.

A contrary view is that knowledge and skill are the result of an investment in developing human capital, which the OECD (2001) defines as "productive wealth embodied in labor, skills and knowledge." Education is a source of this human capital development, as it provides the opportunity for students to gain marketable skills and increase their job-relevant abilities (Schultz, 1961 and Becker, 1962). The educated individual is more skilled and thus more attractive and more successful in the labour market (Marginson, 1989).

Since both models put forth a positive relationship between education and employability, it can be argued that the two models cannot be empirically distinguished (Lang and Kropp, 1986). A recent survey of employers in the UK revealed that graduates entering the workforce are expected to have developed both the competences encapsulated in their degree program and a range of soft skills, such as team-working, communication, critical thinking, problem solving and leadership (Lowden et al., 2011). Whether these skills are the result of the university experience or are skills inherent in (i.e., signalled by) students who are able to both afford and complete a degree program, the end effect is that education is increasingly demanded by students who want to enhance their employability. Indeed, the years following the 2008 financial crisis saw both an increase in unemployment and a surge in university enrolment (Long, 2015).

Despite the differing theories on the role of education in producing employable graduates, higher education institutions have responded to the increased demand in education by working towards

producing highly employable graduates (Sewell and Pool, 2010). A 2011 report by the UK Department for Business Education and Skills highlighted that it is increasingly expected that courses offer value, that is, skills that increase employability, for the money students invest in them. Universities' commitment to this agenda has led to the development of strategies directed at enhancing graduates' employability skills, including soft skills, introducing new courses, modifying existing courses, and offering work experience opportunities (Anderson et al., 2008; Finch et al., 2013). The aspects that can be developed in university-level students to increase their employability are a line of study that has calls for more research (Finch et al. 2013).

Another priority of higher education in the twenty-first century is developing graduates who will become entrepreneurs, as entrepreneurship is perceived as a key element in increasing a country's competitiveness and stimulating growth (Martinez et al., 2010, O'Connor, 2013). The relationships between entrepreneurship and employability in graduates will be explored in the next section. This will be followed by an overview of the attitudes and traits that make a student 'entrepreneurial'.

#### Employability and Entrepreneurship

The development of entrepreneurship as an academic subject has seen considerable growth since the turn of the century, which has ushered in changes in overall employment structure (O'Connor, 2013). Economic realities such as downsizing, labour-force shifts, and restructuring mean that the path from higher education to sustainable employment is less direct than in previous years (Duval-Couetil, 2013; Kirby, 2004). As a result, graduates may not be adequately equipped if they are armed only with employment skills to take on a shifting world in which entrepreneurial start-ups are considered a key factor of modern economic growth (Duval-Couetil, 2013; Minniti, 2006).

It has been argued that a business education with a strong focus on entrepreneurial skills can enable students to develop their self-efficacy and acquire the required knowledge and skills to develop new initiatives (Baum and Locke, 2004; Luthje and Franke, 2003). The literature on the efficacy of entrepreneurship education is not conclusive, with Henry, Hill, and Leitch (2005) arguing that while entrepreneurship skills can be taught, entrepreneurship is also partially an 'art,' that cannot be imparted. However, a number of recent studies have argued that entrepreneurial teaching programs have positively impacted students' entrepreneurialism (Athayde, 2009; Bell, 2015; Fayolle and Gally, 2015; Karlsson and Moberg, 2013).

While the focus of entrepreneurial education may not be on enhancing graduate employability (Duval-Couetil, 2013), the literature has shown that the two subjects are related. According to Rae (2007), enterprising students and graduates are generally regarded as being more employable than those without enterprise skills. Since many of the enterprise skills can be regarded as

entrepreneurial behaviours, this would suggest that students with a higher entrepreneurial spirit would be more enterprising, more employable, and consequently more likely to obtain higher level graduate employment. Reinforcing this, Laguador and Ramos (2014) found that employers prefer graduates who have entrepreneurial skills. Charney and Libecap (2000) found in a comparative study between entrepreneurship and non-entrepreneurship graduates that entrepreneurship graduates, that is, students whose course of study had a focus on entrepreneurship modules, employed within organisations were more likely to be employed on a full time basis and were, on the whole, more satisfied with their employment opportunities.

If it can be shown that a students' entrepreneurialism can be developed to some extent, and that there is a positive link between graduates' entrepreneurial tendencies and their employability (Rae, 2007; Laguador and Ramos, 2014; Charney and Libecap, 2000), what remains to be uncovered is what is it about entrepreneurial students that makes them more successful and employable in the employment market? To examine this topic requires distinction of what makes a student 'entrepreneurial' and exploration of those aspects that can be examined/measured.

#### Measuring Entrepreneurship in Students

The study of entrepreneurialism in students differs from studying entrepreneurs, as many students have not yet begun their employment and/or entrepreneurial pursuits, meaning that the instruments used to identify differences between working-level entrepreneurs and nonentrepreneurs based on their behaviour (i.e., engaging in entrepreneurial activities) may not be appropriate. However, an attitudinal approach has been argued to be able to discern entrepreneurial characteristics in students, as attitude and personality can be used to predict behaviour (Hatten and Ruhland, 1995). From this perspective, the literature has identified entrepreneurial skills, attitudes, and traits that are able to be developed in students, developed from studies on entrepreneurs in the workplace. The attitudinal approach to the study of entrepreneurship resulted in intention models that have been used as a means of measuring intention or attitude towards entrepreneurial behaviour, pursuant to Ajzen's (2002) theory of planned behaviour (Fayolle and Gally, 2015).

Florin et al. (2007) developed a comprehensive model dedicated to measuring the entrepreneurial drive (ED) of students. The ED model's approach is based on affect (feelings), cognition (beliefs and thoughts), and conation (intention to behave in a certain way) (Robinson et al, 1991). Florin et al. (2007, p. 26) defined ED as "an individual's perception of the desirability and feasibility to proactively pursue opportunities and creatively respond to challenges, tasks, needs, and obstacles in

innovative ways." The model replaces or modifies items specific to practicing entrepreneurs to create a measurement instrument appropriate for students. The five latent constructs that form the basis of ED are: preference for innovation, self-efficacy, non-conformity, proactive disposition, and achievement motivation.

Innovation refers to creativity, experimentation, creation, and creative destruction, which are key traits of entrepreneurs (Schumpeter, 1942). Innovation can also be considered in terms of developing and introducing new products and services, as well as perceiving and acting upon activities in new and unique ways (Lumpkin and Dess, 2001; Robinson et al., 1991). Students can show a preference for innovation by displaying creative and original thinking when completing class assignments and other extracurricular activities (Florin et al., 2007)

Self-efficacy is a belief in one's ability to successfully complete a task or attain a desired goal (Bandura, 1977). As such, it is a useful construct with which to predict an entrepreneur's behavioural persistence and effectiveness (Chen et al., 1998). It has been argued that differences in work interest and performance can often be traced back to differences in self-efficacy, which affects individual persistence, initiative and performance (Krueger, 2000). Students' self-efficacy can be observed by looking at their extracurricular activities; students with high self-efficacy will be more likely to be involved in the creation and running of student organizations (Florin et al., 2007).

Non-conformity means challenging the norms or accepted rules using originality and creative thinking (Mudd, 1996; Rosenfeld et al., 1993). Students who desire personal control over outcomes are more likely not to conform to others rules and regulations, and as a result will exhibit a higher level of non-conformity (Seibert et al., 2001).

Proactiveness focuses on implementation and on initiative to make things happen, using whatever means may be necessary (Davis et al., 1991). A proactive disposition is linked with career success (Seibert et al., 2001). It may involve seeking opportunities, looking forward, and anticipating the future actions of competitors (Lumpkin and Dess, 2001).

Entrepreneurs hold achievement as an important goal (Hornaday, 1982). Motivation to achieve has a positive effect on the performance of the enterprise (Stewart et al., 1999). Florin et al. (2007) argued that promoting achievement motivation in students can be approached by providing positive feedback regarding potential or realized entrepreneurial activities.

## Methodology

#### Data Collection Methods

Data was collected from undergraduate students (some of whom later graduated) from a UK business school via two self-administered questionnaires that were disseminated electronically to students via a web link embedded in an email. All participation was voluntary and students were assured their anonymity would be maintained throughout the study. The students were all undertaking a business-related course of study, and all students had completed a mandatory first-year enterprise and entrepreneurship module. The business school did not offer a specialist entrepreneurship program of study, so the students had all been exposed to similar levels of entrepreneurship education throughout their studies. It was an aspect of all of their undergraduate education rather than the focus.

A questionnaire measuring entrepreneurial drive (ED questionnaire) was sent to all full-time undergraduate students enrolled at the business school. The ED questionnaire consisted of 42 questions. Students were asked to rate themselves on a scale of one (strongly disagree) to five (strongly agree) against the questions based on the entrepreneurial dimensions in the student context. The scale questions can be found in Table Four. The questionnaire also included eleven demographic/background questions. The ED questionnaire produced a total of 340 responses across the three different years of undergraduate study. The questionnaire produced 91, 87, and 162 responses from first, second, and third years, respectively.

From the ED questionnaire responses, the 162 third-year respondents were sent the second questionnaire measuring their level of employment (employment questionnaire) six months after they had graduated. The employment questionnaire asked students to self-categorize their employment, describe their responsibilities, and give their job title. The self-categorization question included descriptions of job categorizations based on the Standard Occupational Classification (SOC) (Office for National Statistics, 2010). The SOC criteria includes nine employment groups, based on skill level and required qualifications and experience. These groups were then divided into a managerial/professional category and a non-managerial/non-professional category, in line with criteria used by the UK Higher Education Statistics Agency to categorize graduate employment from data collected six months after graduation.

To support the robustness of the classification process, the employment classification used in this study was developed from a triangulation of the respondent's self-categorization (based on SOC descriptions), their job title, and a brief job description. The employment questionnaire produced a total of 113 responses, 8 of which were removed from the data set as the graduates were unemployed. Table 1 shows a breakdown of the responses.

Gender		
Male	Female	Total
27	33	60
20	25	45
5	3	8
52	61	113
	Male 27 20 5	Male Female   27 33   20 25   5 3

#### Table 1 Respondents Job Category and Gender Breakdown

#### Statistical Analysis

The questionnaires were used such that the data collected could be subjected to statistical analysis to determine if any relationship existed between students' entrepreneurial attitudes and traits and their employment level. The data collected from the ED questionnaire were tested to ensure the sample size was suitable for principle component analysis, which was then used to confirm the ED factors to be tested. The data were then divided into respective respondents' year of study in order to confirm the validity of the ED measurement instrument in the UK context through the use of concurrent validity testing. Binary logistic regression was conducted to determine whether the factors from the ED questionnaire could explain the likelihood of graduate respondents' job category in the employment questionnaire.

The subscales measuring each component of ED were subjected to MANOVA analysis for differences based on the current study year of the respondents and the gender of the respondents. The latter was used to control for gender differences.

The data from the employment questionnaire was paired with the corresponding student respondent's final-year ED factor scores from the ED questionnaire (using the students' ID numbers and email addresses). The data were quantitatively analysed to test whether generalizations could be made about the relationships of the two data sets. The data were correlated and then regressed using binary logistic regression to determine if a relationship could be identified between the individual ED dimension scores and the two employment classifications. Binary logic regression allowed the research to show whether an increase in any of the ED dimensions was related to an increased likelihood that students would be employed in a professional/managerial line of work.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Because this research looks at two categories of employment (i.e., two outcomes), binary logistic regression is the most appropriate approach. Logistic regression allows the predicting of categorical outcomes from continuous predictors. The ED dimensions are used as predictors and are in this research being treated as continuous scale variables.

## **Data Analysis and Results**

## Principle Component Analysis

The Kaiser-Meyer-Olkin (KMO) test was conducted on the ED questionnaire to ensure the sample size was suitable for principle component analysis. The results indicated that the sample size was suitable, producing a score of .832. The principle component analysis produced five distinct factors in line with the work of Florin et al. (2007), which are shown in Tables 2 and 3. Loadings below .4 were suppressed (Stevens, 2002). Two of the questions that were associated with the preference for innovation factor did not exhibit a loading of .4 or greater and were removed ("I usually take control in unstructured situations" and "I believe that to arrive at a good solution to a problem, it is important to question the assumptions made in defining the problem"), supporting a clean factor structure. The total variance explained by the 5 factors was 49.52% (see table 2). The Cronbach Alpha scores contained in Table 3 indicate that the internal consistency for all five factors is acceptable<sup>2</sup>.

**Table 2** Total Variance Explained in Principle Component Analysis of Scale Items MeasuringEntrepreneurial Drive Dimensions

	Initial Eigenvalues			Rotation Sums of Squared Loadings			
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	
1	5.767	14.418	14.418	4.979	12.447	12.447	
2	5.100	12.751	27.169	4.404	11.011	23.458	
3	4.150	10.376	37.545	4.176	10.440	33.898	
4	2.721	6.803	44.349	3.358	8.394	42.292	
5	2.070	5.176	49.524	2.893	7.232	49.524	

Extraction method: Principle component

<sup>&</sup>lt;sup>2</sup> Cronbach Alpha scores of greater than 0.7 are generally regarded as satisfactory in terms of internal validity (Bland and Altman, 1997).

## Table 3 Rotated Factor Matrix

			Factor				
Dimensions	Item Description	1	2	3	4	5	
Proactive Disposition α=.887	No matter what the odds, if I believe in something I will make it happen	.768					
	I get a thrill out of doing new, unusual things at university or work	.763					
	I am constantly on the lookout for new ways to improve my life	.761					
	I excel at identifying opportunities	.752					
	I can spot a good opportunity long before others can	.725					
	I love being a champion for my ideas, even against others' opposition	.704					
	I am always looking for better ways to do things	.658					
	Nothing is more exciting than seeing my ideas turn into reality	.653					
	If I see something I don't like, I fix it	.629					
Preference for Innovation	I believe it is important to approach opportunities in unique ways		.742				
α=.834	I get excited when I am able to approach tasks in unusual ways		.706				
	I enjoy finding good solutions to problems that nobody has looked at yet		.676				
	I usually seek out colleagues who are excited about exploring new ways of doing things		.621				
	I believe that to be successful one must sometimes do things in ways that could seem unusual at first glance		.602				
	I often approach university tasks in unique ways		.596				
	I believe that when pursuing goals or objectives, the final result is far more important than following the accepted procedures		.593				
	I enjoy being the catalyst for change in school or work affairs		.574				
	I enjoy being able to do things in new ways		.532				
	I believe it is important to continually look for new ways to do things at university or work		.496				
	I get really excited when I think of new ideas to stimulate my group's performance in university assignments		.492				
	I usually take control in unstructured situations		-				
	I believe that to arrive at a good solution to a problem, it is important to question the		-				

	assumptions made in defining the problem		
Self-Efficacy <sup>*</sup> α=.852	I feel very self-conscious when making university presentations	.778	
	I often feel badly about the quality of work I do	.767	
	I never persist very long on a difficult job before giving up	.767	
	I feel self-conscious when I am with very successful people	.763	
	I seem to spend a lot of time looking for someone who can tell me how to solve all my university problems	.753	
	I often put on a show to impress the people I work with	.575	
	I feel uncomfortable when I'm unsure of what my team members think of me	.568	
	I feel inferior to most people I work with	.508	
Achievement Motivation	I believe it is important to analyse your own weaknesses	.726	
α=.769	I feel good when I have worked hard to improve my assignments	.658	
	I make a conscientious effort to get the most out of my available resources	.651	
	I do every job as thoroughly as possible	.635	
	I believe that to be successful a person must spend time planning the future	.587	
	I feel proud when I look at the results I have achieved in my university activities	.525	
	For achievement to be successful I believe it is important to use your time wisely	.508	
Non-Conformity* α=.771	I always follow accepted practices in the dealings I have with others		.763
	I rarely question the value of established procedures		.725
	I feel best about my work when I know I have followed accepted procedures		.719
	I believe that currently accepted regulations at university were established for a good reason		.703
	I believe that in order to succeed, one must conform to accepted practices		.595

#### MANOVA Analysis

The results indicate that, overall (for the five ED dimensions), there is a statistical difference between the ED of the participants based on their year of study. Based on the previous work of Florin et al. (2007) and Bolton and Lane (2012) in the United States, it would be expected that the students' entrepreneurial attitudes and traits would be greater in each progressive year of study. The mean score of all the ED dimensions increased between year 1 and year 2, and similarly between year 2 and year 3, except for the non-conformity score which decreased between year 1 and 2. This suggests that ED increases as the number of years of study increases. The results help to demonstrate concurrent validity and confirm that that the measurement instrument is valid in a UK higher education setting to accurately measure the ED level of the graduates. When gender is considered against the year of study, no statistical difference appeared between the overall scores.

#### Binary Logistic Regression

A binary logistic regression analysis was undertaken. The model produced was statistically significant<sup>3</sup> and was able to explain 20.6% (Nagelkerke R<sup>2</sup>) of the variance in employment category, a reasonable percentage, as it can be expected that many factors will affect the employability of graduates. As shown in Table Four, only Proactive Disposition and Achievement Motivation made a statistically significant contribution to predicting an increased likelihood of graduates being employed in a professional role six months after graduation<sup>4</sup>. The other three ED dimensions did not make a statistically significant contribution to predicting likelihood of employment category.

**Table 4** Binary Logistic Regression Predicting Likelihood of Employment in a Professional/ManagerialJob Role Six Month after Graduation

	Beta	S.E.	Wald	df	Sig.	Odds Ratio (Exp B)
Proactive Disposition	.644	.271	5.649	1	.017*	1.904
Preference for Innovation	.390	.280	1.937	1	.164	1.477
Self-efficacy	.309	.261	1.411	1	.235	1.363
Achievement Motivation	.674	.292	5.335	1	.021*	1.962
Non-conformity	041	.218	.035	1	.852	.960

\* Significant at a 95% Confidence Level

 $<sup>^{3}\</sup>chi^{2}$  (5, n=105) = 17.53, p < .005.

<sup>&</sup>lt;sup>4</sup> (Proactive Disposition Exp (B) 1.90; Achievement Motivation Exp (B) 1.96)

## Discussion

As existing literature shows that relationships exist between entrepreneurialism and employability, this study seeks to further research in this field by identifying which individual entrepreneurial dimensions and traits have a relationship with employability. As HEIs respond to the dual mandate of producing highly employable and entrepreneurial graduates, it is useful to know how these two fields intersect and what teaching aspects can develop entrepreneurialism and employability.

Complimentary to existing literature on entrepreneurialism and employability, this study found a relationship between two ED dimensions and employment categorization. Proactive Disposition and Achievement Motivation were statistically significant for having an influence on the likelihood of individual graduates being employed in managerial or professional employment. The Preference for Innovation, Self-Efficacy, and Non-conformity constructs were found to be statistically insignificant.

When examining the reasons behind the findings, some inferences can be drawn as to why Proactive Disposition and Achievement Motivation had a positive impact on likelihood of managerial or professional employment. A proactive attitude can help an individual to actively search out opportunities, prepare for the market, and to present and express one's abilities and competences (Kivinen et al., 2000). Proactiveness focuses on action, implementation, and making things happen, by whatever means necessary (Davis et al., 1991). Proactive behaviours can result in increased socialisation, the active elicitation of feedback, improved career management and the ability to cope with stress (Crant, 2000).

Individuals who display high achievement motivation have traditionally been characterized as willing and able to face challenges in order to acquire success. The motivation to achieve will drive an individual to set "difficult yet attainable goals, strive for performance, calculate risks, face uncertainties, and tolerate ambiguity, find novel and creative solutions for problems, and assume personal responsibility for the consequences of his/her behaviour" (Deshpandé et al., 2013). The association of the ED dimensions with increased likelihood of finding professional/managerial jobs may have as much to do with finding, working towards, and seizing opportunities in a competitive job market as it does with making the candidate more desirable to employers.

Business schools may employ teaching and learning methods that encourage individuals to behave proactively. Examples include student led approaches (Fiet, 2001) and experiential learning such as business simulations and scenarios (Avramenko, 2012; Solomon, 2008). Achievement motivation has been argued by Florin et al. (2007) to be a the most difficult entrepreneurial trait for educators to develop, yet the literature suggests that it can be encouraged by including in the curricula guest speakers who are entrepreneurs and business leaders (Dinis et al., 2013; Williams et al., 2013),

attendance at entrepreneurship and business forums (Sherman et al., 2008), business visits, realistic class exercises (Solomon, 2008), and engaging in business simulations (Avramenko, 2012).

Non-conformity, Innovativeness and self-efficacy were shown not to have a statistically significant relationship to the likelihood of a graduate attaining professional/managerial level employment six months after graduation. The non-conformity and innovativeness traits are similar in nature and some entrepreneurial literature pairs the two when deconstructing the entrepreneurial elements. The literature supports the notion that these two constructs may not aid in making a candidate employable within a traditional or managerial track of work. Entrepreneurship literature often argues that managers are more adaptive than innovative and tend to be rewarded and reward others for conformity and competence at carrying out tasks rather than innovating new ideas or taking a non-conformist approach (Buttner and Gryskiewicz, 1993; Carland and Carland, 1991; Schein, 1985).

As suggested by Teichler (2009) and Jaskiewicz et al. (2013) hiring managers choose candidates based on a number of criteria external to the applicant's qualifications, and non-conformity and innovativeness traits may create perceived distance between the applicant and the hiring manager and thus impact employability. To encourage these entrepreneurial attitudes while still working towards employability, educators may look to ensure students understand that non-conformist traits may need to be carefully conveyed, if not mollified, during entry-level employment. Educators may encourage students to accompany these attitudes with constructive ideas, as suggested by Seibert et al. (2001).

## Conclusions

This study has furthered the literature on student entrepreneurship and graduate employability by identifying two ED factors that may impact the likelihood of professional/managerial employment, as well as identifying ED factors that had no impact. As universities respond to calls for increasing graduate employability and entrepreneurialism, they also must respond to students' expectations that their 'human capital' will increase in a way that will make them more marketable after graduation in a competitive job market. The literature has shown that entrepreneurial students are equipped both with the tools for enterprise creation and with increased employability, and this study shows that some linkages exist between specific entrepreneurial traits and employment classification.

Entrepreneurial education is a developing research field and no best teaching method has been identified, with many arguing for more innovative, active, and experiential teaching methods

(Winkel, 2013; Jones and English, 2004; Gibb, 2002). The best means by which educators should approach entrepreneurship education is beyond the scope of this paper. However, by identifying the aspects of entrepreneurialism that also make a graduate more employable, more information is available for educators who are designing entrepreneurial education programs and allows for greater focus on aspects that may be of greatest benefit to all students (not just future entrepreneurs).

## **Limitations and Further Research**

While this research has found that two ED dimensions have impacted the likelihood that graduates will be employed in a managerial/professional role within a six month period, future research could further investigate whether there was additional impact based on field, industry, and firm size. In addition, repeating this study with a larger sample size to help confirm and develop the generalizability of the findings of this research. Studies on students in other university courses of study could also be considered.

Although some researchers have highlighted the difficulties in measuring employability outcomes six months after graduation (Harvey et al., 2002), this timeframe is in line with the DLHE early survey, managed by the HESA. Future research could investigate the job categories over a longer timeframe to offer further insights. For this study, the six month timeframe may well be suitable, as it ensured that a reasonable response for the questionnaires was achieved, as students may discontinue use of their university email address as time goes on.

The levels of ED measured in this study are inevitably influenced by other external factors, such as an increase in maturity, extra curricula activities, or outside work experience. However, as higher education institutions aim to prepare students for employment by developing their enterprise/entrepreneurship skills, it is the combination of influences within the university experience that helps to meet this aim.

Criticisms based on the different academic backgrounds of the graduates in employment studies, including potential advantage of some graduates from more prestigious universities (Brown and Scase, 1994; Hesketh, 2000) are addressed in this research by the use of graduates from the same institution.

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