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**The Impact of International Student Mobility on the
Development of Entrepreneurial Attitudes**

**by
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A Doctoral Thesis

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ABSTRACT

The importance attached to preparing graduates for a role on an international stage has become increasingly recognised by U.K. higher education institutions and by successive U.K. governments in recent years. At the same time, the contribution that enterprising individuals make to an economy has also gained in importance, but the answer to the question of what makes an 'enterprising individual' is still uncertain. This thesis investigates whether internationally mobile students develop or enhance certain entrepreneurial attitudes through a study or work placement period abroad and, if so, why certain attitudes may have developed or been positively enhanced by a prolonged exposure abroad. I have also considered the impact that such a sojourn has on the entrepreneurial intent and behaviour of graduates. I have followed a concurrent mixed method approach using a group of mobile students and, as a control group, students who do not undertake mobility during their degree. The results indicate that there is little difference in certain entrepreneurial attitudes between the two groups before mobility, but that the mobile students show a higher degree of (positive) change in some entrepreneurial attitudes than the non-mobile students after mobility. There are a range of factors from the international sojourn that could account for this change. The results imply that, along with other benefits of international education, an international sojourn contributes to developing potential entrepreneurial behaviour, as evidenced by the careers and activities of internationally mobile graduates.

This thesis contributes to the existing body of knowledge in the fields of international education and entrepreneurship in a number of ways. Firstly it provides more insight into the entrepreneurial behaviour of graduates who have studied abroad. Secondly, my results add to the debate about what differentiates a mobile student from a non-mobile student. Thirdly, my research findings support the assertion that student mobility brings benefits (both to an individual and to the economy) by turning anecdotal indicators and suppositions about the benefits into more concrete and substantial evidence. Fourthly, and finally, through using a mixed method approach I have extended the to-date narrow focus of much of the research into the area of student mobility to provide an atypical approach to investigating international education benefits.

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CHAPTER 1: INTRODUCTION

1.1 Research context

My interest in international higher education goes back many years. As an undergraduate student I spent one year studying in Germany and, since starting my career in higher education, I have worked in three different countries and been involved in many activities that constitute international higher education. I have therefore seen at first hand the personal and career benefits that such international involvement has brought me. Simultaneously, my academic studies, teaching and interest have been centred on the field of enterprise culture, entrepreneurship, small business development and, more pertinent for this research, on the questions surrounding 'what makes an entrepreneur?' Over the years, through working closely in both international education and in the field of entrepreneurship, my perception is that there are overlaps between the stated benefits (both tangible and intangible) that international education, in particular student mobility, produces both for and in individuals and the skills and knowledge that are thought to be precursors to entrepreneurial behaviour, such as an ability to take risks, to be open-minded and to have a resilient nature. The aim of this research is to investigate whether such overlaps occur, specifically in the development of entrepreneurial skills, as a result of one aspect of international education, that of student mobility.

I have chosen to concentrate this research on student mobility for a number of reasons: a) because, while it is a tangible activity with participants who can be counted and investigated, the benefits of this particular activity to society and to an individual, especially the longer-term benefits, are still unclear, b) because it is an activity that takes place in most U.K. universities and is open to a number of students and hence there is a population to investigate, c) because of my career interest in promoting and developing student mobility programmes and d) because of my personal interest as a graduate who undertook student mobility myself.

Both international education and entrepreneurship as fields of study have seen a rise in interest in recent years. International education (or at least one of the activities associated with it, that of student mobility) has a long history but it is only really in the last quarter of a century that academics have seriously considered what international education constitutes and entails and have started to investigate more closely what the outcomes of such activity

are. Entrepreneurship has also engendered much academic thought in the past. The rise of a more evident need for the development of enterprise in economies that are dynamic and ever-more international has led to more pronounced activity on the part of academics and policy makers, who view it as pivotal to an economy's future. There is a need to understand what the underlying causes of entrepreneurial behaviour are and to support and promote the development of business and individuals who contribute to an entrepreneurial economy.

Hence there is some research available that considers the benefits of international education, some research that reflects on the skills and knowledge required for individuals to become entrepreneurs and some research that considers how these two themes combine in terms of what career paths internationally educated students embark upon once they have graduated. There is also some anecdotal evidence to suggest the impact of mobility on producing entrepreneurial graduates. For example Fernandez (2012) interviewed 5 entrepreneurs from the United States who all attributed their entrepreneurial activity to their time spent abroad as students. My purpose is to look more closely at whether entrepreneurial aptitude in students (and consequently in graduates) could be developed by international mobility and why, and also to consider the extent to which graduates who have been exposed to international mobility are acting entrepreneurially, either in their careers and/or in their personal lives.

Before embarking on a detailed review of the literature to-date, which constitutes Chapter 2, an overview of the role of both international education and entrepreneurship in a developed economy is given below.

1.2 The role of international higher education and entrepreneurship in an economy

International higher education

The importance and relevance of international higher education to an economy is expounded in much of the literature; the inference being that international education in general and/or any one of its constituent parts, for example student or staff mobility, international student recruitment, etc., has positive outcomes, both economic and non-economic, for the benefit of the stakeholders involved. These stakeholders include, but are not limited to, the students, higher education (HE) staff, HE institutions, employers and governments.

There is evidence to show that employers rate internationally educated students because they show higher performance across a range of competencies required by the employers

(Bracht *et al.*, 2006) and also evidence to suggest that graduates who spent time abroad recognise the long-term influence that this experience has had on their career choices and paths (Dwyer, 2004), although Chieffo and Griffiths (2004) contend that there is no 'plethora' of data to show that students 'reap significant academic and personal benefits' from mobility (p165). On the other hand there is a dearth of research into the entrepreneurial behaviour of graduates, particularly those who have some international experience.

Successive U.K. governments have openly recognised both the advantages of, and the necessity for, an international influence or element to higher education and place universities at the forefront of driving internationalisation in HE. In 2009 the Higher Ambitions report from the then Labour Government (Department for Business, Innovation and Skills) stated that:

"Our universities need to be strongly committed to internationalism; attracting students from abroad; collaborating with institutions overseas; and bringing their expertise to bear on global challenges. They should instil a sense of internationalism in students by teaching European and global perspectives and encouraging language learning and study abroad" (p93).

The Wilson Review (2012), produced under the Coalition Government, reiterated the importance attached to international education:

"Universities are international organisations, not only in recruiting students from all parts of the world, but also through international research partnerships and joint venture investments overseas, often with the private sector. They are an under-utilised resource in terms of inward investment and job creation. U.K. universities attract significant research sponsorship from international companies and, whilst there are direct and positive benefits through intellectual property and job creation in universities, there is insufficient attention given to the opportunity for additional investments in the U.K. from these activities" (p3).

David Willetts (U.K. Minister of State for Universities and Science) stated in a newspaper article in January 2013:

"Choosing to learn within another culture is something to celebrate rather than condemn. First, U.K. companies need people with broad experience to compete internationally. Second, though we still have some of the best universities in the world, the world is changing....Our future as an outward-looking, trading nation open

to other cultures also relies on a constant supply of new graduates open to other cultures” (The Independent on Sunday, 2013).

Thus recent U.K. governments have articulated their positive position on the role and importance of international education, but the extent to which these good intentions are played out at university level in the U.K. clearly varies from HE institution to HE institution. A report from the Confederation of British Industry (CBI, 2013) claimed that 47% of U.K. employers are dissatisfied with the level of international cultural awareness and 55% with the lack of foreign language capability of recent graduates, implying that while the Government and universities may recognise and expound upon the importance of international education, the output from universities at least in these two areas still leaves much room for improvement.

Entrepreneurship

In the literature one of the few facts that is not disputed is the importance that entrepreneurship, however defined, plays in an economy. Beugelsdijk and Noorderhaven (2004) stated that:

“Entrepreneurial attitude is seen as an important element of a regional culture facilitating the success of regional clusters and regional economics in general” (p200).

In certain economies formalised entrepreneurship (that is to say that it operates within a legal framework and is accountable) is more prevalent than in others and therefore either a) certain nations and cultures naturally ‘produce’ more entrepreneurs than others or, more likely, b) the macro environment is conducive to entrepreneurial behaviour and activity. As Porter (1990) states:

“Invention and entrepreneurship are at the heart of national advantage. Some believe these acts are largely random: A visionary or inventor might be located in any nation, which means that the birth of a world-class industry can take place anywhere. If we accept this view, the determinants become important in developing an industry but its initial formation is a chance event. Our research shows that neither entrepreneurship nor invention is random....the determinants play a major role in locating where invention and entrepreneurship are most likely to occur in a particular industry. Demand conditions signal needs better in some locations than in others. National

factor creation mechanisms affect the pool of knowledge and talent. Supplier industries provide crucial help or are the source of new entrants. And so on” (p125).

Therefore, the demand, supply, resource and infrastructure conditions in a country play a role in the level of entrepreneurship activity in that country. In a similar vein, environmental conditions that are conducive to entrepreneurship and the existence of business opportunities include technology changes, level of economic development, demographics, politics and institutions, as well as culture (Koellinger, 2008; Arenius and Minniti, 2005).

The U.K. Government has made enterprise central to its economic policy:

“We need to take steps to encourage individuals to take more business opportunities – restore an enterprise culture in which everyone with talent is inspired to take up the challenge of turning their ideas into successful enterprises. For example, we want to do more to encourage and help the unemployed to see self-employment as a viable route off benefits and into financial independence. Our strategy for growing enterprise awareness and skills marks a step-change in government’s approach, embedding enterprise into mainstream education, skills and employment provision – through schools, further education (FE) colleges, higher education (HE) institutions and the Work Programme” (Department for Business, Innovation and Skills, 2010 p13).

Definitions of entrepreneurship and entrepreneurs abound. For example Bruyat and Julien (2000) state that for them, an entrepreneur is someone...

“...responsible for the process of creating new value (an innovation and/or a new organization) – in other words, the individual without whom the new value would not be created” (p169).

But, as we shall see, for a variety of reasons pinning down a clear cut definition is contentious. Nonetheless, even without a clear definition entrepreneurship and entrepreneurial behaviour are seen as vital components to the economic and social success of a nation.

1.3 Research rationale

From the brief outlines above, the relevance and importance of both international education and entrepreneurship to the U.K. economy is clear. In 2011-2012 over 230,000 students graduated with a first degree from a U.K. university (Higher Education Statistics Agency, 2013) and in 2011-12 over 20,000 students from the U.K. spent part of their degree studying or working outside the U.K. (Carbonell, 2013). Levie and Hart (2012) report that 20% of the working age population in the U.K. either expected to start a business in the following three years, were actively trying to start a business, or were running their own business. Putting these approximate figures together implies that 46,000 graduates (including possibly over 4,000 who have undertaken mobility) should be entrepreneurially active in the U.K. in the next few years. But is an international experience conducive to entrepreneurship and will those 4,000 graduates have gained any 'extra' entrepreneurial drive because of their mobility? This PhD investigates these questions.

1.4 Thesis structure

Chapter 1 introduces the topic, including the author's motivation and reasons for undertaking the research. It gives an overview of the two distinct yet related fields of enquiry, international education and entrepreneurship, and a justification for the importance of the research.

Chapter 2 is a review of the relevant literature concerning international education and entrepreneurship and consists of three sections. The first section reviews international education in terms of definition, relevance, outcomes and benefits, barriers to mobility and why many students are not mobile. It also covers some of the more problematic issues when investigating student mobility, including the use of student perceptions and recollections. The second section encompasses a review of the definition of entrepreneurs, personality traits and antecedent influences on entrepreneurs, the role of education and culture, entrepreneurial behaviour and attitude, plus a brief discussion of entrepreneurs in a non-business context. The final section of the chapter draws upon conclusions from the first two sections to present arguments for the connection between student mobility and the development of entrepreneurial skills and attitudes.

Based on the findings from the literature review Chapter 3 sets out the research question and sub-questions derived from this. An explanation of the reasons why these sub-questions are necessary and how they contribute to the overall investigation is given.

Chapter 4 discusses social science research in general and, more specifically, current issues in research in international education and entrepreneurship. Approaches to the research are discussed and the justification for the use of mixed methods is given. Arguments are put forward to explain the research design and data collection techniques, which are an online questionnaire and interviews, with attendant issues of reliability and validity. A clarification of the sample group and control groups is also given and the research process is outlined. This chapter also covers the ethical considerations for this research.

Chapter 5 contains the findings from the quantitative element of the research, including a discussion on the process followed for data collection (an online questionnaire), an explanation of the hypotheses applied and statistical methods used to analyse the data and a series of tables comparing the statistical findings across all the sample groups.

Chapter 6 presents and explores the results from the interviews that were carried out with 20 individuals. Twelve graduates and eight current students were interviewed to give insight into the mobility experience and hence provide qualitative data with which to complement and support the quantitative data. The graduate interviews took place during the period of quantitative data collection and the student interviews were carried out upon the students' return from abroad and after the quantitative data collection was complete.

Chapter 7 provides an in-depth analysis of the research data outcomes and discusses the implications of these. A number of general issues arising from the research process are deliberated and the findings for each separate sub-question are presented and debated.

Based on the discussion in Chapter 7, Chapter 8 presents a number of conclusions that can be drawn from my research. The limitations of this research are also included, as are areas for further study that could provide more insight into this topic. The chapter also examines the overall outcomes of the research and how these make a knowledge contribution to the fields of international education and entrepreneurship.

CHAPTER: LITERATURE REVIEW

2.1 Introduction

This chapter is split into three sections. Firstly I discuss the literature that surrounds international higher education and, in particular, student mobility. Secondly the literature on the concept of entrepreneurship, including what constitutes an entrepreneur and entrepreneurial behaviour is reviewed. Finally, I draw these two distinct areas together and look at what combines the two. In the first section concerning student mobility I have not connected this to entrepreneurship in any depth as the link between the two areas is made in the final section of this chapter.

2.2 International higher education and student mobility

Using the available literature this section considers a number of issues surrounding the concept of international education and, in particular, student mobility. It examines the relevance of study and work abroad as a component of internationalisation in higher education and as a student experience and it discusses the skills attained, developed or enhanced by students through a study or work abroad experience. Furthermore it considers how both students and employers perceive the benefits and disadvantages of mobility and what, if anything, differentiates those students who choose to study or work abroad from those students who spend their whole study period at their home institution – so-called non-mobile students. There is also a brief discussion on the extent to which current research into the phenomenon of student mobility is reliable.

2.2.1 The relevance and costs of international education

International education is a complex phenomenon. This complexity arises out of the variety of activities that contribute to the provision of an international education and hence the difficulty of pinpointing exactly what is meant by the term. A working definition for international higher education (HE) was put forward by Jane Knight (2004) as:

“The process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education” (p11).

Behind each of these terms and concepts lie more layers of complexity, but Knight's definition is one that has been widely accepted and used within the field of international education research (e.g. Teichler and Janson, 2007).

If Knight's definition sets out the framework for international education, how does the HE sector itself understand the term? What constitutes internationalisation within the HE sector and which activities take place within an HE institution that contribute to the international dimension? Kehm and Teichler (2007) discuss research being undertaken in the area of internationalisation of higher education across a range of disciplines and conclude that there are seven themes of interest:

- mobility of students and staff
- mutual influences of higher education systems on each other
- internationalisation of the substance of teaching, learning and research
- institutional strategies of internationalisation
- knowledge transfer
- cooperation and competition
- national and supranational policies as regarding the international dimension of higher education

These thematic areas include all levels of internationalisation from policy through to operational activities. De Wit (1999) points out that internationalisation within the HE sector is a process and, as a consequence, it should not be viewed merely as a selection of activities with a beginning and an end. Within this process of internationalisation many of these activities are not 'stand alone' but overlap and contribute to each other so it can be difficult to separate out particular activities as discrete for the purposes of evaluation. Nevertheless, some activities are tangible and quantifiable and the most obvious and most employed tangible activities in international HE include the recruitment of international students; student and staff exchange; international staff mobility; an international curriculum; international research collaboration; and international work experience.

Specifically related to the experience of study abroad (part of the degree spent studying at an institution in another country) some of the generally perceived benefits include providing students with a certain skill set that will help them compete for jobs in a global market. Wiers-Jenssen (2008) states:

“As for the economic rationales for student exchange, the most pronounced argument seems to be to provide the population with the skills that will allow them to compete in a global market with an increasingly educated population” (p102).

According to the literature it is not only in the development of skills for better career prospects where mobile students gain. Mears (1932, cited in Spiering and Erickson, 2006) argues the case that students who have studied in another country gain international responsibility, which changes people’s attitudes and “that in return can affect public opinion and potentially impact foreign policy”, implying that international education can have a wide-reaching impact on a nation. Mears was speaking in 1932 and obviously the world has changed a great deal since then but the wider benefits to society brought about by study abroad are still proclaimed today:

“The experience of time spent abroad in a study situation is widely seen by educators as extremely desirable to ensure that the future leaders and influencers in U.S. society have a far greater knowledge of other cultures and are more globally competent than at present” (Nunan, 2006 p2).

Although Nunan is speaking about U.S. students and society it is plausible to assume that the same thinking is prevalent in many other higher education systems as, particularly in developed countries, the overall aims of preparing students for a globalised world are the same.

The generally accepted belief is that internationalisation brings with it benefits - otherwise why would universities engage in it? The U.K. Department for Business, Innovation and Skills classifies these benefits as ‘economic’ (for example income generation, skilled workforce) and ‘influence’ (for example the development of educational and business links internationally), as well as recognising the benefits to individuals and to HE institutions (Mellors-Bourne *et al.*, 2013). According to Daley (2007) benefits occur at three levels: the national level, the institutional level and the individual level:

“Firstly (internationalisation of education) enhances the social and cultural development of the nation and contributes to the sending nation’s economy and international trade and relations...Secondly, at the institutional level international education may augment a university’s profile and reputation and be used to generate income through fee-paying students...Thirdly, it is asserted that international

education provides benefits to the individual students involved in terms of their education, foreign language proficiency and intercultural skills....” (p2).

It is questionable whether Daley’s summation includes all the benefits of international education, both tangible and intangible, but the three levels indicate that the potential impact of international education is widespread.

Internationalisation in higher education requires tangible and intangible investment on the part of stakeholders. There is on-going debate in academic circles and among practitioners within higher education about how to measure and evaluate the outcomes of international activities against that investment. Hannigan (2001) points out that people engaged in educational experiences as a whole and international education in particular need to assess and explain the outcomes to the larger academic community. The need for justification of the investment in internationalisation is also mentioned by Hudzik and Stohl (2009):

“As internationalisation requires a substantial commitment of institutional resources and often a substantial revision of practices and orientations, and perhaps an opportunity cost in some other area, knowing objectively and in measurable terms that it produces value in the intended directions becomes critical in garnering support beyond rhetoric” (p12).

Consequently it is not enough to invest in international education without justifying that investment through the outcomes and benefits it brings. The outcomes, in whatever form, can be short term (for example income generation from particular international programmes), medium term (for example the quality enhancement of education) or longer term (for example economic impact on the national / international stage). They can be, as Daley (2007) states, at individual, institutional or at (inter)national level. In addition the form that these outcomes can take include increased international prestige of the institution; income generation; employment and career enhancement for both HE staff and students; global engagement and understanding of citizenship and identity; and improved learning outcomes and academic impact such as the learning of foreign languages, cultural understanding and personal development, (various, cited in Deardorff and van Gaalen, 2012). International education, consequently, has a wide range of stakeholders, occurs across many levels and can take many forms, but only some of the benefits are tangible and directly or easily quantifiable, such as, for example, income arising from international student fees or flows of international students.

2.2.2 The mobility experience: study and work placement abroad

The phenomenon of mobility is not a new one. For centuries academics and students have been travelling from university to university to undertake courses and learn from different masters: Thomas a Becket, who studied in Paris, Bologna and Auxerre in the twelfth century, Desiderius Erasmus who studied in Paris, Leuven, England and Basel in the fifteenth century, and Sigmund Freud who studied in Vienna and Paris in the nineteenth century are some notable examples.

“Scholars, polymaths, philosophers and students wandering from one place to another throughout centuries played a key role in spreading ideas, knowledge, knowhow and civilisation.” (Gürüz, 2011, p2)

Since 1946 the Fulbright Programme has been sending students from the US abroad in order...

“...to bring a little more knowledge, a little more reason, and a little more compassion into world affairs and thereby increase the chance that nations will learn at last to live in peace and friendship” (The Fulbright Commission, 2013)

and since 1902 the Rhodes Scholarships have been bringing students to Oxford from the U.S. for periods of study. The Institute for the International Education of Students (IES) has been promoting and supporting study abroad to U.S. students since 1950 and, since 1987, the European Union's Erasmus programme has funded and supported almost three million students to spend part of their study period at another European institution (British Council, 2013a). Studying and/or carrying out a work placement abroad has a long history, but much of the research that looks into this phenomenon is of more recent heritage (see Dolby and Rahman, 2008 and de Wit, 2002 for the historical context of international education).

As stated above, there is a wide variety of activities that universities can undertake in order to fulfil an international remit. My research considers both study abroad and work placement abroad (in this research these two concepts are covered by the term 'mobile' students, meaning students who have spent part of their degree programme either working or studying abroad. Further discussion on this definition is given below). If, as Gürüz (2011) states, student mobility may be only one component of international education, but one that has the greatest socio-economic, cultural and political implications, then it follows that somehow we must be able to identify and evaluate these implications.

The terminology surrounding 'international students', 'international mobility' and 'study abroad' can be confusing. The exact requirements for study abroad differ from country to country but it entails a period of study undertaken in a foreign country usually within the parameters of a longer period of study at undergraduate or postgraduate level. The time length of this period of study can be as short as a few weeks (for example in the U.S. study abroad can mean visiting a summer school or a few weeks spent studying cultural programmes in a foreign country) or a semester or a full year. The study can be either as part of an exchange agreement with another institution, which usually means fee waivers for the students, or as a so-called visiting student, where the student pays fees to the host institution for the period of study. It can be a formal agreement between two institutions or as part of a supranational programme (for example the European Union's Erasmus programme) or it can be an informal arrangement between the student and the host institution. Study abroad normally requires students to transfer credits between their host and home institution but this is not always the case.

Similarly, work placements abroad, or internships, constitute a period of time spent by a student working in an organisation in a foreign country as part of their degree. Hannigan (2001) stated that, alongside the challenges that any work placement in the home country would entail, foreign work placement brings with it exposure...

“...to work settings that have their own unique cultural idiosyncrasies, including (1) a constant feeling of being an outsider, (2) the need to use one's personal resources more than in one's home country where it is easier to retreat to the comfort of family and friends for social and emotional support, and (3) demands of a foreign language” (p5).

These 'idiosyncrasies' are comparable to those often experienced by study abroad students. The challenges faced by such students include more than simply the process of studying and meeting academic requirements in a foreign environment. Similar to Hannigan's idiosyncrasies for foreign work placement stated above, study abroad means living abroad and immersing oneself in the day-to-day matters of living, i.e. being exposed not only to academic changes, but social, economic and cultural differences as well as incurring financial consequences. Indeed, it can be argued that it is the very challenge of 'surviving' in a strange environment that brings about many of the benefits of study abroad in terms of personal development, implying that the experience outside a classroom or lecture hall is of equal, if not more, importance when assessing the impact of study abroad and its benefits. Similarly with work experience students: it is not so much the work-place experiences which

enhance the personal development, although these contribute, but the surviving in a culturally different environment.

For the purposes of this research, 'mobility' is defined as either spending 1 or 2 semesters at a host institution as part of a degree or working in an organisation abroad. The phenomenon of 'international students', where students are registered and complete their whole period of study at a foreign institution, is also clearly included within the international activities of HE institutions. This form of internationalisation brings with it benefits for the student and generates income for the institution involved. If there are benefits in the shape of entrepreneurial development for short-term mobile students, then it could be argued that similar benefits could arise in longer-term mobile students. However, I have decided not to make these 'international students' the focus of my research as this is still a relatively new phenomenon in the U.K. – that of U.K. students studying for their entire degree abroad - and there are currently not high numbers of U.K. students compared to non-U.K. students who undertake this and therefore it would be problematic to find a relevant sample group. It is clear that the U.K. sends the lowest number of students to undertake study or work abroad compared to its European counterparts, Germany, France, Spain and Italy but the numbers are growing (Carbonell, 2013) and are recorded (at institutional, national or European level) hence finding sample groups is more straightforward. The reasons why fewer U.K. students are mobile are discussed later in this research but do include, in many cases, the lack of support and promotion at institutional level. Another reason for concentrating my research on the mobile students and not international students is that, because mobility as defined above requires less time and, in many cases, less financial investment for students, it is a much more viable option for students to gain an international experience, once the benefits of such sojourns are proven, clear and are visibly promoted and articulated at both institutional level and governmental level.

Whatever the discussion and debate surrounding the benefits or costs of mobility there is no doubt that it, as an activity, remains popular among students. According to the Institute of International Education Open Doors Report (2012) in the 2010/11 academic year, 273,996 American students studied abroad for academic credit, an increase of 1% over the previous year and an increase which built on decades of steady growth. In Europe, 231,408 students took up an Erasmus place in 2010/11, an increase of 8.5% on the previous year (European Commission, 2012) and, despite the low numbers, it is a growing trend among U.K. students too (Carbonell, 2013). For whatever reason, many students are clearly interested in the opportunity to study or work in another country as part of their degree programme.

2.2.3 Benefits of student mobility

The difficulty of measuring outcomes has already been mentioned and is a main theme in this thesis. Certainly when considering the career paths of individuals much of the current research concentrates on a fairly limited set of outcomes, focussing on first labour market destination for graduates and using outcome indicators such as starting salary, field of employment, position in organisation, etc. as measures (Cuthbert *et al.*, 2008)

Widening the discussion to include other issues than just career paths, other studies into student mobility have set out criteria against which to measure outcomes. Central to many of these studies is the measurement of student change or personal development as a result of an international experience. One particular benefit of a period abroad that is often mentioned in the literature is that of intercultural competence, or its derivatives such as intercultural communication skills and intercultural sensitivity (e.g. Teichler and Janson, 2007; Nunan, 2006; Spiering and Erickson, 2006; Rundstrom Williams, 2005). Defining intercultural competence is problematic due to the apparent lack of agreement among scholars as to what knowledge or behaviour constitutes intercultural competence, how the concept can be assessed or measured, and how an understanding of the topic can be skewed by particular (e.g. Western) perspectives and frames of reference. Deardorff (2006) attempted to pin down the concept through her work with university administrators and acknowledged experts in the field of intercultural studies and spoke of attitude, knowledge and comprehension; internal outcomes (e.g. informed frame of reference shift by an individual); and external outcomes (e.g. appropriate behaviour and communication in an intercultural situation). Her definition of intercultural competence as...

“...the ability to communicate effectively and appropriately in intercultural situations based on one’s intercultural knowledge, skills and attitudes” (p247)

combined with “the understanding of others’ world views” (taken from Deardorff’s study with intercultural scholars) could still be considered vague, but it does give an indication of the intercultural benefits that could arise from study or work abroad. Interestingly, Daley (2007) discusses intercultural competencies which she cites as frequently quoted in the literature and which she contends are present *before* a student goes abroad. These are: cultural empathy; open-mindedness; flexibility; and social initiative and self-efficacy. According to Daley the possession of these competencies influences the mobility decision, the successful functioning in a foreign country and also the level of satisfaction about the experience that a student will feel upon returning from abroad. The argument would seem to be that a period

abroad can enhance intercultural competence but that students who undertake mobility would normally exhibit a level of this even before mobility.

The employer perspective

The purpose of this research is to investigate if a mobility experience impacts upon the development of entrepreneurial skills in students and if this then influences their entrepreneurial behaviour and/or intent in their careers. The entrepreneurial behaviour could be in the form of setting up and running a business, acting entrepreneurially in a business or acting entrepreneurially in another non-business related aspect of life. This latter point will be examined in more detail in Section 2.3.12. As discussed in Section 2.3.2, 'entrepreneurship' and 'entrepreneurial behaviour' are terms usually associated with the business world and it is therefore relevant to consider how employers view the contribution that a foreign experience has on both potential and existing employees, i.e. do employers consider that a period abroad enhances certain skills (which may or may not be considered entrepreneurial) that are beneficial to an organisation? Is there a premium attached to employing someone who has this experience over someone who doesn't?

Investigating a possible connection between an individual's entrepreneurial contribution to society and a mobility experience implies the need to recognise three potential career routes for graduates with an international mobility experience. Firstly, there are those graduates who follow the generally accepted definition of entrepreneurial behaviour by setting up, managing and developing their own business. Secondly, there are those graduates who do not set up and run their own business but who act intrapreneurially (defined as a person who uses the approach of an entrepreneur within an organizational setting: Bloomsbury, 2007). Thirdly, some individuals make an entrepreneurial contribution to society in a wider sense. These are much more testing to recognise as such activities are not normally measured using the standard business measures of profit and growth. For example, a cultural entrepreneur is an individual who is entrepreneurial in the realization of cultural values (Klamer, 2011) or who works entrepreneurially to overcome barriers in the cultural sector (Konrad, 2013). Similar entrepreneurial behaviour can equally be found in other sectors of society, such as charities, in the public sector (Cromie, 2000), in universities, or sciences, or in social enterprises (Hjorth, 2013). There is, however, scant literature available on the entrepreneurial behaviour of mobile graduates. The majority of literature on the career paths of mobile graduates tends to focus on, as stated by Cuthbert *et al.* (2008), their journey into employment within an organisation, as opposed to any of the three entrepreneurial categories listed above.

There is evidence to suggest that students with an international experience take up careers in an international environment and that mobile students are likely to spend either part of their working life abroad and/or be working in companies which have an international presence and/or be working on international assignments. For example, Teichler and Janson (2007) report that 18% of former Erasmus students worked for some time in a country other than that from which they graduated, compared to 3% of non-mobile Europeans. Wiers-Jenssen (2011) confirms this tendency in her research. Using Norwegian students she considers the background and early careers of graduates (either with an international element or without in their degrees) and the impact that this can have on labour market outcomes. She concludes that mobile students are more likely to work in international careers compared to non-mobile students and that study abroad as well as prior experience of living abroad (and to some extent a high educational level of the parents) can have a positive impact on the decision to take up an international job. However, she cannot conclude from her research that study abroad itself enhances career prospects, and as her research is based on Norwegian students, who traditionally have been more mobile, both degree-seeking and in short-term mobility, than many other European students it is not so surprising that a large proportion of Norwegian students go on to international careers.

While there is evidence of the international career choice of mobile graduates, there appears to be little in the literature on the specific skill use of mobile students, i.e. how students are employing these skills in their careers/life. The fact that international careers are an option for mobile students would indicate that employers recognise that this experience could have an impact on the ability of mobile graduates to be effective in an international environment. A number of studies have been undertaken to investigate the views of employers on mobile students (e.g. Nunan, 2006; Messer and Wolter, 2005) and Orahod *et al.* (2004) infer that such studies show that employers see study abroad as of value in that the experience helps to develop highly desirable skills for career advancement. Certain skills are highlighted in the literature, for example an Australian report on employers' attitudes to study abroad talked of 'well-roundedness' (Queensland Government, 2006) and Bracht *et al.* (2006) found that employers believed that graduates with international experience...

“...have clearly higher competences than those without international experience. International experience notably seems to reinforce adaptability, initiative, the ability to plan and assertiveness” (p8).

In the U.K. the Wilson Review (2012) stated:

“In the context of market globalisation, the skills of multicultural awareness feature strongly in employers’ requirements; a survey by the AGR placed a premium on the possession of ‘cultural sensitivity’ with 75% of multinational companies valuing international study or work experience as an important way of developing employability skills. However, it is not foreign language skills that make students with such experience attractive nor is their attractiveness confined to multinationals. The experience is seen as an excellent way of developing wider employability competencies such as the ability to adapt to changing situations, understanding cultural difference in the workplace and gaining new knowledge from different experiences. One of the key attributes developed by the European Union’s Erasmus study abroad students and recognised by all stakeholders (students, academics and employers) is an increased level of ‘maturity and personal development’ (p48).

Murray (1999, cited in Orahood *et al.*, 2004) looked into selection criteria for global companies. He found three criteria that are used: intellectual ability, motivation and interpersonal skills (which includes open-mindedness and respect for other cultures). He also envisaged five selection criteria for the future, three of which are internationally oriented:

“These include a multicultural criterion, defined as a global understanding or mindset... [he] defined a second criterion, diversity, as the ability...to possess an understanding of cultural differences and different ways of thinking. A third criterion, innovation, is the ability to find new solutions and new ways of operating...” (p120).

A similar set of criteria required for global managers and executives emerges from research undertaken by Covey (1997, cited in Guest *et al.*, 2006) and Stanek (2000, also in Guest *et al.*, 2006), who list open-mindedness, curiosity and respect for diversity, resilience, flexibility, being non-judgemental and extroversion as important in working in international teams. Guest *et al.* (2006) assert that...

“...these are precisely the qualities that make a good candidate for exchange and the characteristics that emerge during a successful exchange” (p380).

Trooboff *et al.* (2007) looked at the attitudes of employers towards study abroad, using both senior managers and the human resource departments in organisations (those involved in the hiring process). The study asked questions concerning the value of international educational experiences, the value of different types of mobility (primarily based on length

and on type of mobility) and the perceived personal qualities and skills that employers look for. Three noteworthy results arise from this study. Firstly, employers rated skills and qualities that are argued to be enhanced by mobility, such as flexibility, working effectively outside one's comfort zone, etc., highly although in the interview process itself the issue of what students had experienced and gained from mobility was often not considered. The inference here is that while the employers stated the importance of mobility, in reality and in the process of hiring someone it was either deemed irrelevant by the employers or employers found other ways to assess the value of mobility rather than through the interview process. Secondly, the employers stated that the longer the mobility abroad, the more value they felt it brought to the student (the issue of length of time spent abroad and consequences of this for personal development is examined in more detail in Section 2.3.6). Thirdly, and probably not surprisingly, employers were interested in experiential learning abroad, particularly in work placement abroad. This study provides support for the assumption that employers do value the mobility experience, although there are a number of issues such as length of time spent abroad, type of experience, etc. that would appear to impact on how much the experience is valued.

Although some employers do see the benefits gained from a period abroad there are dissenters from this view. The Queensland Government study (2006) indicated that employers in international or multinational firms looked more favourably on an international study experience than other types of firms and also gave examples of employers who felt that mobility would only be useful if it had occurred within a particular (relevant) industry sector, thus implying that mobility is only relevant for careers in an international environment and if it were work-based mobility. The study also mentioned that one of the perceived drawbacks of student mobility by employers is that of making graduates restless in the workplace so that their tenure at a particular company might not last long. This shorter tenure in the workplace is supported by evidence from Bracht *et al.* (2006) who found that former Erasmus students on average changed their first employment after less than three years – a much more common occurrence with mobile students than with non-mobile ones. Garam (2005), in a study on the relevance of student mobility to work and employment, interviewed Finnish employers and found that in some cases the international experience was viewed by them as a sign of restlessness and an inability (on the part of the student) to settle down. Rundstrom Williams (2005) however, argues that this restlessness fits in well with...

“...today’s capricious job market, one where (students) can be expected to change careers – not jobs – six times in their life and will retire from jobs that do not presently even exist” (p357).

In her view this restlessness is to be valued, rather than seen as a disadvantage for mobile students, as the upheaval of mobility itself can help students prepare for the need to be mobile in their jobs in the future.

The student perspective

Students undertake mobility for the experience, to learn or improve a language, to gain academic credit, to gain practical experience and for c.v. building. These are perhaps the five most prominent reasons for mobility. However, this list is not exhaustive and underneath each of these 5 ‘headings’ lie a number of other reasons why mobile students believe that mobility is beneficial.

Intercultural competences, including intercultural communication, as a benefit from mobility was considered in Section 2.2.3. Based on the idea that many employers now seek communication skills as one of their priority skills, Rundstrom Williams (2005) investigated whether study abroad helped students to develop the communication skills needed for a career in an international environment. Her study uses an experimental group (students studying abroad for 4 months) and a control group (campus based students) and is based on questionnaires sent both pre- and post-test. Her results indicate firstly that students who studied abroad showed a greater increase in intercultural communication skills than students who did not study abroad (cf Daley, 2007) and secondly that the study abroad students had a higher level of intercultural communication skills both at the beginning and at the end of the test period.

Rundstrom Williams is relatively self-critical of her study, recognising that her sample groups were small and that she used a broad scope of study programmes for her study. This latter point is, in my view, particularly pertinent as a weakness in the study: almost all the students who studied abroad were communication majors, whereas the control group consisted of business, English and other major students. Rundstrom Williams does highlight the differences in these two groups in her results but does not draw any conclusions in her discussion from this. It would seem obvious that communication students would score more highly than others before the test and that they would be in a better position to improve their communication skills through study abroad. Nevertheless, this study is interesting firstly because it indicates that the mobility experience engendered a positive change in students,

secondly because it is a longitudinal study and thirdly because it uses a control group as a comparison – all issues that are relevant for my research.

Orahood *et al.* (2004) considered the impact of study abroad on the career goals of business students. They collected data from both business and non-business students at one American university using a questionnaire, which contained both closed and open questions and statements. The qualitative data from the questionnaire (the open questions) consisted of self-reflections by the students, and not surprisingly (in my view) the mobile business students expressed a greater interest in a career in some form in the international environment than the non-mobile business students.

The authors list the benefits that students, retrospectively, believed they had gained through a study abroad period. Students did not specifically mention ‘entrepreneurial development’ as a benefit, but the list includes some skills which, as will be argued later, are strongly linked to the propensity to act entrepreneurially. The skills include foreign language proficiency; enhanced cultural awareness and sensitivity to customs and cultural differences; ability to work in cross-cultural teams and function in ambiguous environments; increased confidence, initiative and independence; greater flexibility and adaptability; ability to maintain an open mind and be tolerant of others; problem-solving; and crisis management skills. Although this study is based on only one university (and therefore it could be contentious to apply the conclusions to business students as a whole) one conclusion that the authors arrive at that is generally applicable is the need for students to be able to clearly articulate the learning outcomes of the mobile experience to employers.

In a later study (Orahood *et al.*, 2008) the authors revisited the topic of career goals, but this time considered business graduates in the workplace to see if they were working in international fields. In contrast to the earlier finding that mobile students were more interested in an international career, the authors found that the number of non-mobile students who subsequently found employment in the international arena was higher than for the mobile students. The authors list a number of reasons for this, including the fact that business students should have an international outlook anyway and therefore mobility does not play such a large role in determining an international career, but this does not explain why, then, in the previous study the mobile students were more internationally oriented in terms of career goals. As a result Orahood *et al.* conclude that the mobility experience would then appear to have a greater impact on personal growth and development than on the actual careers that students undertake.

Nunan (2006) considers the long term effects of the student exchange experience. Her research is based on responses from graduates, who retrospectively stated that they had higher levels of tolerance for ambiguity, increased independence and confidence, higher creative and problem-solving skills as a consequence of mobility, all skills that are linked to entrepreneurship. Her research investigates the longer term effects of mobility by questioning graduates from one Australian university, all of whom had completed their mobility between 10 – 15 years earlier. It is difficult to judge what is an ideal time lapse between the mobility experience and assessing the benefits: van Hoof and Verbeeten (2005) and Dwyer (2004) imply that too soon after mobility means that students have not had time to assimilate and experience the benefits. Carrying out the assessment sometime after mobility could lead to imprecise recollections and/or a difficulty in isolating benefits that arose specifically because of mobility – an issue that could arise in Nunan’s research. The majority of graduates in this research reported that their study abroad experience had been a positive one and that it had enhanced their overall employability but these results are based on self-reporting and hence subjective. Despite this critique, Nunan’s study is important because it does endeavour to focus on the longer term impact of the mobility experience – one of the few studies to do so.

Van Hoof and Verbeeten (2005) argue that it is...

“...difficult for students [upon returning from study abroad] to assess the relevance of the international experience on future job opportunities and their own personal development accurately” (p49)

the inference being that it takes time for students to recognise the value of their experience (thus Nunan’s 10 – 15 years could be appropriate). They do, however, include in their study of returning students the very positive feedback given by 90% of students in terms of their own personal development, which the students attributed to their study abroad period. Their article describes the process and results of research into student opinions of studying abroad, the perceived value of this for their personal and career development and how the results related to generally held ‘truths’ about the benefits of study abroad found in the literature. The research used students who had studied at one U.S. university, both those who had gone there as study abroad students and, the majority, students who had gone from there to study abroad for a period of time. The sample is not based on chance but is a convenience sample, based mainly on its accessibility for the researchers.

The authors acknowledge certain limitations of this study; these include the small sample size and the origin of the sample (i.e. how the students all came from the same university) but fail to list other limitations such as the general nature of the questionnaire used, which did not allow students the opportunity to expand upon comments and issues. The authors could perhaps have carried out more extensive research through the use of one-to-one interviews or focus groups. This would have allowed for more probing questions to be asked and follow-up / clarifications to be gained. Alternatively (or as well as), the authors could have looked for a sample of students who had graduated a few years previously and who had been in employment for some time. Students would have had time to reflect on their study abroad experience and its real influence on their lives and this would have put them in a position to place this particular aspect of their whole study in context.

The conclusions drawn by van Hoof and Verbeeten are appropriate but the questions they ask are not profound, the analysis is not profound and therefore the conclusions are not profound. The results support and adhere to existing knowledge but it is doubtful to what extent they make a major or even minor contribution to the existing body of knowledge. What does arise from this research is the acknowledgement from the authors of the need for a more structured and systematic approach to research in the field of international higher education and the realisation that there are a range of issues arising from this study that could, and should, be investigated further in order to reach a better understanding of what precisely students gain from their study abroad experience.

Messer and Wolter (2005) argued that in their home country, Switzerland, an exchange programme often prolonged the total period of study for a student. As such, the researchers were interested in the increased value of this experience for the student. They investigated the returns from exchange programmes in terms of starting salary upon first employment and the likelihood of mobile students going on to do postgraduate work (their argument for choosing the latter criterion being that such students have enhanced human capital, wider experience and a more extensive network making them, in the researchers' view, interesting candidates for research work). Their conclusions would initially seem to negate the value of study abroad, certainly in terms of these two factors, as they state...

“...the advantages that these graduates (mobile students) have in the labor market and their subsequent or academic career are simply attributable to the better capabilities of these graduates and not to the fact that they had studied in an exchange program” (p17).

Messer and Wolter reach this conclusion by comparing mobile with non-mobile students, using a control group. They do, however, admit that their study did not consider other benefits that students may have derived from the exchange experience, and perhaps it is these other benefits, rather than the mobile students having 'better capabilities', that could account for their subsequent career paths. This does beg the question of whether students who undertake study abroad have different (better?) qualities anyway than those who do not participate in exchange programmes but the study provides little evidence to support such a statement. The study also does not make a distinction between internal and external mobility (internal mobility being defined as exchanges with other Swiss universities) in their analysis of results as the authors' argue that there was no meaningful difference in their empirical analysis of these two types of mobility. This would seem a naive approach to take as students who undertake external mobility are subject to a much wider range of cultural experiences than is the case for internal mobility, all of which could impact on how students develop and on their subsequent career choices.

Teichler and Janson's study of the Erasmus programme (2007) found that former Erasmus students stated they had improved in foreign language proficiency, in understanding other cultures and in getting along with people from other cultures, but that they did not feel that study abroad had particularly advantaged them in working independently, in adaptability and in general communication skills. However, the study does not tell us much about the methods used in it and hence how these findings were arrived at. These are the students' perceptions – perhaps they were judging themselves against other internationally experienced students and not against non-mobile students and hence their relatively negative perspective. This study also concluded that the majority of Erasmus students felt that their international experience had been helpful in finding employment after graduation, which concurs with Nunan's research discussed above and with that of Dwyer (2004).

As student mobility as an area of research is relatively new, most of the results/conclusions drawn are based on either students' perceptions shortly after their return from their international experience (and thus not yet in employment) or within a few years of graduation. Dwyer's (2004) study is unusual in that it looks at the impact of study abroad over a much longer period. Using data from the Institute for the International Education of Students (IES) Dwyer was able to study the outcomes of study abroad on students over a period of 50 years. Overall the results of this study suggest that a) students who spend the longest time abroad seem to be more aware of, and more positive about, the impact of the experience, which ties in with the research results from Trooboff *et al.*, (2007) mentioned above, b) that those students who had spent at least one year abroad were twice as likely to

have then studied at postgraduate level and to have gained a PhD, compared to those who did not study abroad and c) that the positive impacts of study abroad on a person's life and career are sustainable over a long period of time:

“This study shows that study abroad has a significant impact on students in the areas of continued language use, academic attainment measures, intercultural and personal development and career choices. Most importantly, the study illustrates that this impact can be sustained over a period as long as 50 years” (p161).

Students also mention the out-of-classroom learning experience as a major benefit of an exchange programme. This means that while the actual academic process is important, the personal and social development is also viewed as equally, if not more, relevant. Peterson (2002), in a review of models of experiential education, implies that most of the learning and acquired benefits from a period abroad actually either stem from, or are reinforced by, the out-of-classroom experience.

In Chieffo and Griffiths' study (2004) on student attitudes after short-term exchanges of approximately one month duration, students stated knowledge of another country, tolerance, patience, understanding, language and communication as among the major benefits they experienced. While this study does use control groups (non-mobile students) and investigates students from a wide variety of academic disciplines, it is based on students' self-perceived and self-reported outcomes of study abroad and not actual outcomes. The results clearly show that mobile students who had spent one month abroad were more confident in their levels of intercultural awareness and functional knowledge than their non-mobile peers. However, whether this confidence is directly attributable to the mobility experience is questionable as the authors provide no comparison with the control group before mobility. It could be that the mobile students were more confident in these aspects anyway and that mobility had little or no impact. Nevertheless, Chieffo and Griffiths conclude from this that even short term exchanges yield...

“...significant self-perceived impacts on students' intellectual and personal lives” (p174).

Interestingly, Teichler and Janson (2007) put forward the point that the professional value of an Erasmus experience would seem to be less today than in earlier years. Their justification for this is firstly that the type of experience offered through the Erasmus programme is more widely available these days either through Erasmus and/or through other forms of study

abroad and more students are involved so the relative advantage of having studied abroad is diluted because there are more students with that experience; and secondly that the number of jobs which involve an international element has grown more slowly than the number of graduates with international experience. In an increasingly globalised working environment this second reason would, on the surface, appear dubious and therefore perhaps a further explanation is that not only are more students undertaking study abroad but that most U.K. universities offer some form of international curricula or other international educational experience so that there are now more graduates who have some form of international skill set in the job market. One further point made by Teichler and Janson regarding the careers of former Erasmus students after graduation is that 2 out of 5 of them go on to advanced study, either straight after graduation or some years later. According to Teichler and Janson, this is twice as many as European graduates as a whole. This finding concurs with those of Dwyer (2004) mentioned above about the high levels of mobile students undertaking further study or PhDs, with the higher than average levels of participation in graduate education by mobile students as found by Fry *et al.* (2009) in their report on the transformative power of study abroad and also with Messer and Wolter's findings on the academic achievement of mobile students.

2.2.4 Differences between mobile and non-mobile students

When attempting to measure outcomes it is necessary to consider not only how students who undertake a period abroad change or develop because of the process (input and output comparisons) but also to give some thought as to how students who undertake mobility differ from those who don't, i.e. the non-mobile students. In most universities students make a conscious choice to spend time abroad (it is not forced upon them) and therefore is there a particular type of student who voluntarily undergoes the experience? The discussion so far has touched on some of the aspects that could be considered in relation to the difference between mobile and non-mobile students, for example the academic ability of mobile students, the type and length of employment carried out by mobile students upon graduation and the issue of further study, but these issues now need to be discussed in greater depth.

Messer and Wolter (2005) raised the issue of whether mobile students had better capabilities than non-mobile students and that is why such students reaped the benefits of study abroad. They state that study abroad students tend to be more able than non-mobile students, the inference being more academically able. A Higher Education Funding Council for England report (HEFCE 2009) points to the fact that study abroad students had higher than average entry qualifications and (therefore, not surprisingly) the high rate of Erasmus

students from the U.K. who graduate with a first or an upper second-class degree. Hadis (2005) talks of the selection criteria for study abroad imposed by many universities, including a relatively high grade point average, indicating that mobile students do have a high level of academic ability (but not necessarily higher than non-mobile). Hadis argues further, however, that while grade point average may be an indicator for a student's academic achievement before they undertake study abroad, it is an inaccurate measure of a positive outcome of study abroad. This is because a) different grading systems in other countries can skew grades both upwards and downwards and b) mobile students' priorities can move due to study abroad, i.e. they become less concerned with their grades due to the other 'distractions' of studying in another environment. The implication is that mobile students are academically more able than non-mobile students, at least before mobility, but I do not think that there is enough evidence to state that this is the case. I would be hesitant to conclude that academic ability and academic achievement are determining factors between mobile and non-mobile students, despite the findings of the HEFCE report that mobile students achieve high degree classifications.

The issue of personality could shape the extent to which particular students view the opportunity of a period abroad positively; why they choose to undertake it, how they cope with the experience and also how they ultimately benefit from the experience. Certain personality issues in relation to entrepreneurial behaviour are discussed in more detail further on in this chapter but at this point a brief overview of what evidence there is to suggest that personal characteristics differentiate between mobile and non-mobile students is given.

Bakalis and Joiner (2004) compared both mobile and non-mobile students when they investigated tolerance of ambiguity and openness as pre-requisite personality traits for study abroad. Openness was defined as the willingness to take risks, being open to a wide range of stimuli and having broad interests, while students with a high tolerance of ambiguity would be...

“...receptive to a tertiary exchange program because the program would be viewed as exciting, energising and, overall, a positive experience.” (p288)

The study used a relatively small sample (31 returned questionnaires) but did use a control group of non-mobile students. Despite the small sample the authors used both qualitative and quantitative analysis on the data in order to support the findings. The conclusions drawn were that these two personality traits (openness and tolerance of ambiguity) were more

evident in the mobile students than in the non-mobile students, but once again there was no comparison made 'before' and 'after' mobility – the questionnaire was carried out upon return of the mobile students so it could be argued that the mobile students were more open and tolerant as a result of their mobility and not that their openness and tolerance contributed to their mobility decision.

McLeod and Wainwright use Social Learning Theory (Rotter 1954 and 1982, cited in McLeod and Wainwright, 2009) to research the study abroad experience. This theory states that human behaviour can be predicted by two general factors: a) the expectancy that if a person behaves in a certain way they will be rewarded and b) how much the person values the reward they would receive. A particularly important expectancy is locus of control, i.e. the extent to which an individual believes they are in control of their fate. Using 59 mobile students split into five focus groups across two countries (three groups in a Scottish university and two groups in a Parisian university) McLeod and Wainwright found that those student who had a positive mobility experience had increased confidence in their ability to control their environment (compared to those who had had a less positive experience). They thus argue that students who have a high internal locus of control (a strong belief in their own ability to control their destiny) do better in unstructured and ambiguous situations, e.g. a study abroad experience. Students obviously bring their locus of control to their study or work abroad experience and the more confident students were in their ability to control their environment the more positive their experience of study abroad was. Students who had external loci of control were less likely to choose to place themselves in unstructured situations and were therefore less likely to be mobile.

Goldstein and Kim (2006) undertook a longitudinal study of undergraduates across the four years of their programme, including data from pre-study abroad students, data from the same students post-study abroad and also from non-mobile students. They were interested in identifying variables that could predict participation in study abroad and hence investigated personal characteristics as well as academic and demographic variables. The results indicate that students who score highly for ethnocentrism and for prejudice are less likely to be mobile. This conclusion is hardly surprising: what is more surprising from the study is that the authors found little evidence to suggest that mobile and non-mobile students differ in their expectations of how study abroad would be viewed by future employers, implying that non-mobile students did not feel that they would be adversely affected in their search for employment by the fact that they did not study or work abroad.

Rundstrom Williams (2005) also considers how hard it is to compare two groups of students, with the argument that because study abroad is voluntary, students who opt for mobility will probably...

“...have demonstrated an interest in learning about other cultures and will already have a high degree of adaptability, sensitivity, and intercultural awareness in comparison to their peers who choose not to study abroad” (p362).

As mentioned earlier, Rundstrom Williams is particularly interested in the extent to which intercultural communication skills are developed through mobility and concludes from her research on mobile and non-mobile students that it is the study abroad experience that most enhances this particular skill in the mobile group of students. Dwyer (2004) found that mobile students sought out a greater diversity of friends. She raised the issue of whether this means that study abroad promotes greater racial, ethnic and cultural tolerance or whether the students who undertake study abroad are more tolerant anyway. She gives no definitive answer for this but Goldstein and Kim's research (2006) indicates that mobile students are less ethnocentric and less prejudicial than non-mobile students and consequently are likely to have a more diverse friendship group.

The reasons why some students actively seek mobility opportunities are manifold: their personality may be the defining factor (the presence of tolerance of ambiguity, internal locus of control, lack of ethnocentricity, etc.), they may wish to improve their language skills, they may wish for an international career and see this international experience as a stepping stone towards that, or they may subconsciously wish to improve any number of skills outlined above. I use the term 'subconsciously' because I assume that very few students would be as explicit or as subtle in their decision making as to consciously choose to go abroad because it is likely to aid their problem-solving skills or their tolerance, etc. and to express their objectives from mobility in such terms. For example, in a survey of U.K. students about potential overseas study, the Broadening Horizons report (British Council, 2013b) found that, alongside academic drivers such as improvement to language skills and gaining credits the range of other potential benefits listed by students considering overseas study included the following: the desire to have a unique adventure; the desire to travel overseas, a first step towards an international career; better employment prospects post-study and, more personally, to build confidence and to become self-sufficient. This lack of nuanced or explicit reasoning for mobility has implications when trying to assess the objectives, as it is necessary to delve below the surface of generalised statements such as

‘opportunity to learn about a new country’ to see what a student actually achieves, tangibly and intangibly, through ‘learning about a new country’.

But what about those students who opt not to spend time abroad during their studies? I contend that there is little evidence to suggest that this is because they do not feel academically capable, but the research by Bakalis and Joiner (2004), Goldstein and Kim (2006), and McLeod and Wainwright (2009) would suggest that they differ from mobile students personality-wise. There are also other ‘barriers’ to mobility that inhibit students from taking the mobile decision and these are discussed below.

2.2.5 Barriers to mobility

In the ‘International Student Mobility’ report (Sussex Centre for Migration, 2004) the authors make some generalizations from the interviews they held with HE staff in the U.K. concerning the reasons why students do not choose the mobility option. Four categories of reason are given:

- financial problems
- language barriers
- national and institutional constraints or obstacles
- student attitudes

Other categories of barriers examined in this section are that of academic discipline and the socio-economic status of the students as these are also discussed in the literature.

Financial problems

The research carried out by Doyle *et al.* (2010) into New Zealand participation in study abroad discussed obstacles to mobility, including finance and a lack of ‘comprehensive, integrated institutional approach to internationalization by universities’. Woolf (2012) mentions finance (specifically in terms of how universities in the U.K. are funded), the structure of U.K. higher education, credit accumulation and transfer and languages as the main barriers to student mobility in the U.K.

Financial problems at an individual level involve not only a lack of money to undertake mobility but also fear of future indebtedness and the loss of student part-time jobs (which help students with the financial costs of studying). The issue of finance as a deterrent for mobility and possible connections to the socio-economic status of the students is considered

by the authors of the International Student Mobility (ISM, Sussex Centre for Migration, 2004) report and also by Daley (2007), who infers that study abroad appears to be an option mainly for those whose socio-economic background gives them a certain financial stability.

Language barriers

Learning or improving language capability is an obvious and oft mentioned reason for studying abroad and indeed Goldstein and Kim (2006) found that students who had an interest in learning another language were more likely to study abroad (although they couldn't show that there was a difference in foreign language competence between mobile and non-mobile students). The extent to which the U.K. education system has supported the development of language learning at all levels of education in recent years is questionable, indeed Woolf (2012) calls the failure of U.K. HE institutions to teach other languages effectively 'lamentable', and so U.K. students tend to be at a disadvantage when it comes to choosing to study in non-English speaking countries. Although it doesn't refer directly to language competence, the Wilson Review (2012) does state that, while the U.K. is second only to the U.S. in terms of receiving international students, it is ranked 34th internationally for degree mobility and also states that the number of U.K. students undertaking an Erasmus work placement abroad is below half that of France and Germany. The ISM report (Sussex Centre for Migration, 2004) talks about foreign language competency as sometimes being a barrier to mobility, i.e. a lack of knowledge, confidence or ability in a second language leads U.K. students away from the mobility route.

National and institutional constraints or obstacles

Institutional and academic constraints include how flexible, pro-active and supportive a home institution is towards mobility, the discipline studied (some disciplines 'travel' more easily than others), the recognition of study abroad credits or a work placement at the home institution and the promotion of opportunities by the HE institution. Once again, the inference within the ISM report (Sussex Centre for Migration, 2004) is that the U.K. HE sector as a whole is not supportive of mobility, partially because of the rigid nature of many U.K. degrees and the perceived difficulty of quality assurance in the mobility experience. The Broadening Horizons report (British Council, 2013b) found that...

“...the biggest barrier (to studying abroad) was the absence of information on the possible sources of funding, government scholarship programmes, the level of foreign language ability needed to study in some destinations and how to begin the process of applying to study overseas” (p19).

Woolf (2012) states:

“In an increasingly globalized labor market, universities in the United Kingdom are doing very little indeed to create opportunities for their home students and that is a shameful neglect of intellectual responsibility” (p60).

In many cases it would appear that a U.K. student who wishes to undertake mobility has to overcome a number of tangible and intangible barriers in order to do so. An interesting research question would be to what extent the overcoming of such barriers could be considered as a potential indicator of entrepreneurial tendency in an individual as individuals may need to display a certain level of determination, motivation and perseverance and often be willing to overcome adversity, even before they embark on mobility.

Academic discipline

With regards to academic discipline, study and work abroad students can come from a variety of disciplines, although as stated above, some disciplines transfer more easily than others into other study programmes (e.g. medical and education students are sometimes constrained in mobility by national and/or professional requirements). A report into the current state of mobility in the U.K. (Carbonell, 2013) found that 42% of U.K. Erasmus students were from the field of Languages, 15% from Business and 8% from the Social Sciences and 7% each from Art and Design and Law. Disciplines displaying very low levels of mobility included Agriculture, Education and Health (Medicine, Nursing, etc.). Work placement students often come from the business and management fields (Presley *et al.*, 2010) but Language students (working as language assistants abroad) also constitute a large portion of U.K. work placement mobility (Carbonell, 2013). Accordingly, some academic disciplines are more conducive for mobility than others.

Student attitudes to mobility

With regards to student attitudes, the ISM report (Sussex Centre for Migration, 2004) points out that:

“This is a nebulous area which covers a variety of explicit or nuanced feelings to do with lack of confidence, attachedness to home, fear about the unknown, worries over the academic impact of studying abroad and so on” (p33).

Daley (2007) also includes relationships with family, friends or partners in this list. The Broadening Horizons report (British Council, 2013b) found that 35% of the sample of U.K.

students who were considering overseas study viewed leaving their friends and family as a main concern. However, a much lower percentage of those students surveyed who were not considering overseas study listed this particular concern as a deterrent to their mobility. The main deterrents for this group of students were cost and lack of language ability.

Spiering and Erickson (2006) researched students who attended information sessions at their universities on study abroad opportunities and who subsequently either did take up the opportunity or did not. The main reasons given by those who subsequently decided not to go included a) they felt that the process was too complicated and b) they felt that study abroad was incompatible with their study and career plans and did not view study abroad as beneficial to these plans. Interestingly, in this study the non-mobile students did not consider the financial costs involved in study abroad as a major factor, nor was there any indication that their academic ability was a factor in the decision not to go abroad.

Socio-economic status

The ISM report (Sussex Centre for Migration, 2004) hints that socio-economic status plays a role in the willingness and/or ability to be mobile: students from wealthier backgrounds who had travelled or had holiday homes abroad were more positively oriented towards a study abroad option. Wiers-Jenssen (2011) also states that both previous international travel and the educational background of parents can impact on the mobility decision. From their in-depth interviews with U.K. students Brooks and Waters (2009) talk of the influence of socio-economic status as a positive factor in determining which students would be mobile, i.e. those from more privileged backgrounds were more likely to take up the opportunity. This is not only because they are financially more able, but also because of the likelihood of familiarity with overseas travel and cultures gained through family holidays abroad and, in some instances, 'their more geographically dispersed social networks' (see Brooks *et al.*, 2012; Findlay *et al.*, 2006; Ong, 1999). The HEFCE report (2009) discusses the high rate of study abroad students in the U.K. who were from higher socio-economic classes, as does the British Academy Position Paper (2012) on valuing the year abroad, which indicates that academically able, white students from well-educated families make up a large proportion of mobile students. The European Parliament report (2010) on participation in Erasmus speaks of Erasmus students coming from privileged socio-economic backgrounds, particularly with respect to the parent's educational background.

In 2010/11 77.8% of U.S. study abroad students were white (Institute for International Education Report, 2012), with 22.2% thus being from a racial/ethnic minority. Presley *et al.* (2010) discuss the demographic make-up of U.S. students who study abroad: predominantly

white female, with highly educated parents, who have previously travelled abroad, who are academically bright and who come from the humanities/social sciences disciplines. These statistics suggest an over-representation of white students and an under-representation of ethnic minorities in the study abroad group. Brux and Fry (2010), in their study on U.S. multicultural students and study abroad, discussed a number of factors that could account for this relatively low (and only slowly increasing) participation rate among ethnic minorities, including fear of racism and discrimination, family concerns and attitudes, as well as finance and institutional factors.

From the above discussion about the differences between mobile and non-mobile students and perceived barriers to mobility a number of inferences can be drawn. Firstly, academic ability per se does not seem to be a defining factor in the mobility decision. Secondly, there is evidence to suggest that mobile students possess certain characteristics that mean they are positive about mobility and that these personality characteristics are either not present, or present to a lesser extent in non-mobile students. Thirdly, a number of factors can influence the mobility decision, including a student's attitude, their socio-economic status and external factors, such as the HE institution's attitude towards mobility. Therefore, the evidence as presented implies that the personality of a student could play a role in influencing the mobility decision but that antecedent or social influences are also relevant.

2.2.6 Issues with research on mobility

There are a number of issues that need to be mentioned in respect of the research into the relevance and impact of mobility. A general point is that, as with any form of research, there may be issues with reliability and validity. Another general point to be made is that much of the published research on international education in general is either of U.S. or Australian origin, while Daley (2007) states that much of the research into study abroad in particular is of U.S. or European origin. This is not a problem per se; it is perhaps a reflection of the seriousness with which this particular activity is viewed in certain countries and/or how easily reliable and accurate data can be accessed. It does, however, mean that there may be national or regional idiosyncrasies (for example, how the concept of 'study abroad' is defined) contained within the research which skew the generalisation of the results or make comparisons problematic, and that there are important gaps in the body of knowledge.

More specifically with regards to the above discussion, there is often debate about how and what exactly to measure in terms of benefits. The discussion on intercultural competence is a clear example: where there is still dissent and debate about how to define a particular

concept it is not easy to pinpoint reliable methods for measuring and assessing this concept which would be universally acceptable. McLeod and Wainwright (2009) state the need for assessing the quality of the student experience (as opposed to the more easily quantifiable aspects of study abroad, such as numbers of participants, financial costs) but 'quality' is also a concept that means different things to different people and therefore the measurement of 'quality' as an indicator can be contentious.

Arguably, the more assessment instruments used and the more people involved with the assessment and measurement, the greater is the likelihood of disagreement on interpretation of results. As Hudzik and Stohl (2009) point out:

"Valid or reliable data for measuring outcomes is often not available, or interpreting their meaning gives rise to methodological problems" (p14).

According to Durrant and Dorius (2007):

"The content of student evaluations is very important and complex and may involve multiple assessment instruments or university departments to successfully measure academic achievement or intercultural proficiency" (p34).

Much of the research cited above uses self-reporting student perceptions, often retrospectively, as the basis for drawing conclusions and making generalizations (e.g. Bakalis and Joiner 2004, Orahod *et al.* 2004). The problem with accuracy has already been mentioned previously by van Hoof and Verbeeten (2005). Obviously, in studies where the data are based on self-perception and recall, sometimes after only a very short period of reflection questions can justifiably be asked about how objective and how reliable the findings and conclusions can be. Perceived change mentioned by the students (for example in personal development) does not necessarily correspond to actual change. This is not to say that such studies are of little value: as previously mentioned international education is a relatively new field of research and even research that can be criticised on methodology can make a contribution to the knowledge, even if that contribution is in the sense of how the research could be improved.

Finally, difficulties also surround the use of control groups. In mobility research a control group would normally consist of students who were, in essence, the same as those being investigated with the only difference being that they do not study or work abroad. However, if the previous discussion on the role of personality and, to some extent, socio-economic

background, as determining factors in mobility is accepted then it would be almost impossible to find a control group that mirrors the research group in every aspect bar their willingness to be mobile. By definition they would be different in their personality. The experimental group is different to the control group through certain personality traits that mean they view study abroad positively, not only because they take the step to go abroad. Dwyer (2004) expands on this difficulty of the control group:

“It is difficult to attain a control group that is truly comparable with the experimental group because there are too many confounding variables during the college years (i.e. socio-economic levels, academic choices, maturation, etc.)” (p154).

Such challenges obviously have implications for any study design that uses control groups. No matter how diligently the control group is selected to ensure it matches as closely as possible the experimental group, the above factors of personality and socio-economic background and, indeed basic human nature, imply that there will always be more variables in the mix than those that are being investigated.

2.2.7 Summary of arguments

In summary the discussion above leads to a number of points:

1. The significance of international education in whatever form is acknowledged, in particular by governments and by some higher education institutions, although the extent to which it is supported and promoted is debatable.
2. The reason why international education is deemed significant is because of the tangible and intangible benefits it develops. However, these benefits are often difficult to quantify. Nonetheless, as investment in international education requires resources, it is necessary to be able to clarify and measure these outcomes, partly in order to justify the investment of those resources.
3. International education covers a wide range of activities. For the purposes of this research, the specific interest lies in those students who take time (usually between one semester and one academic year) to study at a foreign institution or to work abroad.

4. International mobility brings with it exposure to other cultures and attendant benefits, such as greater intercultural competence although there is little research into the specific skill set of graduates who have undertaken a mobility experience. Equally, there is little research into the entrepreneurial behaviour of mobile graduates.
5. Benefits of mobility from the employers' perspective include an increase in a student's 'well-roundedness', adaptability, initiative, assertiveness, cultural sensitivity, maturity and general personal development. It has been noted, however, that mobility could lead to an increase in 'restlessness', i.e. shorter time periods spent with one employer.
6. From a student perspective, benefits of the international experience include foreign language proficiency and communication skills; enhanced cultural awareness and sensitivity and the ability to work in cross-cultural teams; increased confidence, initiative and independence; greater flexibility and adaptability; the ability to maintain an open mind and be tolerant of others; global mindedness; crisis management skills, high levels of tolerance of ambiguity, patience; higher creative and problem-solving skills; overall employability enhancement and general personal development.
7. From the literature it is not possible to conclude that there is a difference in the academic ability of mobile and non-mobile students. There are barriers to mobility but the research has yet to show conclusively that antecedent factors influence the mobility decision, although certain factors such as financial security and socio-economic background do seem to have an impact. There is evidence showing that ethnic and racial minority groups are not as mobile as white students (in predominantly white societies).
8. There do appear to be some differences, however, in certain personality traits of mobile students, who exhibit higher levels of risk-taking propensity, tolerance of ambiguity, openness and internal locus of control than non-mobile students.
9. In terms of existing research into international education a number of issues arise. Firstly, that there is a prominence of research with a 'Western' or 'Anglo-Saxon' approach. Secondly, there is debate about how to measure the outcomes of mobility. Thirdly, that much of the research about student mobility is based on student perceptions and reflections (and thus retrospective and subjective) and there has been little comparison made between self-reported outcomes and actual outcomes of

mobility. Fourthly, that the use of control groups in any research of this nature brings with it some inherent obstacles.

10. Alongside the research issues mentioned above is the fact that many of the existing studies tend to be either qualitative or quantitative and show little evidence of triangulation or complementarity, i.e. few of the existing studies use more than one research method to support, correlate and enhance the findings. Many of the studies are based on one university, or one particular group of students or on one academic discipline and there are few that are longitudinal and/or that carry out pre- and post-test analysis.

In conclusion, the whole area of research into international education in general and study abroad / work placement abroad in particular is still new. Accordingly there are gaps in the body of knowledge as seen from the above discussion. As Cuthbert *et al.* (2008) state:

“A further impediment to research of this kind remains the theoretical and methodological fuzziness around the specific (and demonstrable) connections between higher education and its often-asserted, but rarely established, benefits to the individual and the community” (p261).

Kehm and Teichler (2007) also use the word ‘fuzziness’ to describe the lack of clear demarcations surrounding universal agreement on what internationalisation within HE means. Within the field of student mobility the research parameters and paradigms have still to be clarified and question marks remain on some of the research methodologies.

In terms of my particular research area, the above literature review leads to two main conclusions. Firstly, there would appear to be little concrete evidence of specific skills development, particularly those pertinent to entrepreneurship, as a result of mobility. Secondly, much of the research to-date can be criticised because of sample size, sample choice, use (or not) of control groups and a lack of use of a variety of complementary research methodologies that support and underpin the findings.

2.3: Entrepreneurship

This section highlights the role of entrepreneurs in an economy, examines some of the main theoretical arguments surrounding the definition of an entrepreneur and entrepreneurial behaviour and discusses what effect, if any, culture and international exposure have upon the definition. Literature on the transitory nature of entrepreneurship and entrepreneurship in a non-business context are also reviewed.

2.3.1 What is entrepreneurship?

An investigation into the subject of entrepreneurs, entrepreneurial behaviour or entrepreneurship requires an understanding of the terminology involved. But it is hard to find a clear definition of any of these terms. Caird (1993) talks of the 'elusive nature of the entrepreneur' and this elusiveness probably arises because of the myriad of views that are found in the literature concerning who an entrepreneur is and what s/he does.

Most definitions and discussion on the topic of entrepreneurship concentrate on the role of entrepreneurship in business, the impact that entrepreneurial behaviour has on starting and/or growing small businesses. For example:

“[The definition of entrepreneurship] encompasses everyone who starts a business. Our entrepreneur is the person who perceives an opportunity and creates an organization to pursue it. And the entrepreneurial process includes all the functions, activities, and actions associated with perceiving opportunities and creating organizations to pursue them” (Bygrave and Zacharakis, 2011 p1)

or

“Entrepreneurship is an activity that involves the discovery, evaluation, and exploitation of opportunities to introduce new goods and services, ways of organizing, markets, processes, and raw materials through organizing efforts that previously have not existed” (Shane, 2007 p4).

The concept of intrapreneurship, those individuals who take hands-on responsibility for creating innovation of any kind within an organization (Pinchot, 1985), arises in some of the literature (e.g. Beugelsdijk and Noorderhaven, 2004; Cromie, 2000) but very little attention is paid to entrepreneurial behaviour outside the mainstream business environment, to those people who 'fit' the list of requirements to be an entrepreneur but who use this in society in a context other than business, even though the previous U.K. Labour Government (BIS, 2009 p12) accepted that:

“Entrepreneurship is not solely about business skills or starting new ventures; it is a way of thinking and behaving relevant to all parts of society and the economy.”

Gartner (2010) also states that business creation is just one element of entrepreneurship, which is a ‘very broad topic area’, implying that entrepreneurial behaviour does not just take place within a business context. This idea of entrepreneurship in a non-business context is discussed in more detail in Section 2.3.12.

The role of an entrepreneur in economic and business theory is very much tied up with the idea of success. Success is difficult to define but there is an assumed acceptance within much of the theory that success equates to tangible factors, i.e. one is successful if one makes a profit and/or grows a business. There is little discussion in the literature of entrepreneurs being considered successful by achieving other, less tangible and measurable goals. McClelland’s ‘Need for Achievement’ (1961) is sometimes referred to as the spur for entrepreneurship but is not used as an obvious measure of ‘success’ – in the business world that still tends to be carried out using profit figures and percentage growth.

We can split the discussion of the definition of entrepreneurs into three categories, the first two being concerned directly with the entrepreneur as an individual and the third category involving macro-environmental influences that shape national environments and that encourage entrepreneurial behaviour. The first category relates to whether the ability to act entrepreneurially stems from personality traits, that is to say whether a person is born with certain characteristics that lead him/her to start up in business (and hence what these traits might be). The second category concerns antecedent and/or societal influences, such as education, family, race, etc. and the third category contains those elements described by Porter (1990) as providing a “favourable environment which combines social, political and educational attributes” (cited in Timmons, 1994 p12), that contribute to a conducive environment in which entrepreneurship can flourish. It is necessary to consider these three areas in any discussion on defining entrepreneurship and investigating student propensity for entrepreneurship. The first two categories relate directly to the individual and obviously therefore include students. The third category is relevant in as much as it concerns the environment in which a student is placed when undertaking mobility, and so could have a double impact – firstly through providing a positive or negative entrepreneurial cultural environment for an individual and secondly (and leading on from the first factor) by causing a cultural reaction or change in an individual (i.e. how the individual reacts to this new cultural environment and what impact this has).

There is a wealth of research into the topic of entrepreneurship yet at the same time a wealth of debate and discrepancy, in particular in the area of defining the terminology. As Cromie (2000) states:

“The debate about how to increase entrepreneurship has been hampered by a lack of agreed definitions of entrepreneurship and associated topics” (p7).

Koellinger (2008) agrees with this problem as he states that there is still a lack of common understanding of what many of the terms involved, such as entrepreneurship, innovation and opportunity, represent. Added to the discussion about definitions is the fact that not only is there discussion and debate about research findings but also about the very methods used to arrive at these findings. Wortman (1986, cited in Cromie 2000) puts forward the point that:

“Research is also hindered by disagreements about the most appropriate methods and instruments to be used in assessing entrepreneurial tendency” (p13).

This view is supported by Robinson *et al.* (1991a), who state that when considering personality traits as definers for entrepreneurship the issue is not just the absence of clear psychological characteristics that separate entrepreneurs from non-entrepreneurs but the theories and methods that are used to identify such characteristics.

It would appear unwise to attempt to arrive at one single definition that encompasses all viewpoints on who is an entrepreneur and what constitutes entrepreneurial behaviour; this is an area that is rife for dissent and debate. The three ‘elements’ of entrepreneurship mentioned above (the ‘personality’, the ‘antecedent and societal’ picture and the ‘environmental/cultural context’ within which entrepreneurship takes place) need to be examined in order to discover the various entrepreneurial concepts represented in the literature, concepts that are recognisable and acceptable to interested parties for this research. In order to do this it is necessary to review the major points and theories revealed in the literature.

2.3.2 Economists and entrepreneurship

Some of the most well-known but not necessarily least contested definitions of an entrepreneur come from noted economists. Joseph Schumpeter (1934) stated that entrepreneurs are individuals whose function it is to carry out new combinations of existing elements. An entrepreneur, according to Schumpeter:

- a) introduces new goods or services,
- b) introduces new methods of production,
- c) operates new markets,
- d) finds new sources of raw materials, and
- e) carries out new organisation of any industry.

In this way Schumpeter distinguishes between an entrepreneur, who is an innovator and also a rare specimen, and a manager who is employed to run an existing business. According to Deakins and Freel (2009) Israel Kirzner's entrepreneur is one who recognizes profit opportunities through exchange in the market place:

“The Kirznerian entrepreneur is alert to opportunities for trade.....the possibilities for profitable exchange exist because of imperfect knowledge. The entrepreneur has some additional knowledge, which is not possessed by others, and this permits the entrepreneur to take advantage of profitable opportunities....it takes someone with additional knowledge to recognize and exploit the opportunity” (p4).

Unlike Schumpeter's entrepreneur, Kirzner's entrepreneur is not necessarily a rare specimen: anyone can possess the additional knowledge and be alert to opportunities for exchange and trade (Deakins and Freel, 2009), although perhaps one could argue that recognising the importance and usefulness of 'additional information' and the application of this knowledge is an entrepreneurial skill in itself and therefore perhaps not 'anyone' can possess it.

Casson (2003) talks of the stereotypical idea of an entrepreneur, that of a 'swashbuckling business adventurer', which suggests someone who is brave, reckless and open to new challenges and, indeed, Casson does emphasize decision-making under uncertainty as one of the criteria that falls into his understanding of an entrepreneur. He also recognises and discusses the importance of personal characteristics in an entrepreneur and how they connect to success:

“Although economic theory has little to say on the matter, intuition suggests that there is a close connection between the personal qualities of the entrepreneur and the economic success of the firm, as measured by its growth and profitability” (p11).

As mentioned above, how 'success' is defined within entrepreneurship is open to debate, but Casson confirms that, certainly in terms of the discussion of entrepreneurs in economic theory, a successful entrepreneur is often measured by tangible factors such as profit.

The arguments in the literature swing from being dominated by personality traits, those traits that set an individual apart from others and which lead to entrepreneurial tendencies or behaviour, to an almost Kirznerian viewpoint, whereby it is the situation that makes the entrepreneur, not the other way around. The concept of personality as a defining factor for entrepreneurship is considered below.

2.3.3 The personality debate

"No single trait or characteristic defines the entrepreneur, nor does it allow one to predict entrepreneurial behaviour. It is a configuration of traits that separates the potential entrepreneur from those who are not predisposed or motivated to engage in new venture formation" (Mueller and Thomas, 2001 p51).

When discussing personality, the literature considers many traits that may be attributable to entrepreneurs or which are more prevalent in entrepreneurs than in non-entrepreneurs. For example, the Big 5 Personality traits are discussed: these are extraversion, emotional stability, agreeableness, conscientiousness and openness to experience, all of which are said to be characteristics of entrepreneurs (various, cited in Dimov, 2007). Burns (2007) sees entrepreneurs as opportunistic, innovative, self-confident, proactive and decisive with high energy, self-motivated (intrinsic motivation), with vision and flair and who are willing to take greater risks and live with greater uncertainty. Raab *et al.* (2005) studied entrepreneurial potential using seven characteristics: achievement motivation, internal locus of control, risk-taking propensity, problem-solving ability, willingness to assert oneself, tolerance of ambiguous situations and emotional stability (this study is discussed in more detail in Section 2.3.6). Rodica Luca *et al.* (2012) compile a long list of personality traits from various authors, including achievement motivation, intrinsic motivation, autonomy, tolerance of ambiguity, moderate risk taking propensity, entrepreneurial self-efficacy, creativity and innovation and independence (Weitzel *et al.*, 2012; Fisher and Koch, 2008; Kickul and Gundry, 2002).

These are just some examples of the variety of characteristics that are associated with entrepreneurs. The importance and relevance of each of these is debated, in some cases in

great detail, with often contradictory conclusions being drawn, but what does come through the literature is a consensus that when discussing entrepreneurial personalities some main traits emerge and are consistently quoted (Tajeddini and Mueller, 2011). These include: need for achievement, locus of control, self-efficacy, confidence (in one's own ability to cope with and overcome obstacles in certain situations), risk-taking propensity and the related concept of tolerance of ambiguity, and the ability to be innovative (which includes creativity). According to Tajeddini and Mueller (2008):

“...a growing number of authors argue that identifying a cluster of relevant traits may be more useful to assess the entrepreneurial personality than focussing on a single characteristic” (p7).

Some of the most discussed and hence perhaps most relevant traits are those below.

The Need for Achievement

The need for achievement is closely associated with the work of McClelland (1961) who purports that entrepreneurs are individuals who exhibit a need for achievement which drives them on to succeed. While (Western) society often measures achievement through the acquisition of wealth McClelland and others, who discuss the relationship between achievement motive and entrepreneurs, believe that it has a range of facets and that money is not the sole driver for entrepreneurs: Cassidy and Lynn (1989, cited in Sagie and Elizur, 1999)...

“...suggested that work ethics, dominance, competitiveness, status aspiration and acquisitiveness for money and wealth, are basic factors of achievement motive” (P376).

Raab *et al.* (2005) speak of achievement motivation characteristics including overcoming obstacles (through determination), attaining high standards, excelling oneself and surpassing others and the successful exercise of talent. Delmar (2006, cited in Carter and Jones-Evans, 2006) lists a range of empirical evidence that supports the relationship between entrepreneurship and achievement motivation, stressing that it is satisfaction (at having achieved a certain level in one or more of the above facets) that is the *raison d'être* for entrepreneurs, not wealth. Franco *et al.* (2010), while citing some researchers who highlight financial success and high income as reasons why people start their own business, nevertheless suggest that economic motives for setting up a business are less important than other non-financial motives; this view is similar to that of Raab *et al.* (2005).

Locus of Control

Locus of control concerns...

“...whether a potential end or goal can be attained through one’s actions or follows from luck or other uncontrolled external factors. A person believing that the achievement of a goal is dependent on his or her own behaviour or individual characteristics believes in internal control. If, on the other hand, a person believes that an achievement is the result of luck and external factors, they believe in external control” (Delmar, 2006 p163).

The concept of locus of control dates back to Rotter (1966, cited in Beugelsdijk and Noorderhaven, 2004), who talks of the outcome of an event as either within or beyond personal control and understanding. It follows from this concept that those who exhibit a high level of internal locus of control, i.e. those who believe that their fate is in their own hands, are more likely to be prepared to take what others might consider to be risky decisions over which they have no control, and therefore to act entrepreneurially.

Having an internal locus of control is linked to risk in as much as the perception of risk and one’s ability to influence results are vital to the business start-up decision – so entrepreneurs are more likely to have an internal rather than an external locus of control orientation (Brockhaus and Horowitz 1986). Harper (1998) also links it to entrepreneurial alertness and self-efficacy and confidence, as starting a business requires having the confidence and ability to exercise control over the process and influence the outcome positively.

Self-efficacy

“Self-efficacy is about a person’s belief in their capabilities to mobilise the motivation, cognitive resources and courses of action needed to control events in their lives...A person’s belief in their efficacy influences the decisions they make, their level of aspirations, how much effort is mobilised in a given situation, how long they persist at the task in the face of difficulties and setbacks and whether their thought patterns are self-hindering or self-aiding” (Delmar, 2006 p169).

This is different to locus of control in that self-efficacy is dependent upon situations:

“Perceived self-efficacy is the perceived personal ability to execute a target behaviour. That is, self-efficacy is an attribution of personal competence and control in a given situation” (Krueger and Brazeal, 1994 p93).

Delmar (2006) describes it using the example of individuals believing themselves to be very skilled rock-climbers, but hopeless in business matters, even though both activities require certain levels of risk, i.e. the level of self-efficacy depends on the situation/event, whereas locus of control is more general – in other words it is generalised self-efficacy – and covers a variety of situations.

In entrepreneurship research the concept of Entrepreneurial Self-efficacy (ESE) is an individual’s belief in their ability to successfully perform the roles and tasks associated with entrepreneurship and is, thus, an important element in determining entrepreneurial behaviour (Boyd and Vozikis, 1994; Krueger and Brazeal, 1994; Scherer *et al.* 1989, cited in Chen *et al.* 1998). McGee *et al.* (2009) state:

“ESE is particularly useful since it incorporates personality as well as environmental factors and is thought to be a strong predictor of entrepreneurial intentions and ultimately action” (p965).

Interestingly, for this research, they go on to state that there is evidence to suggest that ESE can be developed through education and training, i.e. it could be affected by an educational experience, such as study abroad. (See Florin *et al.*, 2007; Mueller and Goic, 2003, cited in McGee *et al.*, 2009).

Confidence

Self-efficacy is very much connected to the idea of confidence. Bandura (1995) states that self-efficacy...

“...refers to beliefs in one’s capabilities to organize and execute the courses of action required to manage prospective situations” (p2).

i.e. having self-confidence. Confidence as a characteristic of entrepreneurs in its own right is discussed by Tajeddini and Mueller (2009), who argue that...

“...entrepreneurs have confidence in their own ability to both accomplish any goal they set for themselves, also overcome the odds, and succeed where others may fail” (p10).

Koh (1996) in a study of Hong Kong MBA students found that those students who were more entrepreneurially inclined had more self-confidence than those students who were not so inclined. He also found higher levels of tolerance of ambiguity, greater innovativeness and higher risk-taking propensity in the former group. The study is based on 54 questionnaires, completed by both so-called ‘entrepreneurially inclined’ and ‘not entrepreneurially inclined’ individuals, and the results are not surprising in as much as one would expect those individuals who are planning to set up a business to have high levels of confidence. ‘Planning’ is important, as the ‘entrepreneurially inclined’ group are those who plan to set up a business, not those who have already done so. It could be argued that a weakness in this study is the use of ‘entrepreneurially inclined’ as Koh does not measure whether these high levels of confidence (and other personality traits) subsequently lead to entrepreneurial behaviour.

In an entrepreneurial context decisions often have to be made in uncertain situations and where little information and/or evidence is available. As Koellinger (2008) points out, making decisions based on little evidence requires high levels of self-confidence, indeed it is a trait of overconfident people. Tajeddini and Mueller (2009) also mention overconfident people, stating that according to Busenitz and Lau (1996) overconfidence allows an entrepreneur to push forward with an idea before all the facts are known. Sarasvathy (2012) reported that entrepreneurs scored high in overconfidence, which she described as an excessive, mostly unjustified, belief in being able to beat the odds.

Risk-Taking Propensity and Tolerance of Ambiguity

Sarasvathy (2012) describes overconfidence as a belief in being able to beat the odds – this implies that entrepreneurs are also willing to take risks.

“Enterprising people and entrepreneurs seek and realise productive opportunities and consequently function in an uncertain environment. As a result, they must not be overawed by risky situations....common sense would suggest that entrepreneurs must not be averse to taking risks.” (Cromie, 2000 p19).

According to Raab *et al.* (2005):

“Individuals with a pronounced taste for taking risks are likely to choose alternatives that have less of a chance to produce the expected advantageous results than alternatives with better chances but less advantageous expected results” (p73).

Risk-taking propensity is a trait that is attributed to entrepreneurs, indeed Mill (1984) proposed that risk bearing is what distinguishes entrepreneurs from managers. However there is debate among theorists as to the level of risk that entrepreneurs take. Cromie (2000) argues that there is a difference between those who accept that risk is an inherent part of any new venture and who are willing to take on that risk and those entrepreneurs who are calculated risk takers, who assess very carefully what risks are attached to a venture and who take measures to minimise their own personal risk, such as through sharing risk with other stakeholders. Indeed, Miner (1990, cited in Cromie, 2000) makes the point that, in reality, a key entrepreneurial trait is that of finding ways of avoiding, minimising or dispersing risk, rather than accepting it.

Perhaps less controversial as an entrepreneurial trait is not so much the willingness to accept risk at some level but rather the so-called ‘tolerance of ambiguity’, the emotional response to ambiguity and uncertainty in situations and the extent to which one thrives in unstructured situations. Koh (1996, cited in Cromie, 2000) claimed that tolerance of ambiguity was one of the fundamental features that differentiated entrepreneurs from non-entrepreneurs.

Innovation and Creativity

Innovative ability is one more trait that is often associated with entrepreneurs, indeed Timmons and Spinelli (2007) state that “at the heart of the entrepreneurial process is the innovative spirit” (p55). We have already reviewed Schumpeter’s definition of entrepreneurship and how this links to innovation, i.e. bringing about and exploiting new combinations. Mintzberg (1983, cited in Burns, 2007) stated that innovation was the method of breaking away from established relationships, implying that it is something outside the norm and that it brings about change. Innovation can occur in any situation in life, but in a business context innovation is usually thought of as a change to products, services or processes that are commercially viable and sustainable, or where change, opportunity and innovation are combined by the entrepreneur in order to achieve commercial gain (Burns, 2007).

Innovation is not a trait per se, but it is strongly linked with the ability to be creative and to use that creativity in an innovative (commercially viable) way, in other words innovative

ability. Keil (1987) defines creativity as the ability to look at things differently and that it requires a state of mind that is always alert and ready to turn any stimulus into a new idea. Leung *et al.* (2008) argue that creativity is typically defined as bringing into being something that is useful as well as new, but it could be argued that this is only a relevant definition when used in the context of innovation and entrepreneurship. There are countless examples of creativity in the Arts that are not necessarily useful or functional but that are certainly novel. We could also argue that creativity is the spark and that innovation is the action that turns that spark into a useful, commercially viable and sustainable product, process or service. Therefore these two are separate yet linked: not every creative idea becomes an innovative idea and yet innovation cannot take place without creativity – creativity is a precondition to innovation and innovative ability is required to turn that creativity into innovation.

If we accept that creativity is the starting point for innovative ideas which, in the hands of an entrepreneur, are then turned into commercially viable products, services or processes, it follows that creativity and the extent to which this is present and/or developed plays an important role in defining entrepreneurs. Leung *et al.* (2008) argue that...

“...personality studies have demonstrated that creative people tend to be nonconforming, independent, intrinsically motivated, open to new ideas and risk-seeking....large scale studies and meta-analysis have found that intelligence, tolerance of ambiguity, self-confidence and cognitive flexibility also tend to be found in creative people” (p171).

Koellinger (2008) also links innovative ability to other entrepreneurial characteristics such as uncertainty and risk – an indication that entrepreneurial characteristics and, indeed, personality traits in general cannot be considered as singular and isolated entities.

One other very interesting idea researched by Leung *et al.* (2008) is that of how creativity can be enhanced or developed by exposure to a different cultural environment, more specifically, through spending time abroad. As this idea is particularly relevant to my research it is considered in more detail in Section 2.3.6.

Issues with personality

One of the issues with personality traits is the discussion as to whether we are born with these traits or not and whether they remain stable over time or are subject to change. Opinions on whether personality is stable or changes over time are largely determined by

how the term 'personality' is defined and understood. Heatherton and Nichols (1994, cited in Heatherton and Weinberger, 1994) state that personality can be defined as encompassing "almost all aspects of human life and experience", implying that any new experience undergone by an individual will impact upon that individual's personality. Costa and McCrea (1994, cited in Heatherton and Weatherby, 1994) use a model of personality that discusses basic tendencies or traits (innate qualities such as temperament, intelligence, attractiveness) and how these interact with the external environment to produce characteristic adaptations (the example they use is that of the basic trait 'intelligence' and the environment 'education' resulting in a particular scholarly career – a characteristic adaptation). Costa and McCrea (1994) also discuss the objective biography (the thoughts, actions, emotions, etc. of an individual throughout their life) and the self-concept (an individual's perception of who they are) in their model. Duggan (2004) points out that...

"...with this model, one can see that while 'Basic Tendencies' are largely stable, they can produce an array of responses depending on the specific environment in which their potential is realized" (p9).

Hence it is a combination of personality traits and environmental situations that determine how we behave. If personality traits do not change over time, as argued by James (1890, cited in Duggan, 2004) and Caspi and Herbener (1990, cited in Duggan, 2004) then we are almost trapped by our own personality, we are not susceptible to personal development or to external influences and therefore these traits cannot be developed or nurtured. The inference for the entrepreneurship debate is that those people who are born with these traits may or may not become entrepreneurs but that those who are not born with these traits are unlikely to become entrepreneurs, or at least not successful ones. If this were the case we could sort out the 'wheat' from the 'chaff' at an early stage, so seek out those with the requisite personality traits and concentrate efforts to build an entrepreneurial culture (for example through government support and policies) around those people who exhibit these traits. Arguments against this abound. It is almost impossible to say that we, as humans, do not change over time, or that our behaviour is affected not only by the type of person we are but also by external influences and societal pressures. Plus, there is the point that these traits can exist to different degrees. Person A may be a risk-taker or show evidence of Need for Achievement, but Person B might be deemed even more of a calculated risk-taker, or exhibit more evidence of the Need for Achievement. Which of these two is an entrepreneur and which is not? Is one more entrepreneurial than the other? Are there degrees of entrepreneurial behaviour? There are no clear-cut boundaries in personality.

Different personality traits are required during the start-up of a new business to those required at later stages in a business life-cycle (Frank *et al.*, 2007). This is because of the differentiation between 'weak' and 'strong' situations (Adler, 1996; Mischel, 1968; both cited in Frank *et al.*, 2007). Weak situations are those where there is a great deal of chaos, uncertainty and a lack of standardised procedures – for example during a typical start-up phase – and these situations call for certain personality traits, such as risk-taking, high internal locus of control, etc. Strong situations, on the other hand, are those where there is more order, less uncertainty and a greater need for delegation, such as during business growth/success and hence a different set of personality traits is called for at this stage in the business. If this is so, it would imply that either a) an entrepreneur needs to change over time in order to be capable of coping successfully with both weak and strong situations, i.e. there is personality development over time OR b) once the business moves from a weak to a strong situation the entrepreneur will move away from the business, will delegate responsibility for taking the business through this phase, will turn his/her attention elsewhere, perhaps to start up another business, because his/her personality is not geared towards the requirements of running or growing a business where order, structure and delegation are required. If the latter premise is accepted, Governments would need to differentiate clearly in their support policies and measures to focus on these different types of 'entrepreneurs'.

Before turning our attention to the second category of facets of entrepreneurs, that of antecedent and societal influences, it is necessary to reiterate the disputes that abound in the area of personality traits and entrepreneurship. Robinson *et al.* (1991a) list four major areas of concern when basing entrepreneur research on personality theories. These are:

- 1) Most research methodologies based on personality are not developed or specifically intended for use in defining entrepreneurship and have therefore often been applied erroneously or inappropriately.
- 2) Different instruments that are supposed to measure the same concept correlate poorly; they lack validity.
- 3) Personality theories are designed for use across a wide range of situations; they measure general tendencies and are not focussed on one particular domain.
- 4) Personality theories tend to assume that one is born with a set of characteristics and that these characteristics remain stable over time. The current debate on entrepreneurship places as much emphasis on situational and antecedent influences in the development of entrepreneurs, a concept which does not tie in well with traditional personality theories.

In their research on entrepreneurial intent in transitional economies, Shook and Bratianu (2010) use Romanian business students from one university to investigate how effective the Theory of Planned Behaviour (TPB) is in predicting entrepreneurial intent and behaviour in a post-communist society. (TPB, the use of attitude rather than personality and its relevance for my research is reviewed in more detail in Section 2.3.11). Their argument for using this model is that it avoids the use of personality as a predictor for entrepreneurship, as their belief is that personal characteristics and psychological attributes are unreliable indicators for entrepreneurship, whereas attitude measurement is more reliable. Their study has a number of limitations – students from one university, students from one discipline, predominantly female participation – but it does show that, specifically in the case of entrepreneurial intent, predictors other than personality can play a role.

Gartner (2010) suggests that using personality traits is an easy way to label entrepreneurs but that this ignores the fact of the entrepreneurial situation. From the above discussion we can conclude that theorists agree that there are certain characteristics that appear to be prevalent or associated with entrepreneurship (although the extent to which each is prevalent or important is unclear) but that a) there are a number of criticisms that can be levelled at using a personality approach in order to define entrepreneurship, b) the discussion as to whether these personality traits can change over time is still open and c) personality alone cannot predict entrepreneurial behaviour.

2.3.4 The Antecedent and societal debate

If the extent to which personality traits define entrepreneurship and entrepreneurial behaviour is questionable and/or if some people possess entrepreneurial characteristics yet only use these in certain circumstances, we should now consider the second category of facets, those circumstances that are antecedent, societal, or situational and that may influence the development of entrepreneurial behaviour. These tell us about the entrepreneur and his/her history and include family background, ethnicity and employment and work history. Education is also a facet but is considered separately in this discussion. According to Robinson *et al.* (1991a) this demographic information could help define the profile of a typical entrepreneur and therefore help identify potential entrepreneurs in an unknown population, i.e. there is an assumption that individuals from similar backgrounds will share similar underlying characteristics.

Much of the research on these antecedent factors has investigated their influence on people who have started up businesses (those who have ‘acted’). Two points need to be considered

here. Firstly, there is little distinction made in the literature between an entrepreneur and an owner-manager. The entrepreneur v owner-manager debate is an important one within the context of defining an entrepreneur as, once again, conflict exists as to whether these are two different entities or not. Much of the research into individuals' antecedent influences uses either self-employment or setting up a business as the measurement criteria – both activities that could be argued to be only one element of entrepreneurship and hence the results may not help in achieving a clearer definition of an entrepreneur. Secondly, leading on from the previous point, the literature once again largely ignores the non-business context, for example, those people who have acted entrepreneurially but who haven't set up a business and therefore whose entrepreneurial activity cannot be easily measured using profit and growth. A brief discussion of some of these antecedent and societal factors should highlight more of the controversy.

Family

The most cited aspect of 'family' in the entrepreneurship literature is that of role models, i.e. do children whose parents/relatives act entrepreneurially also do so? Kirkwood (2007) says that often parents who are self-employed or who have acted entrepreneurially can 'ignite' the entrepreneurial spark in their offspring. Scott and Twomey (1988, cited in Phan, 2002) found that...

“...students whose parents owned a small business demonstrated the highest preference for self-employment and the lowest for employment in a large business” (p155).

De Wit and van Winden (1989) carried out a longitudinal study using data spanning over 30 years to investigate the influence, among other factors, of family background on self-employment. Their results indicate that the employment status, particularly of the father, is decisive in the choice of whether to become self-employed: children of self-employed fathers, according to the authors, are more likely to become self-employed themselves than children from non-entrepreneurial backgrounds. However, the study had a much higher participation rate among males than females (a deliberate decision made by the authors due to the lower earning potential of females at the time of the study) and as a consequence it is questionable to what extent the results can be generalized across the wider population.

The sub-question to the above discussion is 'if parents do influence the entrepreneurial decision, why is this so?' What causes offspring to follow in the footsteps of their parents? Is it, as Blanchflower and Oswald (2007) discuss, because entrepreneurs/small business

owners with parental role models have acquired general and specific business human capital from that role model or are there (genetic) entrepreneurial similarities across family members that predispose the children to act entrepreneurially? Or is it, as de Wit and van Winden (1989) propose, because the psychological step towards self-employment is smaller when there is a parental role model. They also speculate on the business of the father being taken over by the first-born, primarily male, hence perpetuating self-employment (but not necessarily entrepreneurship). There is no definitive answer to these questions, but the evidence does suggest that, for whatever reason, familial role models can play a part in the decision to act entrepreneurially.

Ethnic minorities

It is clear that ethnic minorities have a history of self-employment. Examples cited in the literature include Turkish immigrants in Germany, Asian immigrants to the U.K., various ethnic groups in the U.S., etc. (Harper, 1985, cited in Burns, 2007). Jenkins (1984, cited in Carter and Jones Evans, 2006) identifies three different possible reasons for ethnic involvement in business. Firstly, the economic opportunity, i.e. ethnic minorities are no more or no less likely to set up a business than other sectors of society and when they do take up the opportunity it is for the same reasons, it is a routine capitalist decision. Secondly, setting up a business is culturally determined and some cultures are more likely to engender the pursuit of entrepreneurial achievement than others. Thirdly, setting up in business is a reaction against racism and against an inability to 'fit in' or obtain employment in mainstream society. Certainly, as immigrants and ethnic minorities, these people have already displayed some of the entrepreneurial qualities already discussed, such as a willingness to take risks and a tolerance of ambiguity. Indeed...

“...the Indians in East Africa, the Armenians in Egypt....all have shown that dislocation and hardship can lead to enterprise. The very experience of living in a difficult environment and of planning, financing and executing a move and then surviving in a new and often hostile environment requires the qualities of self-restraint, abstinence, hard work and voluntary postponement of gratification” (Harper, 1985 cited in Burns, 2007 p42).

Returning to Jenkins, reasons (a) and (b) above may be viable but reason (c) is refuted by examples of West Indian and Guyanese immigrant communities in the U.K. where self-employment is low (see research carried out by, among others, Jones *et al.*, 1992, cited in Carter and Jones-Evans and by Storey, 1994). Cooper *et al.* (1994) seem to question the 'success' of migrant or racial entrepreneurship: in a study of human and financial capital as

predictors of venture performance they found that racial minority was connected to lower probability of both marginal survival and growth, citing fewer business contacts, issues with obtaining finance and credit and access to prosperous customers as some of the reasons why this might be. Once again the literature is indecisive: ethnicity may or may not be a spur to entrepreneurship.

Employment and work history.

The decision to start up a new business is often founded on either the current employment of the individual (s/he sees opportunities to use current and past experience, links, skills, etc. to 'go it alone') or on unemployment as a push factor (setting up a business is seen as an alternative to long term unemployment). Storey (1994) undertook a review of literature and research on antecedent influences for entrepreneurship, including the issue of un/employment and found that unemployment was a factor for individuals setting up their own businesses in at least two studies. His analysis on the future growth of these businesses, however, led him to conclude that...

“...if the founder is unemployed prior to starting a business, that firm is unlikely to grow as rapidly as where the founder is employed” (p128).

A possible explanation for this would be that while the motivation is there to start the business, these individuals may not have either the skills or long-term motivation necessary to grow a successful business, they are not entrepreneurial. Research by Abdesselam *et al.* (1999, cited in Burns, 2007) confirmed that firms with the shortest life-span tend to be those set up by the young (under 30) and the unemployed. Unemployment, then, may be the spur to start up a business, but it is not necessarily connected to sustained entrepreneurship.

Issues with antecedent and societal influences

Robinson *et al.* (1991a) summarise three arguments against the use of such demographic or situational information to help determine entrepreneurs. These appear often in the literature and are as follows:

- 1) There are numerous examples of children who have been brought up with an identical demographic make-up with only small differences in their upbringing who view entrepreneurship differently – “the conclusions drawn by individuals as to the meaning of entrepreneurship may be based on any number of different variables, from small differences in their actual experience to differences in their perceptions of

the same experiences. This makes the prediction of entrepreneurial behaviour far too complex to be handled by anything as simple as sex, race or birth order” (p16).

- 2) There is a lack of empirical evidence for many of the claims made about demographics and many results from research into this area can be interpreted in any number of ways.
- 3) The third argument is that demographics are static factors and historical factors and therefore cannot predict the future behaviour of individuals in a dynamic environment.

Storey (1994), having looked at a number of antecedent influences, also concludes that certain influences, such as family, family circumstances, cultural or ethnic influences, have little impact on self-employment decisions. Burns (2007) too believes that using such factors to categorise entrepreneurs is as, if not more, contentious than using personality and states that the research into such factors is inconclusive. To confuse matters further, Schmitt-Rodermund and Silbereisen (1999, cited in Frank, 2007) declare that:

“Recently it has been acknowledged with increasing clarity that the roots of an entrepreneurial career can be attributed to early phases of a person’s socialization” (p246).

Yet again it would seem that the evidence for the impact of antecedent and societal influences on the entrepreneurial act is inconclusive.

2.3.5 The education debate

In a study on the role of higher education skills and support in graduate self-employment in the U.K. Greene and Saridakis (2008) found firstly that the skills acquired through higher education (plus support from academics) were positively associated with graduate self-employment shortly after graduation, but that, secondly, this association is short-lived, i.e. four years after graduation there was no statistically significant evidence of association between self-employment and the skills or support acquired through higher education and only 29% of those graduates who were self-employed shortly after graduation were still self-employed four years later. The sample of graduates for this study was taken from a wide range of U.K. HE institutions and was large – over 4,000 individuals took part. But the study does not go as far as to provide a discussion on which particular skills from the HE experience help stimulate self-employment, nor does it include an analysis of why so many

graduates cease being self-employed so soon after graduation. Nevertheless, the fact that self-employment is not viewed as a viable option for many graduates in the U.K. is confirmed by research undertaken by Mora and Vila (2010), who found that the U.K. and France shared the lowest rate of entrepreneurs among young graduates across a range of European countries. So despite the political will in the U.K. and investments in entrepreneurial teaching in the U.K. HE sector to aid self-employment among graduates, the current environment in the U.K. would seem to be not as conducive to entrepreneurship as in other European countries.

Education is one more factor cited in the literature as a potential influence on entrepreneurship. In the context of this research, education implies higher level learning, i.e. education at tertiary level. Two of the most famous 'entrepreneurs' of this era, Richard Branson and Bill Gates, either did not go to university or did not complete their course and Vance *et al.* (2012) speak of the popular idea of entrepreneurs as college dropouts. So, does higher education have an impact or not? Once again, education as a requirement for entrepreneurial activity is a contentious issue:

"Conclusions as to whether or not the attitudes and personality traits required for successful entrepreneurship can be transferred through learning are still open to debate" (Hood and Young, 1993 p117).

Caird (1993) discusses the Honey and Mumford measure of learning styles, which considers how people learn, either through reflection, theorizing, experimentation or action (Honey and Mumford 1986, cited in Caird, 1993) and concludes that, in tests using this measure on successful growth oriented small business owner-managers, they...

"...have activist and pragmatic learning styles. In other words, this test shows that entrepreneurs prefer to learn through action and experimentation rather than through theory and reflection" (p13).

One could argue that higher education in the U.K., despite changes in recent years in the way people learn (from learning by rote and with an emphasis on theoretical understanding to a more practical, vocational learning) still, by its very essence, obliges students to think and act in particular ways and puts albeit sometimes unintentional constraints on the way they learn – which is contrary to the free-thinking, risk-taking, creative nature of an entrepreneur. Vance *et al.* (2012) review the idea that higher education, and business and management programmes in particular, curbs, discourages and even stifles other forms of

nonlinear thinking (see also Maines and Naughton, 2010; Grassl, 2010; Bennis and O'Toole, 2005; all cited in Vance *et al.*).

The converse of this argument is that an educational grounding is a requirement for entrepreneurial activity. Schultz (cited in Chell *et al.*, 1991) contended that education can impact on an individual's ability to "to perceive and react to disequilibria" (p25), which is a pre-requisite for an entrepreneur according to Kirzner. Dimov (2007) discusses the recognition of opportunities as being connected to 'abilities such as higher-level learning'. Gibb (1993), in his investigation into enterprise culture and education examines a...

"...contingency theory of enterprising behaviour which argues that such behaviour can be induced and/or enhanced by the environment and thus can be acquired via experience and training as well as being a function of inherited personal traits" (p12).

He does not mention higher education per se here and clearly much has changed in the U.K. HE scene since he wrote this in 1993, but the argument remains that entrepreneurial behaviour can be brought about through some form of learning (training). The U.K. Government policy emphasises the important role that higher education and higher education institutions play in developing graduates who behave entrepreneurially across more than simply the 'narrow focus on business start-up', the implication being that higher education should be producing graduates who are capable of behaving in an entrepreneurial manner across a wide range of activities, not just in business. Higher education is associated with developing intelligence, abstract thinking, curiosity, problem-solving, discipline, motivation, self-confidence, etc. (Koellinger, 2008; Cooper *et al.*, 1994) as well as providing academic knowledge and understanding and these skills may aid an entrepreneur in spotting, developing and implementing business ideas. Franco *et al.* (2010) also stress the fundamental role that HE institutions should play in providing students with the ability, motivation and knowledge to set up businesses.

Clouse (1990) found that students who had undertaken specific curricula designed to aid business start-up were more able to assess risk and make better decisions (although no definition of 'better' is given) after the courses than before. The implicit conclusion is that specific entrepreneurial education can aid entrepreneurial behaviour. However, Franco *et al.* (2010), in their study of students' entrepreneurial intentions, were more cautious about the impact of entrepreneurship education and stated that it played, at best, a supporting role in encouraging students to behave entrepreneurially, despite acknowledging the contribution that HE as a whole can make. This study was an inter-regional comparison of students'

entrepreneurial intentions in 3 universities from 3 'completely different cultural or economic realities' (Western Germany, Eastern Germany and Central Portugal) and the sample comprised almost 1,000 students from across the academic spectrum and at both undergraduate and postgraduate level. The research method used in the study is unclear (the authors speak of both questionnaires and interviews) and hence it is difficult to explain exactly why, or how, the authors arrived at their conclusions about the low impact of entrepreneurship education.

The research carried out by Phan *et al.* (2002) investigated antecedents to entrepreneurship among university students in Singapore. These antecedent influences included background and experience. The sample used by the authors is large (over 13,000 students) but the authors themselves critique their study in that their sample is based on technology students and hence is not generalizable to non-technology students and I would take that critique further as the students all came from one university and thus all had the same educational experience. Despite these weaknesses the authors' results suggest that educational efforts to encourage entrepreneurship are better aimed at developing the right attitudes and motivations towards being entrepreneurial (they should be practice-based) rather than focussing on entrepreneurial theory.

Interestingly, Stewart *et al.* (1998, cited in Phan *et al.*, 2002) found that:

"While, on average, entrepreneurs were more educated than small business owners, corporate managers were the most highly educated group. This suggests that while content knowledge is important for individuals to take the entrepreneurial plunge, a surfeit of knowledge can lead to risk aversion behaviours that reduce the propensity to engage in entrepreneurial activity" (p154).

In other words, what students learn (content-related) and gain from HE could earmark them for entrepreneurial behaviour and could spur them into becoming entrepreneurs but there is a need to ensure that students do not, through education, become too aware of the potentially negative consequences of risk-taking, autonomous decision-making etc. and as a result take the 'safer' route of management instead of entrepreneurship.

As stated above, Vance *et al.* (2012) commented on the contention that HE can curb nonlinear thinking in students as part of their research to investigate the effect of higher education on thinking styles. They used business major freshmen and seniors at one U.S. university as the participants in their research. The participants completed a questionnaire

that looked at linear/nonlinear thinking styles and that included a measure of entrepreneurial self-efficacy. The freshmen completed the questionnaire within a month of starting their university course and the seniors (a separate group to the freshmen) completed the questionnaire at the end of their four years of study. As a result of the research the authors concluded that....

“...attaining an undergraduate business degree may actually facilitate successful entrepreneurial thinking through building greater linear/nonlinear thinking style versatility and balance” (p136).

However, they acknowledged a number of limitations to their study, including the fact that the participant groups were not the same (a longitudinal study of the same group of students over time could have provided more reliable results). And although the authors were able to point to a stronger linear/nonlinear thinking style versatility and balance in the senior group, they do concede that the variable of student age (and thus cognitive maturation) could have influenced the results. There is no investigation into other non-academic factors that could also have accounted for this difference. So while their findings do point to ‘something’ having caused a change in approaches to thinking, there is no examination of what that ‘something’ could be – and hence their conclusion that business education ‘may’ cause a change.

The reasons why business degrees could facilitate entrepreneurial thinking are clear. If they do cause a change in thinking style as discussed by Vance *et al.* (2012), then alongside the business acumen and knowledge (an understanding of the functions of business) graduates of such degrees will have both the soft and hard skills necessary for entrepreneurship. Franco *et al.* (2010) did indeed find that business administration students had a higher level of entrepreneurial orientation than students from other disciplines. However, Tackey and Perryman (1999) discovered that there was a higher level of self-employment among graduates from creative arts and design degrees than among business students. Does this imply that, while business students are equipped with the necessary skills, thinking styles and content knowledge for entrepreneurship, something prevents them from turning that into entrepreneurial behaviour? This could be explained by the findings of Stewart *et al.* (1998), that too much content knowledge could lead to risk aversion and hence business students not acting entrepreneurially. Similarly, while Vance *et al.* (2012) did find that certain approaches to business education can increase linear/nonlinear thinking style balance they did not investigate whether this ability was then used by their sample to behave entrepreneurially.

The emphasis of this research is the connection between student mobility and the development or enhancement of entrepreneurial attitudes. If higher education does have a role to play in developing students entrepreneurially, to what extent are particular aspects of international higher education, namely exposure to other cultures and environments, of even greater benefit?

2.3.6 The culture debate

Alongside macro-level factors such as those described by Porter (1990) as being conducive to innovation and entrepreneurship within an economy, culture also has a role to play as it helps determine attitudes towards the instigation of self-employment (Vernon-Wortzel and Wortzel, 1997, cited in Morrison, 2000). This importance is emphasised further by Raab *et al.* (2005), who say that:

“The national culture determines the extent to which existing social and cultural norms encourage or discourage individual actions that may lead to new ways of conducting business or economic activities” (p76).

Further, Thornton *et al.* (2011) state that:

“Because societies are endowed by nature with different physical environments, members of society must adopt environmentally relevant patterns of behaviour to achieve success. These environmentally relevant patterns of behaviour lead to the formation of different cultural values in different societies, some of which influence the decision to create new businesses” (p108).

While entrepreneurial behaviour may be thought of as an individual activity, based on individual attitudes and decisions, it is the national culture which determines the extent to which these individuals are persuaded or motivated to act entrepreneurially (Raab *et al.*, 2005); which determines the resources and infrastructure (in a wider sense) that are available to individuals who wish to act entrepreneurially; which determines the environmental and societal framework in which they can act entrepreneurially; and which also defines the success factors against which this entrepreneurial behaviour is measured. This would imply that personality and antecedent or societal entrepreneurial factors are important for a definition but equally important are the national cultural factors which allow the entrepreneurial personality to flourish and that motivate an individual to act in an entrepreneurial manner.

The study conducted by Raab *et al.* (2005) considered and compared the entrepreneurial potential across two cultures (the U.S. and Germany) through the quantitative measurement of ten entrepreneurial characteristics in business students. The students were first year students; one German university was used and three U.S. universities, although the sample size of both nationalities was approximately the same. The results showed that U.S. students exhibited higher levels of internal locus of control, emotional stability and empathy, whereas the German students showed higher levels of need for achievement and team orientation. There was no significant difference across the other five characteristics, leading to the conclusion by the authors that there was no significant difference in the overall entrepreneurial potential between the two groups. This was found to be surprising as the expectation from the researchers had been that the U.S. students would show more entrepreneurial potential – although there is no explanation given as to why this should be the case. This was, admittedly, one relatively small study, and the authors acknowledge some limitations (i.e. the differences in educational systems could account for some of the results) but it is particularly interesting to note that the researchers expected a greater degree of entrepreneurial potential from the U.S. students than from the German students, the implication being that the researchers assumed that one culture was naturally more entrepreneurial than another. This one small study does not refute this assumption as there were, indeed, some differences in the characteristics, but it is another indication of the difficulties of clearly defining what makes an entrepreneur.

Thomas and Mueller (2000) carried out a comparative study across nine countries to investigate the relevance of culture to entrepreneurial development. The nine countries chosen exhibited diverse levels across the spectrum of Hofstede's cultural indices (1980) of power distance, uncertainty avoidance, individualism and masculinity. Using four traits to indicate entrepreneurship (innovativeness, locus of control, risk-taking and energy level) the study investigated whether the prevalence of traits comprising the entrepreneurial profile vary systematically across the nine different cultures, using the U.S. as a base country. The survey used university students from a wide variety of disciplines as the sample. The authors justified the use of students, firstly because it would have been troublesome to find representative samples of practising entrepreneurs from all nine countries and secondly because the use of students ensured a certain level of parity within the sample, at least in terms of age, educational attainment, etc. Not surprisingly, the results of the study were inconclusive; the likelihood of an internal locus of control orientation, of risk-taking propensity and of high energy levels decreased the more culturally distant a country was from the U.S., but the fourth trait, innovativeness, did not vary. The fact that innovativeness did not vary

could be due, as the authors suggest, to its 'universality' but this seems a weak argument to make as many other traits could be argued to be 'universal'. It is interesting that this particular entrepreneurial trait is linked to disruption (or, as Schumpeter said, gives rise to 'creative destruction') and therefore would be expected to be low in countries that exhibit higher levels of uncertainty avoidance and yet the authors do not give an explanation for the lack of variance across the countries. Locus of control varies, according to the authors, because it is linked to individualism – the greater the level of individualism within a culture the more likely it is that individuals will want to exert autonomy and initiative. Risk-taking propensity is associated with uncertainty avoidance and so cultures with high levels of uncertainty avoidance are less likely to encourage riskier ventures as evidenced by the results. More challenging for the authors to explain is the variation in energy levels, and they question whether this has to do with some underlying work ethic in more individualistic societies. The authors conclude that some traits are culturally determined and others are not but this is obviously a very general, minimally substantiated conclusion to draw based on one study.

What is interesting in the above study are the comments from the authors regarding the influence of Western, in particular the U.S., culture on our understanding of what an entrepreneur is. They point out that much of the recent research into entrepreneurship has been carried out in the U.S. and Western Europe (and in their own study they use the U.S. as the base country against which other cultures are measured). Therefore generalising it to cultures where the task and psychic environment may be vastly different is questionable. In their conclusion they further question, indirectly, how true or 'clean' a definition of entrepreneurship can ever be, given that...

“...there is the fundamental issue of whether entrepreneurship and the defining characteristics of the entrepreneur are perceived through an ethnocentric lens. In other words, does our conception of the entrepreneur stem from our exposure to and experience with the American entrepreneur? If so, is it possible that we do not have the language and the tools to identify and track entrepreneurs in other cultures?” (p298).

So the conclusion is that no matter how scientific an approach to defining an entrepreneur is, the definition will always be tinged by the cultural understanding of what an entrepreneur should be, based on one's own society and one's own particular norms.

The connection between aspects of culture, the propensity to act entrepreneurially and certain entrepreneurial traits (e.g. innovation and risk-taking) has been considered by a number of authors (Gupta *et al.*, 2010; Kreiser *et al.*, 2010; Heilman, 2001; Busenitz and Lau, 1996; Shane, 1993; Hofstede, 1980). In the studies undertaken by these authors the results indicate that national cultures (in relation to the cultural indices described by Hofstede) do impact upon the promotion and support of entrepreneurship, i.e. culture does shape individual behaviour and that cultural factors influence individual career choice when it comes to entrepreneurship. This would appear to contradict the findings of Raab *et al.* (2005) although they did only use two countries in their study.

In this discussion of entrepreneurial definitions culture is important on two levels. Firstly, as argued above, it partly determines the extent to which entrepreneurship is valued and allowed to flourish in society and hence it is an influencing factor in how entrepreneurship is viewed and promoted in different societies. Secondly, more fundamental to the research being undertaken here, it is argued that immersion, through study or work abroad, in a new and different culture can enhance and develop certain entrepreneurial skills in an individual. It is therefore not the culture of a nation per se that is relevant for this research (once it is understood how this impacts on our ability to define entrepreneurs, how it defines the entrepreneurial activity within a country and how it can act as a positive spur for entrepreneurship within a country) but rather the impact that exposure to other cultures can have on the development of entrepreneurial skills in an individual.

The relevance of creativity in the definition of entrepreneurs has already been discussed. Creativity is the first step towards innovation and innovative ability is a generally accepted personality trait connected to entrepreneurial behaviour. Leung *et al.* (2008) (and similarly Maddux and Galinsky, 2009) discuss exposure to other cultures and the impact that this can have on an individual's ability to be creative. Their research discusses five reasons why exposure to other cultures can have a positive impact on an individual's level of creativity:

“Multicultural experience may foster creativity by a) providing direct access to novel ideas and concepts from other cultures, b) creating the ability to see multiple underlying functions behind the same form, c) destabilizing routinized knowledge structures, thereby increasing the accessibility of normally inaccessible knowledge, d) creating a psychological readiness to recruit ideas from unfamiliar sources and places, and e) fostering synthesis of seemingly incompatible ideas from diverse cultures” (p173).

Several of the elements mentioned here (destabilizing routinized structures, access to novel ideas, seeing synthesis in incompatible ideas, etc.) can be directly related to the definitions of an entrepreneur as argued by the economic theorists outlined in Section 2.3.2.

Although there appears to be no current evidence that creativity and innovative ability (traits associated with entrepreneurs) are determining factors in the decision to go abroad, the work by Leung *et al.* (2009) certainly indicates that an individual's ability to be creative can be enhanced by a period spent abroad, i.e. improved creativity can be an(other) outcome of study or work abroad. Leung *et al.*'s work is not specific to student mobility but the 2009 paper uses international students currently studying in the U.S. as the basis for the research. While this study has limitations (for example the authors could not show from their data that living abroad causes permanent change in creativity, nor did they account for the possibility that creative people are more likely to live abroad than non-creative people) it nevertheless does indicate that an experience of living abroad, coupled with the positive approaches to foreign cultures, has a strong influence on the prediction of creativity in an individual and creativity, as discussed earlier, is a first step towards innovation. More significantly, Maddux and Galinsky (2009) discuss the points made by Friedman (2005, cited in Maddux and Galinsky, 2009) concerning the connection between internationalisation and innovation, in particular that the 'flattening' of the world makes it imperative for nations and individuals to continuously innovate in order to stay competitive and conclude that the link between multicultural experiences and creativity has important implications for education, business and for government policy.

As Leung *et al.* (2008) point out, culture is a double edged sword, as it consists of a set of learned routines that provide a behavioural framework for individuals, Yet at the same time...

“...when an individual is immersed in and exposed to only one culture, the learned routines and conventional knowledge of that culture may limit his or her creative conceptual expansion” (p172)

This would imply that immersion in another culture would allow creative expansion to take place, and while more research in this area is needed, there would appear to be a link between a period spent abroad and an enhanced level of creativity.

2.3.7 Personality, antecedent and cultural summary

There is no clear conclusion that can be drawn from the above: the only consensus seems to be that a) certain personality traits are exhibited by those individuals who have acted entrepreneurially more so than is evident in non-entrepreneurs; b) there is still debate as to whether these traits can develop or change over time, whether they can be nurtured or influenced through, for example, education; c) even if one possesses these traits, what matters is whether these traits are used to act entrepreneurially, i.e. whether one behaves in an entrepreneurial way; and d) what drives someone to act entrepreneurially can be internal factors (for example the presence of the need for achievement) or external factors such as unemployment, changed personal circumstances, or indeed the culture within a particular society.

2.3.8 The transitory nature of entrepreneurship

I have now considered entrepreneurs in a business context from the personality and antecedent perspective and considered two other factors, education and national culture, which could impact on a person's propensity to act entrepreneurially. I have also touched on the question that is at the core of any definition of entrepreneurship, i.e. whether entrepreneurs are born or made or both. If entrepreneurs are 'born', then there would seem little point in exerting effort in entrepreneurship programmes to develop entrepreneurial behaviour; individuals who are born with entrepreneurial characteristics will behave this way regardless of outside influences. If this were the case it would be possible to seek out such individuals and provide the environment and resources they need to be entrepreneurial but it would be difficult to expand the stock of entrepreneurs, in terms of influencing people to become entrepreneurs, because someone is either entrepreneurial or they are not and there is little that can be done to change this. If entrepreneurs are 'made' then clearly the training, background, education etc. can be provided that is required to encourage people to act entrepreneurially, so the stock can be increased. However, if entrepreneurs can be 'made', then they can also be 'unmade', implying there must be a transitory nature to entrepreneurs and to the skills with which they are imbued.

Yet again, the evidence for or against the transitory nature of entrepreneurship is inconclusive. One argument is obviously that personality traits are stable over time (Robinson *et al.*, 1991a) and that it is those individuals who have these entrepreneurial traits who will act entrepreneurially – those who do not possess these will not act as entrepreneurs, or will not be successful as such. However, many researchers have looked at the concept of cross-situational and cross-temporal consistency in the area of entrepreneurship (Carsrud and Johnson, 1989, cited in Robinson *et al.*, 1991a) and in the

areas of personality and social psychology (Mischel and Peake, 1982 and Shaver, 1987, both cited in Robinson *et al.*, 1991a). Their conclusions indicate an interactivity between an individual and his/her situation, so behaviour will change depending upon circumstances.

Shapero (1984) shies away from discussion on the psychology of entrepreneurs as he believes that entrepreneurs are not born but are developed. His interest lies in the 'entrepreneurial event', i.e. entrepreneurial behaviour, and not so much in the people who undertake this behaviour as his view is that psychological profiles cannot explain the range and variety of individuals who undertake entrepreneurship. Schumpeter (1934), too, emphasised the importance of entrepreneurial behaviour. His view was that:

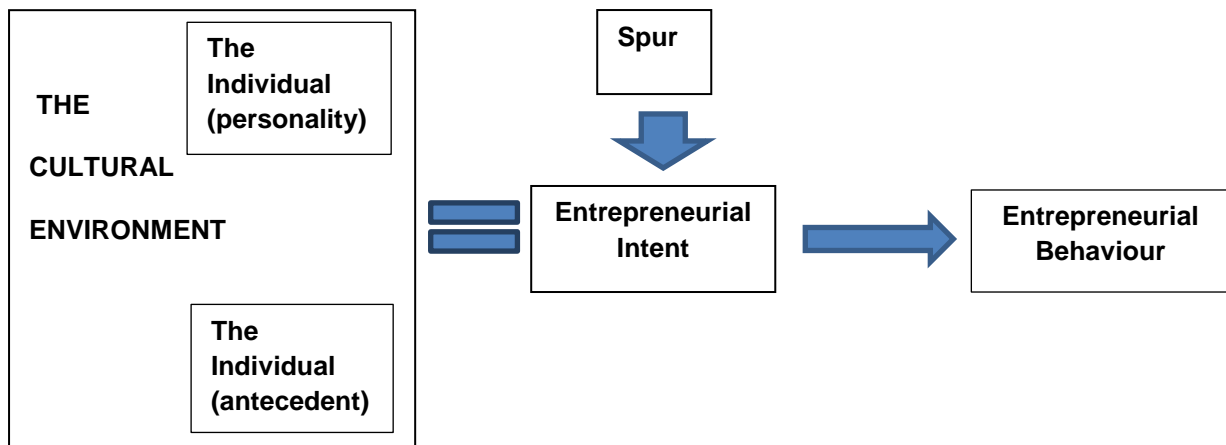
"Everyone is an entrepreneur only when he actually 'carries out new combinations,' and loses that character as soon as he has built up his business, when he settles down to running it as other people run their business" (p78).

So the argument is that entrepreneurship is transitory and what marks someone out as an entrepreneur is not who or what they are, but what they do. This leads us on to a more in-depth analysis of entrepreneurial behaviour and entrepreneurial intent.

2.3.9 Entrepreneurial intent and behaviour

The idea has already been put forward that having the 'correct' entrepreneurial traits is not enough to be considered an entrepreneur, nor is having the 'correct' background or having been subject to the 'correct' antecedent influences. One actually has to *act* entrepreneurially in order to be considered an entrepreneur, possession of the right characteristics is not sufficient, nor is the right background. It is what is done with those characteristics, it is behaviour that determines an entrepreneur, not personality or background. Clearly entrepreneurial behaviour is something that is both visible and quantifiable and, unlike with an 'entrepreneur' we can give a clear cut idea of what we understand under the term 'entrepreneurial behaviour' (e.g. in an economic / business sense this would normally be to do with setting up and running an innovative business). There is also the step before behaviour which is characterised as 'entrepreneurial intent' i.e. the intention to act entrepreneurially at some point in the future. As Liñán and Chen (2009) discuss, entrepreneurial intent is the first step in an evolving and often long process of new venture creation and it is an important precursor to entrepreneurial behaviour; 'intent' as the direct predictor of 'behaviour' (Ajzen, 1991; Walster, 1994). The process towards entrepreneurial behaviour is thus:

Figure 1: The Entrepreneurial Behaviour Process



Source: Author's own

An individual has the 'right' entrepreneurial traits and may have been positively influenced by antecedent and socio-economic factors and by the cultural environment towards entrepreneurship. This leads to intent, the plan to become an entrepreneur in the future. At some point and for whatever reason that entrepreneurial intent receives a spur (this could be one or more events to which an individual reacts - a displacement event which forces an individual to act differently, for example becoming unemployed - or it could be a conscious, planned decision from an individual to act entrepreneurially at this particular moment in time). The entrepreneurial intent is put into practice and becomes entrepreneurial behaviour.

If this is accepted, the argument becomes not one of whether personality can change over time, but of under what circumstances do those who possess entrepreneurial characteristics act entrepreneurially and under what circumstances do they cease to act entrepreneurially. If being entrepreneurial means having success (in terms of profitability and/or growth of a business) then success needs to be gained; it is not enough simply to possess certain characteristics that mark one as being entrepreneurial, one has to use those traits to behave in a certain way so as to create success, i.e. it is not personality traits per se that define entrepreneurship, it is what we do with those traits, the way we act and the way we behave. As King (1985) points out:

"All definitions are retrospective in nature: A person is defined as an entrepreneur because of something done, rather than something they are capable of doing" (p399).

In a similar vein, Cromie (2000) discusses the concept of latent entrepreneurialism, the idea that while some people may possess the personality characteristics outlined above and therefore have the potential to be entrepreneurs, they may not actually do so until spurred on by some external factor or outside event, such as becoming unemployed, or indeed they may never exploit that potential. This implies, once again, the need for an individual to perform or act, before they can be considered entrepreneurial, i.e. entrepreneurial behaviour is what counts and not only the propensity to behave entrepreneurially. In effect, 'entrepreneurship' only occurs when entrepreneurial behaviour takes place: entrepreneurial intent is the precursor to this behaviour (having a positive disposition towards acting entrepreneurially) and personality and antecedent influences together with the macro-environment play a role in producing that entrepreneurial intent.

2.3.10 Entrepreneurial personality and entrepreneurial attitude

Using personality traits as a factor for measuring the impact of study or work abroad on entrepreneurial behaviour is contentious as, according to Robinson *et al.* (1991a) the problem is not so much that there is a lack of psychological characteristics that separate entrepreneurs from non-entrepreneurs, but rather there is a lack of consistent and developed theories and models used to identify such characteristics, implying that the research methods into psychological and personality traits are still flawed. Okhomina (2010) speaks of the personality approach to entrepreneurship as being both unsatisfactory and questionable when explaining entrepreneurial behaviour and performance and concludes that any attempt to use personality as the sole criteria for definition is over-simplistic. His study uses entrepreneurs and thus is based on actual entrepreneurial behaviour, unlike many of the studies reviewed so far, which tend to concentrate on entrepreneurial intent, but the upshot is the same – that whether we are considering actual entrepreneurs or potential entrepreneurs, using a personality approach to explain this is contentious. Chen *et al.* (1998) argue that the...

“...traditional personality approach to the psychology of the entrepreneur experiences a dilemma in that an individual characteristic has to, on the one hand, transcend specific situations in order to be a stable trait and, on the other hand, be unique to the domain of entrepreneurship” (p312).

As previously discussed, there appears to be a number of personality traits which are common in entrepreneurs and also agreement on the constancy of personality traits - evidence from the literature would tend to suggest that these are stable over time (Robinson

et al., 1991; Ajzen, 1988). If we accept that personality traits are stable, then using these to measure the impact of study or work abroad on entrepreneurial development would not lead to any conclusions on how students had been affected by the mobility experience; the traits would either exist or not exist, or be present to some degree or another, and that situation would not be influenced by any environmental change or by a displacement event nor influenced by the passage of time. Caird (1991) also criticises trait approaches to measuring entrepreneurial tendency as being simplistic because they ignore the influence of external events on entrepreneurial behaviour.

If, therefore, using either personality or demographic / societal influences leads to inconclusive findings, what other options exist in order to assess the impact of a particular experience on entrepreneurial propensity? Krueger *et al.* (2002) stated that personal and situational variables could have an impact on entrepreneurship through influencing an individual's key attitudes and general motivation to act, so perhaps entrepreneurial attitude is a more reliable measure of entrepreneurial propensity.

Entrepreneurial attitude is alluded to at length in the literature. Athayde (2009), using the social psychology definition of attitude as a predisposition towards a particular object, including abstract constructs, states that:

“The concept of ‘attitude’ is more dynamic than that of ‘trait’ as attitudes are responsive to external objects and are capable of change” (p482).

According to Florin *et al.* (2007) attitudes can change and can be influenced through education and in an environment that promotes and fosters entrepreneurial activity. They are ‘learned dispositions’ and, as such, can also be ‘unlearned’ or changed. Similarly, Phan *et al.* (2002) posits that students who are introduced to the concept of entrepreneurship at an early stage can develop positive attitudes towards starting a business and being entrepreneurial. Robinson *et al.* (1991) also viewed attitudes as being less stable than personality traits; they can change over time and across situations (i.e. they are influenced by the environment). This view is supported by Ajzen (1991), who describes attitudes as being more ‘malleable’ than personality traits. He states that unfolding events and new information about an issue can affect how we evaluate the issue, whereas personality traits are much more resistant to change. The inference, once again, is that a particular experience, such as study or work abroad, could influence the attitudes that students have towards being entrepreneurial now or later in life.

Furthermore, attitudes are multidimensional in the sense that they are made up of three components: a cognitive component, an emotional (affective) component and a conative (behavioural) component and these can be verbal and non-verbal. The cognitive component consists of the beliefs and thoughts someone has about an object (e.g. "I believe that smoking is bad for me), the emotional or affective component is the feelings and emotions one expresses about an object ("I feel relaxed when I smoke") and conative or behavioural components are how someone (re)acts to the object ("I smoke / do not smoke"). Attitude is thus a combination of these three components - a tripartite model consisting of feelings, thoughts and the intention to behave in a certain way - and, according to Florin *et al.* (2007), it can be better understood when all three components are considered simultaneously.

Therefore, we can consider using an attitude approach to investigate the impact of mobility on entrepreneurship. Using a measurement scale, such as Likert, to evaluate attitude is a common way to obtain information from respondents, particularly as attitude is inaccessible to direct observation and must be deduced from measurable responses (Ajzen, 1988). In order to understand how attitude measurement can be used for this research, we need to be familiar with Ajzen's work on attitude in his Theory of Planned Behaviour.

2.3.11 The Theory of Planned Behaviour

Ajzen's Theory of Planned Behaviour (TPB) originated from the Theory of Reasoned Action (Fishbein and Ajzen, 1975). The Theory of Reasoned Action connects behaviour and intention to carry out that behaviour through attitude. Ajzen (1988) defines attitude as...

"...a disposition to respond favourably or unfavourably to an object, behaviour, person, institution or event....most contemporary social psychologists seem to agree that the characteristic attribute of attitude is its evaluative (pro-con, pleasant-unpleasant) nature" (p4).

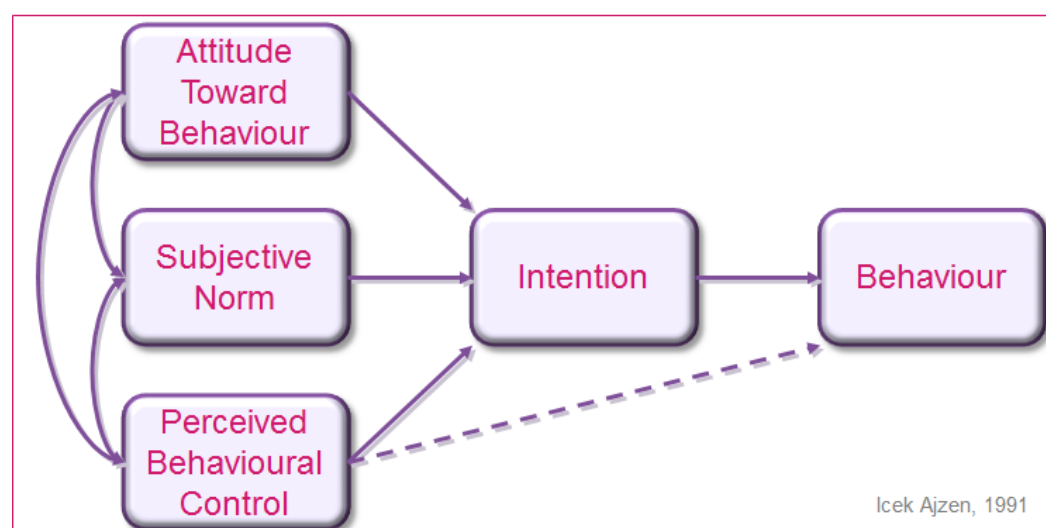
In the Theory of Reasoned Action, attitude is both used for the act itself (attitude towards the act or behaviour) and for the subjective norms (attitude towards the evaluation of the behaviour by an important peer group of the individual). If both of these are positive, the motivation to carry out that behaviour is high, which leads to a stronger intention to perform said behaviour.

Ajzen later argued (1988, 1991) that this theory assumed that most human behaviour was under volitional control, whereas in reality this was not always the case. An individual's

beliefs about the presence of factors that could influence the performance of the behaviour and the extent to which one can control these factors – perceived behavioural control – also plays a role in intention to perform a particular behaviour. Adding this perceived behavioural control element to the Theory of Reasoned Action gives Ajzen's TPB.

Ajzen split the perceived behavioural control (PBC) into two sub-elements: perceived self-efficacy, and perceived controllability. Perceived self-efficacy (based on Bandura's 1977 work) is a person's belief in their ability to carry out a particular behaviour through their perception of the ease or difficulty of that behaviour (their confidence in their ability). Perceived controllability is the belief about the extent to which performing the behaviour is controlled by the actor (volitional or non-volitional control over the factors and process which make up that behaviour). There is debate in the literature as to what degree these two sub-elements are linked through self-efficacy and locus of control (Chen *et al.*, 1998; Ajzen, 1991) and the relevance of this debate for the purposes of this research will be discussed below. The TPB is shown below:

Figure 2: The Theory of Planned Behaviour



Source: Ajzen, 1991

Krueger and Brazeal (1994) discuss these three key factors that predict intention and possible behaviour: the attitude towards the act - the positive or negative, intrinsic and extrinsic personal outcomes; the subjective attitude - the attitude towards the influence of third parties such as peer or reference groups upon an individual, and thus the propensity to act or not; and the attitude towards perceived behavioural control - the perceived feasibility of carrying out the behaviour. In terms of entrepreneurship these three factors are:

- a) Attitude toward entrepreneurship (the 'behaviour'): how positive or negative the individual is about being an entrepreneur
- b) Attitude toward the norm: the perceived social pressure to become an entrepreneur
- c) Perceived behavioural control: this covers both the perceived ease or difficulty of becoming an entrepreneur (perceived self-efficacy) and the perceived ability to control the process (perceived controllability).

Presley *et al.* (2010) test TPB as a predictor of intention in their study of business students' decision to study abroad. Using primarily business major students across all undergraduate levels from one U.S. university, Presley *et al.* developed and administered a questionnaire specifically designed to measure four variables: the attitude towards studying abroad; the subjective norm impact on the decision to do so; PBC; and the intent of these students to study abroad. The study has a number of weaknesses, most of which are recognised by the authors, including the fact that all the students are from similar disciplines and from one university hence limiting generalizability of the results. The results of the questionnaire indicate that subjective norm, attitude and PBC all influence a student's intention to study abroad but, once again as the authors acknowledge, this 'intention' does not necessarily mean that these students will undertake study abroad. So the model as used here does not signify behaviour, but the authors nevertheless concluded that TPB was a useful tool in understanding the determining factors for a student's intention – and as we have seen, intention is a precursor for behaviour. Similarly, the study by Shook and Bratianu (2008, discussed in Section 2.3.3) also used the TPB, also had similar limitations and also concluded the model had some use in determining entrepreneurial intention.

Liñán and Chen (2009) use a variant of the TPB model, the Entrepreneurial Intention Model, to measure entrepreneurial intentions in students in two separate countries (a cross-cultural study in Spain and Taiwan). Specifically, their 'behaviour' in the model is entrepreneurial and the 'intention' refers to the effort that an individual will make to carry out that behaviour. The authors argued that the subjective norm factor could positively or negatively impact both the attitude and perceived behavioural control but could not conclusively confirm this from their results. The study was carried out primarily among business (and related discipline) students and the authors concluded firstly that the model could measure entrepreneurial intent across different cultures, and secondly that the process from perception of entrepreneurship to entrepreneurial intent is similar across different cultures. This latter conclusion is perhaps not so surprising as it could be argued that business students, regardless of cultural background, would probably have similar levels of entrepreneurial intent due to their business acumen and knowledge. What is interesting from the above study, however, is not

so much the study itself, but the use of TPB to test hypotheses about entrepreneurial behaviour across two groups, and the role that attitudes play in this research; thus this study involves two elements that are useful to my research – the use of ‘attitude’ as the variable and the comparison of groups.

A number of studies have used TPB to attempt to explain entrepreneurial intent and Presley *et al.* (2010) have used it to look at mobility intent. The conclusions from these studies all show that the model is a useful tool but what the model does not do is to show how individuals move from intent to behaviour. One other aspect of the model that is contentious is that of the subjective norm aspect and the extent to which this impacts upon intent.

The subjective norm

As already stated the subjective norm (SN) is the extent to which an important referent for an individual (for example a peer group) influences that individual’s decision making and also the extent to which an individual feels a motivation to comply with the referent’s wishes. Ajzen (1991) himself concluded that SN contributed very little to the intention to undertake certain behaviours. Shook and Bratianu (2008) found that SN was negatively associated with entrepreneurial intent (but did discuss that this could be because of the unique context of a post-communist society in which their study took place). Liñán and Chen (2009) speak of the ‘traditionally weak role’ of SN in the TPB and give examples of studies where SN has not been used because of its non-significance. On the other hand Presley *et al.* (2010) concluded that a student’s mobility intent was indeed affected by the approval / disapproval of important peer groups but they do concede that this is not entirely unexpected – according to them young students are likely to seek the support and approval of respected peer groups when taking a decision to study abroad.

It is interesting that in the studies discussed above those dealing with entrepreneurial intent are ambiguous about the importance of SN, whereas the mobility study shows that SN is influential upon intent. It would seem that the role and relevance of SN is situation-dependent (and, in the case of the mobility decision, perhaps also age-dependent). Peer pressure could be of particular relevance in the case of an entrepreneurial family (e.g. self-employed parents) and the impact that this has on an individual and it could also affect an individual’s attitude towards their employment status. However, my research is primarily concerned with students once they have already made the decision to go abroad, after any subjective norm influence has occurred. As a result for the purposes of this research the SN is not considered as contributing to any change in attitude brought about by the ‘event’ itself, i.e. the mobility.

2.3.12 Entrepreneurs in a non-business context

The discussion so far has concentrated on defining entrepreneurs within the context of the business world, i.e. entrepreneurs are people who use their talents in the business world to start and grow new, innovative companies. This is because there is a strong tendency in the media and in the literature to automatically associate entrepreneurs with setting up and developing businesses. Most of the literature and research concerning entrepreneurial behaviour has centred on placing and observing the entrepreneur in the business context - the entrepreneur is a special type of business person. Boyett (1997) traces this association to the birth of the entrepreneur as a recognised species within economic theory:

“When Richard Cantillon defined the ‘entrepreneur’ in 1734 he was concentrating on the role of the individual within business markets.....[such] early writings shaped the interpretation of the entrepreneur as an individual owner of a private firm expecting to benefit directly from the entrepreneurial profits of their labours” (p77).

This is possibly because the business world is an ideal environment in which to make full use of entrepreneurial traits, i.e. need for achievement, risk-taking propensity, innovativeness and the need for control and autonomy can all be played out and exercised successfully through starting up and running an innovative business. But entrepreneurs can exist in other forms of business and indeed in other walks of life. Boyett (1997) talks of innovative managers as entrepreneurial, of Pinchot’s intrapreneur and of entrepreneurial activity as “not the sole domain of the small business owner.” His article is based on research into the concept of entrepreneurs in the public sector, in education and in health. Many of the characteristics associated with business entrepreneurs are also evident in the more senior managers in the public sector. For example, according to Boyett (1997):

“An entrepreneurial vice-chancellor [at a university] takes risks, backs hunches, creates and seizes opportunities....but they must also be a motivator and leader, creative resource investigator, communicator and ambassador” (p80).

One could argue that the public sector (in the U.K. at least) also operates within a business context and that the entrepreneur is as much at home here as in the more traditional small start-up, but public sector’s primary function is not, as in the private sector, to achieve a profit. Thus we do see here the notion that to be entrepreneurial doesn’t necessarily mean setting up an innovative business for profit. Entrepreneurs are...

“...agents of change, growth and development since they involve themselves in accelerating the generation, dissemination and application of innovative ideas. They ensure the efficient use of resources and expand the scope of economic activities” (Ogunleye, 2012 p145).

If entrepreneurs are ‘agents of change’ such activities can take place both within and outside of mainstream (for profit) businesses.

The entrepreneurial behaviour considered here takes place within a legal environment. The assumption is that businesses are run and activities are performed according to the laws and legal requirements of society. Goss (1991), however, discusses entrepreneurial behaviour that takes place on the fringes of society in the so-called grey and black economies, where the behaviour verges on the illegal but which can, nevertheless, be deemed as entrepreneurial. Similarly, Fadahunsi and Rosa (2002) look at entrepreneurial behaviour within the context of illegal cross-border trade in Nigeria. Schultz (1980, cited in Chell *et al.*, 1991) was one of the first to widen the notion of entrepreneurship as being more than purely business oriented, i.e. that entrepreneurial behaviour could be exhibited by people not involved in business:

“At any point in a person’s lifecycle he or she may, due to changes in economic circumstances, become entrepreneurial. Entrepreneurial ability is ‘the ability to reallocate their services in response to changes in the value of the work they do’” (p25).

Schultz’s argument is that some people are not inherently entrepreneurial but that economic changes spur them into acting entrepreneurially in fields that are not necessarily business-related. Franke (2002, cited in Brandl and Bullinger, 2009) declares that entrepreneurship goes beyond establishing new enterprises and that it has spread into all areas of life and indeed is now talked about in other forms of life, albeit intermittently. Bruyat and Julien (2000) argue that qualities such as risk-taking, the pursuit of opportunities and innovation are to be found in individuals outside of a business context, for example in sport, art, science, etc. They point out that, by using such characteristics to define entrepreneurs, Picasso and Einstein (among others) could also be considered as entrepreneurs.

By using a wider definition of entrepreneurship, that given by Anderson (1995 and 2000, cited in Smith and Christou, 2009) as the “creation and extraction of value from an

environment” Smith and Christou (2009) discuss entrepreneurship in the context of pimping and prostitution and admit that this definition suits their study precisely because it is vague and ambiguous in nature. However vague and ambiguous the definition of entrepreneurship is, from prostitution and other illegal activities, through the arts and science to the public sector, entrepreneurial behaviour is evident and more widespread than in a purely business context.

2.3.13 Summary of arguments

A number of conclusions can be drawn from the above arguments surrounding the definition of an entrepreneur, with his/her ‘elusive nature’ (Caird 1993):

1. There is no doubt that entrepreneurship, however defined and in whatever form, plays an important role in an economy.
2. Entrepreneurship is usually considered as a phenomenon that takes place within a business context and with certain accepted measures of success (profit and growth), but it can and does take place in other walks of life.
3. There is no clear definition of what constitutes an entrepreneur particularly in terms of personality or an explanation of what causes entrepreneurial behaviour.
4. Some of the more common personality traits associated with entrepreneurs are the need for achievement, internal locus of control, self-efficacy, confidence, determination, risk-taking propensity, tolerance of ambiguity, innovative ability and creativity.
5. What is clear from the discussion of entrepreneurial traits is that many of these traits are not 'stand-alone' traits. There is overlap and impact between them. For example, creativity is a pre-cursor for innovative ability, both of which are linked to risk-taking; self-efficacy is linked to tolerance of ambiguity, as is confidence; and achievement motivation covers a number of other traits, such as determination, perseverance, etc. What this implies is that, while we may label traits as single entities, in reality each human trait can be a combination of, and linked with, a number of other traits.

6. Arguments exist that personality traits do not change over time and that they are not subject to external influences, hence using these as a basis for measuring the impact of an event is impractical.
7. The use of antecedent / societal factors to define and recognise entrepreneurs is controversial.
8. (Higher) education is seen by some as an important factor in the development of entrepreneurial skills and can contribute to entrepreneurial tendencies, but there is no clear evidence to suggest that one particular academic discipline leads to more entrepreneurial behaviour than other disciplines.
9. (National) culture can affect the definition and emergence of entrepreneurs and is therefore important on two levels: it impacts on how entrepreneurship is viewed in a society and thus how it is supported, promoted and resourced and it impacts on how an individual behaves.
10. Entrepreneurship can be a transitory phenomenon. An individual is only an entrepreneur when s/he acts entrepreneurially, entrepreneurial behaviour is what counts. Entrepreneurial behaviour arises out of entrepreneurial intent and entrepreneurial intent is influenced by an individual's personality or attitude, their antecedent or societal influences and by their environment (and, in some cases, by their peer/reference groups, i.e. the subjective norm).
11. Attitudes are malleable and influenced by actions and the environment and are arguably a more reliable indicator of potential entrepreneurial behaviour than personality traits.
12. The Theory of Planned Behaviour applied to entrepreneurship can be used to indicate entrepreneurial intent in an individual. However, there are question marks over the role of the subjective norm in the model, with varied views on its relevance. In this research I am interested in students who have already taken the decision to study or work internationally and therefore the influence of any referent group is no longer applicable at this stage. Therefore I have disregarded the use of the SN for my research.

In short, we have seen the inherent diversity that exists in the field of entrepreneurship. The conclusion could be similar to Cochrane (1969, in Chell *et al.*, 1991) who states that:

“Students of entrepreneurship generally have come to agree that while it is a definable function, entrepreneur is a term denoting an ideal type rather than a term continuously applicable to a real person. Any businessman or other official may exercise entrepreneurship, but a classification cannot be devised that would empirically separate entrepreneurs from non-entrepreneurs” (p2).

Gartner (1990) sums it up:

“Entrepreneurship is a very complex idea....We need to be aware that when we talk about entrepreneurship we carry around a wide range of beliefs...What we must all be concerned about is making sure that when we talk about entrepreneurship we recognize that it has different meanings attached to it” (p28).

For the purposes of this research it is necessary to accept that there are many different interpretations of what an entrepreneur is and that the concept is still vague. It is impossible to derive a single definition from the above discussion (and others elsewhere in the literature) and therefore some degree of compromise in any definition used in this research has to exist.

When using personality characteristics to gauge entrepreneurship, two issues are important: firstly, personality itself is a complicated phenomenon and therefore ‘attitude’ is a more trouble-free concept to use, and secondly, many of the characteristics discussed in the literature review are interlinked with other characteristics.

2.4 The connection between an entrepreneur and international student mobility

Having separately considered the literature surrounding both international education (in particular student mobility) and entrepreneurship and drawn conclusions from both, we can now consider the similarities and connections between the two fields.

2.4.1 International knowledge and skills as a pre-requisite for entrepreneurship

Kirpalani and Gabrielsson's (2004) contention is that, at the very least, the subject of International Business should be taught on entrepreneurial courses within higher education. Their reasoning is that no business, no matter how small, works in isolation in today's global environment and therefore every business or organisation is open to some form of internationalisation or another. While the level of international engagement can vary greatly across firms of different sizes as well as across industry sectors the implication is that students who either set up their own business after graduation or who work for an entrepreneurial firm will need to have had some exposure to the international environment, and will need to exhibit innovative, proactive and risk-seeking behaviour that crosses national boundaries.

While Vibhakar and Smith (2004) argue that small international businesses look foremost for basic business skills in their graduate recruits they nevertheless also emphasise the importance of being able to recognise cultural barriers within the international business environment. Their research centred around skills and background qualifications required from new employees by U.S. small international businesses. Using an emailed questionnaire they received data from 108 small businesses which were internationally active. The results showed that business practitioners rated problem-solving and recognising cultural barriers as the top two general business skills required for entrepreneurship. As Vibhakar and Smith state:

“Being able to recognise cultural barriers is built upon experience of being put in different and sometimes difficult situations, exposure to various cultures and objectivity of analyzing situations in an unbiased fashion. The ability to understand one's own ethnocentrism and be able to understand (or at least recognise) a situation from another cultural viewpoint is invaluable to small international businesses” (p64).

Such skills can be developed in a number of ways, but a period spent abroad obviously also fulfils this remit. Daley (2007) reminds us that, while intercultural competences can be

inherited, they can also be attained through learning or interaction in an intercultural environment.

The role of education (primarily higher education) in determining entrepreneurial behaviour is discussed at length in the section on defining entrepreneurs. The argument that higher education could stifle entrepreneurial behaviour and, in particular, creativity has been mooted. A counter-argument, and one that could mitigate for the perceived inflexibility in HE, is that the positive aspects of international HE, such as opening up opportunities, enhancing cultural competence and allowing cultural exchange, building contacts and networks, developing new perspectives, etc. are clearly enhanced by study and work placement abroad. Interestingly, van Auken (2008), in his research on American students undertaking a culture-based international entrepreneurship programme, found that developing a greater understanding of a new culture was positively associated with interest in starting a business after graduation, yet the same students' exposure to foreign business and entrepreneurial skills were associated with a lower interest in starting a business. Leung *et al.*'s (2008) position that exposure to other cultures enhances creativity (and thus perhaps the desire to use that creativity to set up a business) could explain the first finding from van Auken (2008) and Stewart *et al.*'s argument that too much exposure to content knowledge leads to risk aversion could explain the second finding (1998, cited in Phan, 2002).

2.4.2 Entrepreneurial graduates

A lack of research into this area means that it has proven problematic to find evidence of mobile students having acted entrepreneurially in terms of setting up their own business, acting intrapreneurially within companies or being active entrepreneurially in the wider world, in the voluntary sector, for example. The data on employment of internationally experienced students that exist tend to focus not on entrepreneurial behaviour in employment but on either comparisons in employment between mobile and non-mobile students (Teichler *et al.*, 2007; Bracht *et al.*, 2006), on the international employment of mobile students (e.g. Parey and Waldinger, 2008) or on employment of the so-called international students, as opposed to study abroad students. (CIHE, 2008a; Suutari, 2003).

The Global Horizons report (CIHE 2008a) looks specifically at career progression, employment status, salary and the types of organisations employing international students. As previously defined, international students are those students who study for their entire degree in a foreign country. The report states that 19% of international graduates (that is, non U.K. nationals who studied at U.K. universities) who remained living in the U.K. were

either a company owner/founder/partner or in some executive position within a company, compared to 16% of U.K. graduates. Additionally, international graduates who had left the U.K. after graduating were also more likely to state that they owned or had founded or were a partner in their own business than U.K. students. The report gives various reasons why these students might be more entrepreneurially active than non-mobile students, including the assumption that international students are more enterprising anyway, or they would not have chosen to study in a foreign country (in this case the U.K.). It is not unreasonable to suggest a similar argument can be made for shorter term mobile students, but there is little evidence available, as yet, to support this conjecture. The Developing Entrepreneurial Graduates report (CIHE, 2008b) does talk about graduate enterprise in terms of founding/managing fast growth and hi-tech companies but does not distinguish here between mobile, non-mobile or international graduates and the findings of Mora and Vila (2010) would suggest that the numbers of graduates taking up these options are low anyway.

2.4.3 Personality links

The foregoing literature review on definitions of entrepreneurs and on the type of student who undertakes a period abroad throw up many similarities between the two, at least in terms of their personalities. Tolerance of ambiguity and openness (Bakalis and Joiner, 2004), internal locus of control (McLeod and Wainwright, 2009), low levels of ethnocentrism and prejudice (Goldstein and Kim, 2006) are personality traits that have been associated with students who undertake study or work abroad. There is overlap in this list with those traits connected to an entrepreneur:

- Raab *et al.* (2005) talk of individuals who are risk takers taking up opportunities where the outcome is uncertain or could be less advantageous. A mobility opportunity is one in which the outcomes can be uncertain (despite the many potential positive outcomes as outlined above, the study or work abroad situation is clearly more open to uncertainty than studying at home). Tolerance of ambiguity is, in a sense, how one approaches that risk and uncertainty, having a positive attitude towards risk and being prepared to take 'the rough with the smooth' or, as Cromie (2000) says, the extent to which one thrives in uncertain situations. Once again, studying or working in a foreign country involves being tolerant, understanding, patient, etc. in a new environment and often in an unstructured situation and viewing that as a positive experience from which one can learn.

- Having an internal locus of control implies believing that one can steer one's own fate. The assumption from this is that someone with an internal locus of control would be prepared to take risks that others would not take, e.g. be entrepreneurial, as they would feel better able to control those risks (Delmar 2006). Similarly McLeod and Wainwright (2009) conclude that students with an internal locus of control would be prepared to place themselves in unstructured situations, i.e. be prepared to take risks that others (with an external locus of control) would not take.
- Goldstein and Kim (2006) talk of lack of prejudice and ethnocentrism in students who study abroad. Arguably this could tie in with the entrepreneurial characteristics of openness to experience and conscientiousness (Dimov, 2007).
- Other entrepreneurial traits mentioned in the foregoing discussion include self-efficacy, confidence, opportunism, achievement motivation and creativity. While these have not been discussed as personality traits necessarily evident in a mobile student, it could be argued that a certain level of at least some of these traits (e.g. confidence, opportunism) is present in anyone who takes a positive attitude to, and undertakes, a period of study or work in a foreign country as part of their degree.

2.4.4 Antecedent and societal links

There is little discussion of antecedent influences in the literature on mobile students, besides that of socio-economic class. Certainly some of those influences highlighted in the discussion of an entrepreneurial definition (e.g. employment and work history) do not appear as factors that influence the mobility decision either positively or at all. This is not surprising, given that employment and work history are unlikely to have had an impact on students as yet considering their relatively young age. The evidence in the Attainment in Higher Education report (HEFCE, 2009) suggesting that students who belonged to an ethnic minority (in the U.K. at least) are less likely to take up the option of study abroad than students from mainstream backgrounds (also see evidence from the U.S. that suggests a similar situation – Institute for International Education Report 2012) is perhaps more surprising, given that there is evidence, as stated earlier, of entrepreneurial behaviour among ethnic minorities. Socio-economic class and family are factors, however, in as much as those students from wealthier backgrounds are more likely to a) have the financial support to make study or work abroad financially feasible and b) are also more likely to have a history of travelling abroad on holiday and therefore to see a period abroad as a positive

and 'normal' experience. Family background can also play a role in the decision to become an entrepreneur.

2.4.5 Connections and conclusions

Drawing on the above discussion and the conclusions from Sections 2.2 and 2.3 the following points can be made:

1. Both international education and entrepreneurship play a role in society: international education by providing internationally astute graduates who can contribute to a global economy, and entrepreneurship by providing society with individuals who set up and run businesses.
2. There is also a need and recognition, particularly in the U.K., to promote entrepreneurship as a career option for all graduates. Added to this is the evidence that graduates involved in an entrepreneurial enterprise (however defined) need to be internationally and culturally aware – attributes that could be enhanced through mobility. Internationally savvy graduates are needed in entrepreneurial businesses, but so far insufficient research has been carried out to show how active such graduates are entrepreneurially, either by setting up their own businesses or by working in small businesses. Even less research has been carried out into the phenomenon of non-business entrepreneurial behaviour.
3. Intensive research in both fields is a relatively recent phenomenon and in both there are areas of contention and debate. Much of the research from both the mobility field and entrepreneurship field that is reviewed here shows similarities in the use of students in the research samples and results being based on self-reported change. Many of the criticisms of the research cited here (e.g. lack of use of control groups, lack of longitudinal studies, lack of diverse sample groups, etc.) apply to both fields.
4. The literature indicates that entrepreneurs possess certain personality traits and that these personality traits are also found in many students who take the decision to spend a period of their degree abroad.
5. There are questions as to what differentiates individuals who act entrepreneurially from those individuals who do not do so: similarly, there are questions as to what

differentiates a mobile from a non-mobile student. The role of antecedent and societal influences on both is also open to debate.

6. The Theory of Planned Behaviour has been used in both fields of research in order to investigate the concept of attitude – and it is attitude towards entrepreneurial characteristics, rather than the entrepreneurial characteristics themselves, which more useful to measure in my research.

The literature review has revealed a number of connections and similarities between student mobility and entrepreneurship. In particular it has been argued that entrepreneurship is a transitory phenomenon that can be influenced by education or training and by a displacement event, such as unemployment. The purpose of this research is to determine whether or not that 'displacement event' can also include student mobility, so whether student mobility impacts upon the development of a positive entrepreneurial attitude and subsequently entrepreneurial behaviour.

The word 'fuzziness' has already been used to describe the lack of clarity surrounding international education and its benefits and the theoretical and methodological processes used in research within this area. The same word can be used to describe the conflicting views surrounding definitions of entrepreneurs, entrepreneurship and, indeed, the theoretical and methodological processes used in the research in this area as well.

The TPB considers attitude, subjective norm and entrepreneurial intent. While there are criticisms attached to the model, and while my research is not focussed on entrepreneurial intent per se, using concepts from TPB (i.e. the use of attitude as a measurement for change in entrepreneurial skills) is an appropriate approach for my research.

2.4.6 Consequences for my research

The literature review revealed:

1. That there is a lack of knowledge and understanding about whether attitude to entrepreneurship is enhanced by mobility.
2. That there is a lack of awareness about whether mobile graduates are acting entrepreneurially in their lives / careers and whether they attribute any entrepreneurial development to their international experience.

3. That much of the research on entrepreneurship and mobility that used students as the sample can be criticised a) for the sample groups used (students from one university, students from one academic discipline, etc.); b) for the lack of a comparable control group; c) for not comparing 'before' and 'after' effects (of entrepreneurship programmes, of mobility); and d) for not using a variety of research methods to support, underpin, confirm or explain findings.
4. That elements of the TPB are useful in considering how an event such as mobility could impact upon attitude to entrepreneurial intent and entrepreneurial behaviour.

Therefore, my research question needs to address points (1) and (2) and my research design should, where possible, avoid the criticisms described in (3) and consider using elements of TPB to aid my research, as mentioned in (4).

CHAPTER 3: THE RESEARCH QUESTIONS

3.1 Introduction

Fundamentally, my research can be split into two parts because I want to investigate two areas of the 'connection' between student mobility and entrepreneurship. Firstly, I wish to find out if mobility helps to develop more positive entrepreneurial attitudes and whether this, in turn, leads to entrepreneurial behaviour and a convincing way to do this is to measure change using some kind of quantitative scale. Therefore, the first part is a 'quantifiable' part, measuring entrepreneurial attitudes of mobile students (the experimental group) at Time 0 (T_0) before an event (in this case mobility) and then again at Time 1 (T_1) after the event has occurred (upon a student's return). This will measure any change in the attitudes and, by using the same questionnaire on other groups who do not undergo the same experience, provide a base for comparison (they act as a control).

A study that maps change over time is a longitudinal study. Such a study can be retrospective (looking back over historic, secondary data to establish patterns) or in real time. As Langley and Stensaker (2012, cited in Symon and Cassell, 2012) point out, one of the major advantages of a real time longitudinal study is that "neither the researchers nor the participants will be biased by having knowledge of the outcomes" (p152). Such studies can allow causal inferences to be made (Bryman and Bell, 2007) but there are disadvantages and difficulties with longitudinal studies, such as by their very nature they are time consuming, they can be expensive, and there is an obvious need to ensure constancy of participation: sample attrition is a major issue with longitudinal studies (Bryman and Bell, 2007). Despite these disadvantages, because part of my research studies the same group of students at two points in time, it can be deemed to be longitudinal.

For the second part of the research I want to understand how a mobility experience has impacted upon a recently returned student, i.e. to supply an understanding of how and why (from a student perspective) any changes in entrepreneurial attitude have happened. I am also interested in how a mobility experience has impacted upon a graduate's entrepreneurial behaviour in later life, whether they are behaving entrepreneurially in some aspect of their lives and how they perceive the importance/relevance of the mobility experience upon their entrepreneurial behaviour. A qualitative approach is used for collecting this type of data..

Ideally, in order to see the full effect of a mobility experience on a person's entrepreneurial behaviour and to achieve consistency, I would need to track the same group of students from before their mobility experience at university through the years until they have established themselves in their chosen careers. Realistically, within the timeframe of this research this is not possible and therefore my data collection for the graduate study has to be based on a different group of people. I argue that this still provides a relevant set of data from which comparisons can be extrapolated and general conclusions can be drawn: in essence there is no reason why graduates who chose to study or work abroad as part of their degree some years ago should be any different to students who choose to do this today, as my research is concerned with attitude towards entrepreneurship and subsequent entrepreneurial behaviour and is not concerned so much with other factors (such as antecedent influences or macro/environmental/societal influences such as changes in HE policy towards international education) which may have impacted upon the decision to undertake mobility.

3.2 The research question and sub-questions

From the literature review I concluded that there are links between the two areas of my research, entrepreneurship and international mobility. This research investigates certain aspects of those links, i.e. what, if any, difference does a mobility experience make to certain entrepreneurial attitudes, what factors can be cited as having caused any differences and does the mobility experience influence a student's potential to behave entrepreneurially in later life. Based on the above discussions, my main research question is therefore:

“Does involvement in international mobility impact upon student's entrepreneurial attitudes? Does it consequently have an impact on entrepreneurial behaviour among graduates who spent time abroad during their studies?”

This research question can be split into a number of sub-questions as follows:

- 1) Are there any differences between mobile and non-mobile students in entrepreneurial attitude before study/work abroad?
- 2) Is there a change in the mobile students' entrepreneurial attitude pre- and post-study/work abroad? Do students themselves perceive any change in their entrepreneurial personality traits as a result of mobility?

- 3) Is there a similar change in results for non-mobile students over the course of a year?
- 4) If there is a change in the mobile student group, to what do students attribute this change (for example, what factors or events of the experience have caused changes to occur)?
- 5) How has the mobility experience impacted on the lives of graduates? Do they perceive themselves to be acting entrepreneurially in their lives/careers? Do they attribute their mobility experience as defining their (entrepreneurial) behaviour in any way?

3.3 An explanation of the sub-questions

This explanation on the sub-questions outlines the reasons for the sub-questions, but does not discuss why certain data collection methods are used. A discussion on research methodology and the resultant use of particular data collection methods is given in more detail in Chapter 4.

Sub-questions 1, 2 and 3

Combining already existing models for measuring entrepreneurial attitudes with questions developed specifically for this research, both mobile and non-mobile students complete a questionnaire before they go and the same questionnaire again upon their return (for mobile students) or after a one year interval (for non-mobile students). The non-mobile student group is the control group, as they will not undergo the same 'event' (mobility) as the mobile students. The questionnaire contains a section of questions on entrepreneurial attitudes. In addition a section on demographics (age, study discipline, etc.) is included, as is a section with questions relating to entrepreneurial background (e.g. family history of entrepreneurship) and/or entrepreneurial intent in order to make some comparisons between the mobile group and the control group.

The second questionnaire includes extra qualitative questions regarding the student experience. It is not possible, both for practical reasons and within the timeframe of this research, to interview every individual who completes the questionnaire, so these qualitative questions allow for some insight into the student reflections on how they have or have not been affected by their experience (see also sub-question 2). These data are also used to answer the second part of sub-question 2, i.e. whether or not the students perceive any change in their entrepreneurial personality traits. Although the conclusion from the literature

review indicates that personality traits remain stable over time it is interesting to see whether the perception from the students is that their personality traits are not affected by an intervening event.

The non-mobile students act as a control group in as much as they are not exposed to the same variable (mobility) that I am investigating. A control group not only acts as a base measurement, but also without a control group any results from my data analysis can only show correlation, they cannot infer causation (Norris and Gillespie, 2009). I am interested in the level and type of change that takes place in the groups relative to their own particular experience (mobility or non-mobility). If we have a measure for entrepreneurial attitude before the event, then this acts as a base for comparison between the groups. If there is a marked change in the level of entrepreneurial tendencies for the mobile group after the event (mobility) and not in the non-mobile group after the event (non-mobility) conclusions can be drawn as to whether this change was attributable to the mobility experience. For the purposes of my research, I used two control groups: one group of students who did not undertake mobility but who carried out a one year work placement in the U.K., and one group who were studying for a three year degree and who therefore did not undertake either work placement or mobility. Students in the U.K. usually either study for four years, with one year placement or mobility, or for three years with no mobility or placement, therefore these are the obvious groups to use. The mobile group of students consisted of students from a variety of academic disciplines who were either studying abroad, working abroad or undertaking a combination of the two and the reasons for this are explained in Section 4.7. The non-mobile work placement students consisted primarily of business (or related discipline) students, as these make a large percentage of work placement students in the U.K. and there was, consequently, a large potential sample group.

The arguments about mobile students exhibiting a different personality and skill set to non-mobile students before they undertake mobility (i.e. there is no true control group because there are already differences between the groups even before the mobility/non-mobility takes place) as discussed in the literature review is less relevant for my research. This is because I am focussing on specific attitudes towards entrepreneurial traits and changes that take place in both groups due to a specific event and not due to pre-disposed/pre-programmed tendencies towards entrepreneurial behaviour. Any difference in the groups (mobility and control group) in these specific attitudes are highlighted at T_0 , but I am interested in change over time due to an event (or non-event) and not in a direct comparison between the groups.

Sub-question 4

The post-event second questionnaire includes qualitative questions relating to the actual experience of the year, for example what had the largest impact on the students over the time and what was important to them about the experience (where they learnt the most, benefitted from the most, etc.). Recently returned students are also interviewed in-depth to gain an insight into their understanding of why and how any changes have arisen. These two sets of data (interview outcomes and questionnaire responses) give an insight into why any changes might have occurred.

Sub-question 5

This part of the research helps to understand the use that graduates, who participated in mobility, have made of the experience, particularly with regard to entrepreneurial activity. I use semi-structured interviews to allow graduates the opportunity to talk about their mobility experience, their attitude to entrepreneurial behaviour and to allow them to reflect on any connection.

The connection between sub-questions 2, 4 and 5 is that if mobility impacts upon the entrepreneurial attitude of a student and there is a measurable difference between entrepreneurial attitude before and after mobility it would be interesting to find out what impact this has, in later life, on entrepreneurial behaviour and if the student/graduate attributes their entrepreneurial behaviour in any way to their mobility experience or elements of it. Sub-questions 1 and 3 provide a basis for comparison through the use of control groups.

CHAPTER 4: RESEARCH METHOD

4.1 Introduction

This chapter is concerned with the methods I used to answer the research questions and why I chose those methods. The first part of the chapter provides a summary of my research design. I then discuss social science research in the fields of entrepreneurship and international education and provide a justification for the use of a mixed method approach to data collection. This is followed by an explanation of the research process, including more details on the research design and on the sample groups used. Finally, the ethical considerations for this research are provided.

4.2 Research design overview

The five sub-questions discussed in Chapter 3 require different methods of data collection, as sub-questions 1, 2 and 3 are quantitative based and sub-questions 4 and 5 call for a more qualitative approach.

The quantitative method used to consider sub-questions 1, 2 and 3 consisted of an online questionnaire. This was designed around questions on entrepreneurial attitudes but also included sections on demographic data and entrepreneurial background and perceived personality change. As I was interested in measuring change in entrepreneurial attitudes this required administering the questionnaire at two points in time, once before the mobility event (T_0) and once again after the event (T_1). In addition, I used control groups so the questionnaire was altered slightly to accommodate differences in demographic data. In the second questionnaire I also included some questions for the mobile students concerning their experience. The entrepreneurial attitude questions remained the same for both control and experimental groups and at both points in time.

The experimental group consisted of students who were about to spend part of their degree abroad, either studying or working. I used two control groups, one of which consisted of students who were about to undertake a work placement in the U.K. as part of their degree and the other group which was made up of students who would complete their degree in three years without any work placement or study abroad. The rationale for the choice of control groups and of participants is discussed in more detail in Section 4.7

For sub-questions 4 and 5 I interviewed two separate groups of individuals. Sub-question 4 required an analysis of why any changes had taken place, hence I interviewed eight students who had recently returned from study or work abroad and who had also completed the online questionnaire. The data for sub-question 5 was collected through interviews with twelve graduates who were now in the workplace but who had, some years earlier, undertaken mobility within their degrees. Once again, the rationale for the choice of participants is detailed in Section 4.7.

The interview data was used to provide meaning and insight into the mobility experience. For sub-question 4 the interviewees were students who had recently returned from working or studying abroad and who had also completed the online questionnaire, so their view of the experience could help in understanding why any changes in entrepreneurial attitudes had taken place. For sub-question 5 the graduates had all been in the workplace for at least two years and thus had had time to reflect on their mobility experience, on the impact this had had on them and on their lives/careers, so this data contributed to an understanding of the longer term impact of mobility on the individual and on their entrepreneurial behaviour.

An overview of the research process is given in Table 1 below and a more detailed explanation of the process is given in Section 4.6.

Table 1: Research Process Timeline

Time	Action	Sample
Spring 2011 (Pre-T ₀)	<ul style="list-style-type: none"> • Questionnaire design • Questionnaire pilot • Finding samples 	
Sept 11 – Nov 11 (T ₀)	<ul style="list-style-type: none"> • First online questionnaire (Q1) 	Experimental and Control Groups
Dec 11 – March 12	<ul style="list-style-type: none"> • Analysis of Q1 results 	
March 12 - Aug 12	<ul style="list-style-type: none"> • Preparation of interview • Interviews 	Graduates
Sept 12 – Nov 12 (T ₁)	<ul style="list-style-type: none"> • Second online questionnaire (Q2) 	Experimental and Control Groups
Dec 12 – Feb 13	<ul style="list-style-type: none"> • Analysis of Q2 results 	

Jan 13 – April 13	• Interviews	Students
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The online questionnaire was designed and piloted in the first half of 2011 and sent to students to complete (before undertaking mobility) in late Summer / Autumn 2011. The second questionnaire was administered approximately 12 months after the first. The graduate interviews were carried out during Spring and Summer 2012 and the student interviews took place in the Spring of 2013, upon their return from abroad.

The section above gives a brief outline of the research process. In order to understand the rationale behind the research design and the research process, the following sections discuss the philosophical underpinning of social science research and how this relates to research in the fields of international education and of entrepreneurship.

4.3 Social science research

A study of entrepreneurial skills development through international education falls into the area of social science research as opposed to the area of natural sciences. It is important to place this study in some field of research in order to understand the ontological and epistemological paradigms which provide the philosophical underpinning and which govern the manner in which the research is undertaken. Ontology is concerned with the nature of being or reality: epistemology refers to the nature and scope of knowledge and ways in which it can be acquired (see Bryman and Bell 2007, Symon and Cassell, 2012).

My research cuts across at least two sub-sections within the social sciences, that of education and that of business/management. According to Newton Suter (2006):

“Educational researchers approach their work from many different perspectives using many different methods...It is a misleading oversimplification to pigeon-hole the vast array and complexity of educational research” (p40).

Alongside this, Bryman and Bell (2007) state that...

“...business research does not exist in a vacuum. Not only is it shaped by what is going on in the real world of business and management, it is also shaped by many of the intellectual traditions that shape the social sciences at large” (p4).

Both areas of research are a) affected by external factors and b) not detached but incorporate other subjects within the social sciences. These factors impact on my research because they imply that there is no one line of research design or methodology that should be followed. If the process of research can be affected by its type (natural science or social science), by its sub-section (whether it is management research, education research or both) or by outside influences (such as who funds the research for example) then it is clearly problematic to lay out predictive and expected processes for undertaking the research. Tranfield and Starkey (1998) stated that in management research no single agreed ontological or epistemological paradigm dominates. This gives a certain amount of freedom when designing this particular research - not freedom from academic rigour but rather freedom from the constraints of 'accepted' practices of research.

The two extreme stances within research philosophy are that of positivism and interpretivism. In essence...

“...positivism is based on the assumption that there are universal laws that govern social events, and uncovering these laws enables researchers to describe, predict and control social phenomena” (Wardlow 1989, cited in Kim, 2003 p10).

One further definition of positivism is where the investigator is independent of the research and is not affected by nor does s/he affect the subject of the research (Remenyi *et al.*, 1998, cited in Saunders *et al.*, 2000).

At the other extreme, interpretive research...

“...seeks to understand values, beliefs and meanings of social phenomena, thereby obtaining verstehen (a deep and sympathetic understanding) of human cultural activities and experiences” (Smith & Heshusius, 1986, cited in Kim, 2003 p10).

As its name suggests, interpretivism implies the need for interpretation of the complexities of the social world by the researcher – the researcher is not distanced from the study but is, directly or indirectly, part of the study. Easterby-Smith *et al.* (2008) state that...

“...the task of the social scientist should not be to gather facts and measure how often certain patterns occur, but to appreciate the different constructions and meanings that people place upon their experience” (p59).

Both these terms describe philosophical positions and therefore (are supposed to) inform the whole thread of research, from conception through to methodology and methods through to interpreting data and dissemination. In an attempt to explain the various paradigms of research Guba (1990) states that these can be characterized by the way in which their supporters understand three basic questions, which concern firstly ontology (what is the nature of reality?), secondly epistemology (what is the relationship between the researcher and the known/knowable?) and thirdly methodology (how should the researcher undertake finding out about knowledge?). Guba's argument is that there are other philosophical stances that lie between the two more extreme views of positivism and interpretivism and their attendant ontological and epistemological beliefs.

Guba is not alone in his argument. Other researchers (including, Easterby-Smith *et al.*, 2008; Sale *et al.*, 2002; Silverman, 1993) question the apparent lines between these two positions, implying that for much research there can be cross-over of stances. Easterby-Smith *et al.* (2008) state that it is not possible to find any philosopher who believes in and adheres to all aspects of one particular philosophy. Weber (2004) discusses at length his understanding of how the two positions are not mutually exclusive, how much they have in common and how, ultimately, he no longer wants to be labelled as a positivist or an interpretive researcher. He states further:

“It is time for us to move beyond labels and to see the underlying unity in what we are trying to achieve via our research methods” (p120).

Alongside the view that these two extreme philosophies are not mutually exclusive is that discussed by Tranfield and Starkey (1998), that we should not be forced by such ‘norms’ into particular ways of researching, as this limits our ability as researchers to accept and embrace conflict and limits our ability to think across boundaries. If we are not ‘forced’ into following pre-ordained research methods, then that leaves the way open to choose which method best suits the aims of the research and to match practicality with research viability and reliability. As will be considered in Section 4.4.1 this could mean using a mixed-method approach, i.e. more than one research method, perhaps from different underlying philosophical stances, where these together provide a more complete picture for the research question than following one single method or adhering to one particular research philosophy.

4.3.1 Research in entrepreneurship

Entrepreneurship research is still relatively new and emergent (Marques *et al.*, 2012; Busenitz, 2003, cited in Crook *et al.*, 2010) and, as such, researchers are still defining and discussing the boundaries and philosophical underpinning of the field. Research in entrepreneurship tends to focus on the generation of business ideas and opportunity identification, new business creation and growth (Crook *et al.*, 2010; Short *et al.*, 2010), that is the business/management/finance sub-section of the social sciences, whereas research into the entrepreneur is found in many sub-sections, including management, economics, sociology, psychology, anthropology and organizational behaviour. Both entrepreneurship and entrepreneur research are thus interdisciplinary and multidisciplinary. Vecchio (2003) describes these phenomena as 'entrepreneurial traits' research (personality dimensions, psychological drive) and 'entrepreneurial rates' research (environmental influences on start-ups, growth of a business, etc.) and argues that these differences influence the research methods used and also give rise to a lack of cross-over between the two, i.e. 'rates' does not inform or instruct 'traits' and *vice versa*.

According to Short *et al.* (2010), entrepreneurial research undertaken from the management field perspective is often viewed as practical research, geared more towards, and for the use of, practitioners than for academics. Similarly, Leitch *et al.* (2010) argue that researchers in entrepreneurship tend to be more concerned with the practical nature of their studies and how to collect data rather than with philosophical assumptions that underpin their studies.

The practical nature of much entrepreneurship research to-date, coupled with the range of fields entrepreneurship envelops, does draw criticism that it...

“...dissipates the focus of entrepreneurship research into a fragmented potpourri....that is constraining both the field's scholarly development and its credibility as an academic discipline” (various, cited in Leitch *et al.*, 2010 p2).

Similarly, Neergaard and Ulhoi (2007) claim that entrepreneurship is considered by some to be a field lacking in methodological diversity and rigour and Bygrave (2007, cited in Neergaard and Ulhoi, 2007) points out that the entrepreneurship paradigm has not yet developed its own distinctive methods and theories, borrowing these from other sciences. Nevertheless, Leitch *et al.* (2010) argue that because entrepreneurship is varied and complicated there is a need for researchers to draw on diverse ontological and epistemological positions and to use a range of theoretical and practice traditions from both the social sciences and humanities.

Criticisms of research in the field of entrepreneurship include a lack of high-calibre qualitative research using a variety of methods as examined by Hindle (2004), who states that there has been an ‘explosion’ of qualitative methods used in other fields within the social sciences in recent years, but not in the field of entrepreneurship. Other criticisms include the use of relatively small (and thus unrepresentative) samples which are often self-selected, lack of the use of control groups, little longitudinal research and a failure to take into account context, in particular in the field of entrepreneurship education and training research (Athayde, 2012; Levie *et al.*, 2009). Many of these criticisms apply to the studies considered in the literature review, in particular the fact that much of the research follows a quantitative path, which does not provide much opportunity for investigating and providing explanations for the results.

The implication of the above arguments is that within the field of entrepreneurship research there is no one paradigm, there is no specified ontological or epistemological stance and no correct or incorrect methodology that must be followed. Indeed, Tranfield and Starkey (1998) argue that management research as a whole has no agreed core theory or accepted paradigm within which every researcher operates. That is not to say that researchers have a free rein to undertake research however they see fit: the accepted requirements for reliability, validity, integrity, ethical codes of practice, etc. apply here just as much as in any other field and manner of research. Certainly when using interpretivist approaches to entrepreneurship research Leitch *et al.* (2010) stress that it is the researcher’s responsibility to ensure that the reader is provided with enough information on the design of and process of the research so that the integrity and rigour of the process can be assessed.

4.3.2 Research in international education

International education as a research domain is also relatively new and also encompasses many sub-sections within the social sciences, including management, education and sociology. As such, it is comparable to the field of entrepreneurship research reviewed above. Another similarity is that, from the literature reviewed, it is not possible to discern any one clear paradigm of inquiry, definitive ontological or epistemological views or prescribed methodologies. As van Hoof and Verbeeten (2005) point out:

“The study of international education has started to move from a purely theoretical and conceptual approach to a more analytical approach” (p54).

This implies that the field is in a state of flux. They also talk of the need for more quantitative and qualitative research in the field and for the wealth of anecdotal evidence that indicates the benefits of international education to be supported by hard facts.

The research and studies that comprise the international education literature throw up a number of methods that are used by researchers in the field, from the full spectrum of quantitative and qualitative methods, including questionnaires (Daley, 2007; Dwyer, 2004), semi-structured interviews (Daley, 2007), literature reviews (Kehm and Teichler, 2007) and use of the Delphi technique (Hunter *et al.*, 2006). Once again, this would imply that, as with entrepreneurship research, a researcher must operate within the parameters of accepted practice with respect to validity, reliability, integrity, etc. (Schofield, 2007; Creswell and Miller, 2000) but that the philosophical underpinning for the research and how the research is carried out is not prescribed by a particular stance. As stated above, there is a wide variety of research methods used in the studies discussed in the literature review but one of the criticisms that can be levied at the field as a whole, as with entrepreneurship research, is the lack of the use of more than one method that would produce data sets that enable both positivist findings and interpretivist explanations.

4.4 Quantitative and qualitative data

The ontological and epistemological discussion determines the methodology used in research. A positivist research approach is supported by the use of quantitative methodology and the collection of quantitative data. Quantitative research is...

“...research aimed at testing hypotheses with numerical values rather than explaining complex phenomena through verbal descriptions” (Newton Suter, 2006 p41).

With quantitative techniques, Denzin and Lincoln (1994, cited in Sale *et al.*, 2002) point out that...

“...the goal is to measure and analyze causal relationships between variables within a value-free framework” (p44).

An interpretivist approach tends to be reflected in the use of qualitative methods and data, where qualitative research is defined as...

“...research aimed at explaining complex phenomena through verbal descriptions rather than testing hypotheses with numerical values” (Newton Suter, 2006 p41),

therefore the emphasis for qualitative research is on understanding and meaning. Methods used in qualitative research include in-depth individual interviews (structured, semi-structured or unstructured), case studies and focus groups, i.e. interviews carried out in smaller groups. These techniques are used not because a researcher wishes to use the results as representative of larger groups but because they can provide important, focussed information for particular situations.

Because positivist and interpretivist stances are, on the surface, at opposite ends of the research spectrum it would follow that the quantitative and qualitative methodologies that support these two stances would also be distinct and discrete. However, Sale *et al.* (2002) put forward a number of arguments for a mixed-method approach to research, not least of which is that both methodologies have the same ultimate aim, that of providing a greater understanding of the world in which we live and providing knowledge for practical use in that world. Brannen (2005) defines mixed methods research as...

“...adopting a research strategy employing more than one research method. The methods may be a mix of qualitative and quantitative methods, a mix of quantitative methods or a mix of qualitative methods” (p4).

In social science fields where we are dealing with multifarious phenomena from a number of research areas there is a need to have data from a range of sources and from a range of perspectives in order to increase our understanding. Indeed Sammons *et al.* (2005) argue that a range of research methods is justified in situations where complex social contexts require analysis with multiple and diverse perspectives. This latter point is particularly pertinent in the fields of entrepreneurship and international education – fields which are complex but where much of the research is one dimensional.

In all the discussion about ontologies, epistemologies, paradigms, etc. it is easy to lose sight of the essence of research. In the midst of debate about mixed-methods research Howe (1988, in Sale *et al.*, 2002) makes the point that researchers should do what works, i.e. that there is a need for pragmatism in research – the pragmatic worldview as described by Creswell (2009). This perhaps is the reason why much research into entrepreneurship is of a practical nature. This pragmatism, while accepting of the differing philosophical stances, stems from an understanding that sometimes, in order to achieve the research goals, it may

be necessary to use a variety of methods. A combination of quantitative and qualitative methods and techniques is now viewed as rational and justifiable in some circumstances (Howe, 1992).

Continuing in this pragmatic vein Moore (2006) argues that there are some phenomena in life that simply are not quantifiable and measurable (e.g. the impact of university education on an individual's life) and that we therefore need to be realistic and practical in our approach to gaining more understanding and insight into these phenomena:

“We should simply accept that some things are beyond our capacity to measure satisfactorily. In their place we should accept surrogates, subjective judgements or broad assessments rather than try to obtain finely graduated measurements” (p19).

Brannen (2005) talks of the need for pragmatism in terms of the resources available to the researcher and the feasibility of using particular methods within certain projects: the need for pragmatism is certainly true within the research framework and academic requirements for this PhD.

One further argument put forward by Brannen (2005) for the use of mixed-methods is that while the main research questions might be underpinned by one particular epistemological assumption the sub-questions might be underpinned by another – hence the need for mixed methods.

Conclusions? There is little evidence to suggest that any one ontological, epistemological or methodological stance should be applied to this area of research. Therefore the argument for a mixed method approach can be made, and the use of both qualitative and quantitative techniques can be justified. Pragmatism should play a large role in the design of the methodology for this research and it may well be the case that the aims of this research cannot be fulfilled using any one particular technique and that multiple methods that support, complement or provide different perspectives can be employed.

4.4.1 Research design: Use of a mixed method approach

According to Creswell (2009):

“Truth is what works at the time. It is not based in a duality between reality independent of the mind or within the mind. Thus, in mixed methods research,

investigators use both quantitative and qualitative data because they work to provide the best understanding of a research problem” (p11).

In order to discover whether student mobility brings about certain changes in individuals who undertake it and whether those changes are partly causal to future entrepreneurial behaviour, my research methods need to involve both quantitative instruments (to ‘measure’ change) and qualitative instruments (to understand and explain the causes of and consequences of that change). These requirements would justify the use of a mixed-method approach to my research.

As stated earlier mixed method approaches involve employing a research strategy that uses more than one research method, either integrating quantitative and qualitative methods, or a mix of qualitative, or a mix of quantitative methods, in order to investigate the same underlying phenomenon (Leech and Onwuegbuzie, 2009). This can be done as a means of triangulation (to validate data sets) or complementarity (as a means of connecting data) or as a means of reinforcing results (results from one set of data are used to inform or design or understand another set of data). A definition of triangulation is given by Curtis and Curtis (2011):

“Triangulation is the use of more than one method to double or cross-check the collected and/or partially analysed data from another method” (p289).

Complementarity is about connecting and integrating data. With this...

“...methods are chosen on the basis of their ability to answer a specific part of the problem or because their combination might give a better sense of the whole. The assumption behind this approach is that because qualitative and quantitative approaches address different levels of inquiry, any mixed methods study should play to their different strengths” (May, 2012 p2).

As stated above, I have chosen to use a mixed method approach for my research, as I believe that this approach best fits my research aims and it provides the opportunity to produce a more complete picture of the issues under investigation. My mixed method approach involves the use of an online questionnaire to provide quantitative data to measure change and interviews to provide qualitative data to help understand the mobility experience and give insight into what causes change.

Creswell (2009) outlines a number of strategic procedures for mixed methods research, two of which are used in my research. Firstly, in sequential mixed methods the...

“...researcher seeks to elaborate on or expand on the findings of one method with another method...[e.g.] the study may begin with a quantitative method in which a theory or concept is tested, followed by a qualitative method involving detailed exploration with a few cases” (Creswell, 2009 p15).

In as much as I am using interviews with students upon their return from abroad to endeavour to give insight into some of the quantitative results, my methods can be deemed partly sequential.

The second strategy, concurrent mixed methods, is where the various research methods used are carried out concurrently:

“In this design both forms of data are collected at the same time and then the information is integrated in the interpretation of the overall results” (Creswell, 2009 p15).

In as much as I am interviewing graduates in the work place to obtain their reflections on their time abroad at the same time as investigating changes resulting from a mobility experience, and using both of these methods to explain and interpret the overall phenomena of mobility and its impact on entrepreneurship, my methods can be deemed partly concurrent.

4.5 Validity and reliability

“Research needs to be defensible to the research and practice communities for whom research is produced and used. The arbiters of research quality will be the research stakeholders” (Onwuegbuzie and Johnson, 2006 p48).

As this statement suggests, research needs to be defensible not only in terms of how it is carried out, but also in terms of how it is interpreted, explained and disseminated.

Both quantitative and qualitative research methods are bound by the premise, not only of defensibility, but also of credibility. In quantitative research, defensibility and credibility are

covered by the concepts of validity and reliability. Reliability refers to the consistency of the measure of a concept (Bryman and Bell, 2007; Saunders *et al.*, 2000) and validity concerns the integrity of the research conclusions (Bryman and Bell, 2007). Validity can be external (the extent to which the research results can be generalised to other people/cases/situations) or internal (the extent to which a causal conclusion from a study is warranted) (Easterby-Smith *et al.*, 2008). In qualitative research, the term credibility is used to cover the idea of internal validity and transferability is similar to external validity. Dependability covers the concept of reliability and confirmability concerns objectivity (the idea that while complete objectivity is difficult to achieve, the researcher can show that s/he has acted in good faith and has minimised, as much as possible, personal values or theoretical inclinations from influencing the process and the outcome of the research) (Bryman and Bell, 2007).

Mixed method research suffers from the inability to combine the premises outlined above, as it involves the mixing of both qualitative and quantitative methods, approaches and concepts that have complementary strengths, but also distinct weaknesses (Onwuegbuzie and Johnson, 2006). According to Johnson and Onwuegbuzie (2004) there is still much work to be done in exploiting the strengths and minimizing the weaknesses of mixed method research when it comes to the question of validity strategies. According to Onwuegbuzie and Johnson (2006), some of the most important questions that mixed methods research raises include how much weight should be given to quantitative data compared to qualitative data? When findings conflict, what can we conclude? And how can we combine and equate quantitative results stemming from a (usually) large random sample with qualitative results from a (usually) small non-random sample?

As Creswell (2009) points out, issues for validity in mixed-method research can relate to sample selection and size, follow-up on contradictory results, bias in data collection, inadequate procedures or the use of conflicting research questions. As an example, in my research I carry out interviews. No matter how structured, or semi-structured the interview is, each one provides a unique interaction between myself and the interviewee which can never be replicated. It is also the case that, when analysing the interviews I can use coding to enable some form of consistency when collating data for themes, but when it comes to using illustrative examples from the interviews it is my judgement on what is useful and illustrative and my 'subjective' selection as to what is included in the text. One more example: the sample selection procedure for both my quantitative and qualitative methods is discussed in more detail below, but in both the online questionnaire and the interviews there

is some degree of non-randomness in selection, and therefore the issue of how valid any generalization of results is could be debated.

Regardless of the philosophical discussions behind the reliability, validity, objectivity, etc. of various research methods and the issues/questions raised above, what is important in this research is that it is carried out with consistency and that it is defensible and credible: I need to ensure that I provide the research stakeholders with as much information as possible in terms of my procedures and judgements so that a reasoned assessment of the validity and reliability of my research can be made.

4.6 Data collection techniques

4.6.1. Existing models of entrepreneurial questionnaires

As debated in Chapter 2, if we accept that a) an attitude approach to assessing change in entrepreneurial characteristics is more valid and relevant than using personality tests and/or demographic / societal information because attitudes are changeable and they can be influenced, and b) that we can 'measure' such changes in attitudes (as shown by Hatten and Ruhland, 1995) we can argue for adapting existing attitude tests which have produced reliable results for use in investigating before and after effects of a mobility experience on a student's attitude to entrepreneurial characteristics. Some of these are considered below.

Robinson *et al.* (1991) used the tripartite model of attitude to develop the Entrepreneurial Attitude Orientation (EAO) test. This test contains items devised to measure the three components of attitude (affect, behaviour and cognition) across four dimensions: achievement in business, self-esteem in business, personal control of business outcomes and innovation in business. Robinson *et al.* were interested in differentiating entrepreneurs from non-entrepreneurs using the attitude approach and therefore used entrepreneurial dimensions specifically linked to a business context. In a two-stage process they firstly designed the items for the questionnaire using existing literature on dimensions relating to entrepreneurs and, using student and expert judges, then honed these items to ensure that they were indeed covering the three components of attitude and the four dimensions of entrepreneurship. In the second stage, Robinson *et al.* used the EAO on entrepreneurs and non-entrepreneurs and, through its use, they were able to show differences between the two groups across the four dimensions. The EAO was designed around entrepreneurship in the business context, using business people as the sample (and control) groups: it has, however, been adapted for use with other sample groups.

The dimensions used by Robinson *et al.* were criticised by McCline *et al.* (2000) for not including, among other dimensions, risk perception and opportunity recognition – key elements in defining entrepreneurship according to McCline. McCline *et al.* used EAO in their research in a specific sector (health care) but included in their test additional items designed to elicit information on the willingness to take risks and on opportunity recognition. Once again, the EAO test proved able to distinguish entrepreneurial propensity from non-entrepreneurial propensity for individuals within the health-care sector.

Athayde (2009) considered latent enterprise potential in young people (15 – 19 year olds) and how this could be developed through a Young Enterprise (YE) programme. She used the EAO as a base for her research but because she was not investigating the differences between entrepreneurs and non-entrepreneurs, the ‘business’ dimensions used by Robinson *et al.* were not used in her research. Instead, she used a mixture of established dimensions of latent enterprise potential, namely achievement, personal control and creativity plus she included two new dimensions, leadership and intuition. Items covering these five dimensions (across the three attitude components) were developed in her Attitude Toward Enterprise (ATE) test. The ATE test thus compared the attitude towards enterprise of two groups of young people, some who had participated in a YE Scheme and some who had not. The results of this ATE test showed that participation in such a scheme positively influenced attitudes towards self-employment. Athayde is self-critical of some aspects of her study, including the fact that she did not make a comparison of the two groups pre- and post-test, nor did her study consider any subjective outcomes of the YE programme. However, the ATE, based on the EAO, has since been used in other studies, for example it was used to measure entrepreneurial potential in secondary school leavers in South Africa (Steenekamp *et al.*, 2011).

Hatten and Ruhland (1995) also used EAO as a base for their study on the impact of a particular small business programme on the entrepreneurial intentions of students from a number of north western U.S. colleges. They measured change in attitude across four variables (achievement, locus of control, innovation and self-esteem/confidence) pre- and post-delivery of the programme. Their results indicated a positive change in attitude for locus of control but they were unable to find significant differences in the other three variables. They also considered a range of demographic variables (such as age, entrepreneurial background, etc.) but did not find evidence to suggest that these variables impacted upon the likelihood of future entrepreneurial behaviour. What this study did not do, however, was to compare the results of the test to a control group, students who had not participated in the

small business programme. This study is interesting not only because of the use of the EAO, but also because of its use at two different points in time. This longitudinal approach meant the EAO test was administered to students both pre- and post-participation in the small business programme, thus measuring the impact of a certain event on some of the attitudes associated with entrepreneurship. While the results may not have shown that such a specific small business programme causes a change in attitude (in three from the four variables) it is an example of measuring change in attitude over time.

One more example of the use of EAO is that of Florin *et al.* (2007), who were interested in the concept of entrepreneurial drive. They used 5 entrepreneurial dimensions (achievement motivation, innovation, self-efficacy, proactive disposition and non-conformity) to investigate the entrepreneurial drive of two sets of university undergraduates – freshmen and seniors. The study was undertaken at one university and all the participants were studying business or related disciplines. Florin *et al.* concluded from the quantitative data that there was a difference in the entrepreneurial drive between freshmen and seniors, but they could not pinpoint this difference to specific courses or initiatives undertaken by the students in the time from first to final year studies and there is no mention of specific entrepreneurial courses or initiatives being undertaken by the students. The authors admitted that other factors such as the natural maturation process could account for the stronger entrepreneurial drive of the seniors and suggested the need for longitudinal studies of this nature to assess the impact of business education over time. What is noteworthy about this study is that Florin *et al.* used both quantitative and qualitative methods - a mixed method approach. The quantitative method (use of EAO) showed the difference in entrepreneurial drive between two groups and the qualitative method (focus group discussions with seniors) attempted to explain what had caused this difference.

4.6.2 The questionnaire: Dimensions tested

The studies outlined above all use as their base the tripartite model of attitude (cognition, affect and behaviour) with various dimensions related to entrepreneurial behaviour and all showed that the use of this model resulted either in being able to distinguish a more pronounced level of entrepreneurial tendency in one group compared to another, or in the case of Hatten and Ruhland (1995), showing that the attitude model can be used to measure changes in attitude over time. If an 'event' (mobility) does have an impact then attitudes measured at Time 0 (before the event = T_0) and then again at Time 1 (after the event = T_1) should show different results.

Any test designed to measure entrepreneurial attitudes is open to criticism regarding the dimensions used. As noted above, McCline criticised Robinson *et al.* for ignoring certain dimensions, Athayde talks of the mixed results achieved in the past when using risk-taking as a dimension and as a result she ignored this dimension in the ATE, and Kobia and Sikalieh (2010) also discuss the lack of agreement on the nature of risk-taking. Florin *et al.* (2007) used five traits and Hatten and Ruhland four (need to achieve, innovation, locus of control and self-esteem). Following on from the discussion about the definition of entrepreneurs it appears that a number of entrepreneurial dimensions can be used, as long as their use is pertinent and justified.

Recapping the research questions at this stage gives the basis for the questionnaire design:

1. Are there any differences between mobile and non-mobile students in entrepreneurial attitude before study/work abroad?
2. Is there a change in the mobile students' entrepreneurial attitude pre- and post-study/work abroad? Do students themselves perceive any change in their entrepreneurial personality traits as a result of mobility?
3. Is there a similar change in results for non-mobile students over the course of a year?
4. If there is a change in the mobile student group, to what do students attribute this change (for example, what factors or events of the experience have caused changes to occur)?
5. How has the mobility experience impacted on the lives of graduates? Do they perceive themselves to be acting entrepreneurially in their lives/careers? Do they attribute their mobility experience as defining their (entrepreneurial) behaviour in any way?

Based on these questions, the literature review and existing studies on entrepreneurial attitude, the following broad entrepreneurial dimensions are used to support and design the questionnaire items for this research:

Achievement Motivation: Shane (2007) states that need for achievement includes goal setting, planning and information gathering and that it requires a determination to sustain goal-directed activity over a long period of time. Although money is not the sole driver for entrepreneurial behaviour, it is a by-product of successful entrepreneurial behaviour (or should be) and it is a measurable and visible entity, which is why we often equate it with success – and individuals with a high need for achievement have a strong need for success

(see Koh, 1996). However, as McClelland and others argue, achievement motivation is defined much more through status aspiration, dominance, competitiveness, determination and, in the case of students, through the achievement of high grades, success in their studies, etc.

Risk-taking propensity / Tolerance of Ambiguity: the debate surrounding whether or not entrepreneurs have a higher acceptable risk level than non-entrepreneurs is contentious (which is why Athayde did not include this dimension in her study). However, many of the studies discussed in the literature review did include risk-taking as an entrepreneurial trait, hence I have decided to include it as a dimension. Less contentious is the presence of a certain level of tolerance of ambiguity in entrepreneurial individuals, i.e. a person's attitude to uncertainty and their willingness to see uncertainty as a constructive and positively challenging development.

Innovative ability/creativity: innovation is about being able to spot an opportunity and to bring that opportunity to market as a product, service, or process which enhances or improves upon that which already exists, thus innovation is the commercialization of creativity and creativity can exist in any walk of life not just in business. This dimension seeks to measure changes in attitude towards creativity and innovative ability through, for example, experimentation and the questioning of accepted practices. These dimensions are both linked to problem-solving ability (Raab *et al.*, 2005).

Locus of Control, Self-efficacy and Confidence: Locus of control concerns the extent to which an individual feels that s/he controls their destiny and self-efficacy concerns a person's belief in their ability to perform particular tasks, i.e. it is task-specific. Chen *et al.* (1998) argue that both these concepts have similarities: they are both cognitive, both are about 'control' in some form and both can be affected by 'external' influences (self-efficacy by performance and locus of control by life experiences). Chen *et al.* also point out two distinctions between the two: locus of control concerns both behaviour and outcome, whereas self-efficacy is primarily concerned with behaviour; and locus of control is generalized whereas self-efficacy is task-specific. Self-efficacy has been linked to initiating and persisting at behaviour under uncertainty, to setting goals, to career choice (Bandura, 1995) and to opportunity recognition and risk-taking (Krueger and Dickson, 1994).

In their study on self-efficacy as a distinguishing factor between entrepreneurs and managers, Chen *et al.* (1998) found a positive relationship between self-efficacy and internal locus of control. They also found that, while entrepreneurial self-efficacy (ESE) can be very

task-specific, it can also encompass moderate specificity (i.e. an occupation that covers a number of well-defined tasks). Cheung and Chan (2000) in their review of studies on the Theory of Planned Behaviour (TPB) concluded that mixed measures that included self-efficacy and controllability items showed a high degree of internal consistency. We can argue that while accepting the different dimensions of locus of control and self-efficacy as outlined above, there are overlaps between these two concepts. Similarly, the concept of self-confidence is also bound up with the notion of self-efficacy and internal locus of control (and indeed tolerance of ambiguity and risk-taking propensity, according to Ho and Koh, 1992).

4.6.3 Questionnaire design: A quantitative approach

“Intentions to perform behaviours of different kinds can be predicted with high accuracy from attitudes toward the behaviour, subjective norms, and perceived behavioural control; and these intentions, together with perceptions of behavioural control, account for considerable variance in actual behaviour” (Ajzen, 1991 p179).

The main thrust of my research is not to measure entrepreneurial intent, it is to measure change in entrepreneurial attitude and to provide insight into why that change may have occurred. Therefore, my interest in the TPB model is confined mainly to the use of attitude (towards entrepreneurial behaviour) as the baseline for measuring change. As already argued, the use of the subjective norm is contentious, plus the students in my sample have already made the decision to go abroad and consequently are no longer open to influence by the referent group at this stage and so the subjective norm can be largely ignored in my research.

The questionnaire designed for this research contains a number of sections as follows:

Before mobility (T_0) questionnaires

Demographic Section and Activity in Coming Year Section: The first section asked for demographic data (age, degree discipline, university, etc.) and data on the proposed activity in the year ahead. The questions were altered slightly for the experimental and for the control group to reflect the status of the students, for example study/work abroad or U.K. work placement.

Background of Entrepreneurship Section: The questions on the entrepreneurial background of the students asked whether they had ever considered starting up their own business, whether they had ever started their own business and if their family members had their own business. These questions were dichotomous in nature, with yes/no alternatives.

Attitude Section: The attitude section contained 42 items derived from the EAO test. These are discussed in more detail below. The items were randomly listed to prevent respondents from detecting a pattern in the questions. These questions used a Likert scale of 1 – 7, with 7 being 'strongly agree' and 1 being 'strongly disagree'. Finally, the students were asked to indicate their willingness to participate in a similar questionnaire a few months later.

After mobility (T_1) questionnaires

Demographic Section and Activity in Past Year Section: For the purposes of consistency the sections on demographic data asked the same questions as in the first questionnaire. Students were also asked to confirm what activity they had undertaken in the previous year.

Mobility Experience Section: For the mobile students an extra section was added to this questionnaire on the mobility experience, which included questions on why they went abroad and about any difficulties they had experienced. They were also asked to rate how they felt certain traits had changed, e.g. their risk taking propensity, confidence, flexibility, etc., plus they were asked to consider what particular aspects of the experience had impacted upon them. The purpose of this section was to gather as much information as possible from the students about how they felt they had changed and about potential underlying reasons for any change as it would not be feasible to interview all of them. This section was a mixture of multiple choice questions (with respondents able to give more than one answer) and open-ended questions.

Entrepreneurial Intentions and Impact Section: The entrepreneurial impact and intent section asked both the control and experimental groups to consider if their experience had impacted on their intention to set up their own business and how likely they were to set up a business, either shortly after graduation (within two years) or further in the future.

The Attitude Section: The attitude section contained exactly the same 42 items as at T_0 . The mobile students were also asked to indicate their willingness to be interviewed about their experience abroad.

4.6.3.1 The attitude section

This section was designed to cover the dimensions of entrepreneurship reviewed in Section 2.3.3. Certain items in the attitude section of the questionnaire reflect those asked in other studies, in particular Robinson *et al.* (1991), but they have been reworded to focus on students and their particular situation (as opposed to focussing on business people and on a business context), and some have been devised specifically for this questionnaire. The items specifically designed were derived primarily from the literature review. Each general dimension is assessed using a number of items that cover the three components of attitude (affect, behaviour and cognition). I have used these components because, as Florin *et al.* (2007) point out, attitude can be better understood when these three components are considered simultaneously. A full list of items used in the questionnaire is given in Appendix 1.

Each item in the attitude section is labelled and the labelling of the items is based on the following process:

STEP 1: Which of the entrepreneurial dimensions discussed in Section 4.6.2 does the item reflect? A = achievement motivation, C = (internal locus of) control, I = innovation/creativity and R = risk-taking propensity and tolerance of ambiguity

STEP 2: Which of the components of attitude is the item measuring? A = affect, B = behaviour and C = cognition

STEP 3: Up to 3 items are included to measure each entrepreneurial dimension and each attitude component. This number denotes which of the three this item represents.

STEP 4: Is the item reverse scored? If yes, R = reverse-scored.

Table 2: Item Labelling

DIMENSION	COMPONENT			QUESTION NUMBER			REVERSE-SCORED?	ITEM LABEL
	Affect A	Behaviour B	Cognition C	1	2	3	R	
Achievement A		√		√				AB1
Control C			√	√				CC1
Innovation I	√					√		IA3
Risk R			√		√		√	RC2R

For example, Item RC2R measures attitude to risk (R), in terms of cognition (C), it was the second item in the questionnaire to look at this (2) and the item needed to be reverse-scored (R).

4.6.4 Piloting the questionnaire

The attitude section of the questionnaire was piloted on final year undergraduate students from the School of Business and Economics at Loughborough University in March 2011. In total 43 questionnaires were returned. To test the reliability of the attitude items a Pearson correlation was carried out. The results showed varying levels of correlation amongst the sub-groups of questions (within each entrepreneurial dimension). Based on these results, those items showing weak correlation were re-worded and a revised questionnaire was issued to a different group of undergraduate students (with 25 responses), which showed that all items registered moderate or strong correlations with other items in the sub-group. So the final questionnaire contained an 'attitude' section consisting of 42 items designed loosely around control, risk/tolerance of ambiguity, achievement, confidence and innovation/creativity, and used a Likert scale of 1 (strongly disagree) to 7 (strongly agree) to allow a nuanced answer selection.

In addition to the above, once the 42 items had been finalised, I carried out a further test of reliability, namely the Cronbach's Alpha (CA). CA is a measure of internal consistency, that is to say how closely related the items within each group are. In general, the higher the CA, the higher the internal consistency. However, there is debate as to what is an acceptable alpha score. According to Hair *et al.* (2006):

"The generally agreed upon lower limit for CA is 0.7 although it may decrease to 0.6 in exploratory research." (p137)

Table 3 shows the CA's for the 42 items grouped in their entrepreneurial dimensions. The CA's are not high but do show a level of consistency among the groups (as per Hair *et al.*'s limits).

Table 3: Cronbach's Alpha Scores for Piloted Items

Entrepreneurial Dimension	Number of Items	Cronbach's Alpha
Achievement A	12	0.759
Control C	11	0.735
Innovation I	11	0.765
Risk R	10	0.64

Once the attitude section had been completed, the online tool Bristol Online Survey (BOS) was used to design the whole questionnaire, with all sections included. It was then sent to a smaller group of individuals, consisting of students and non-students, who were asked to comment on and check the questionnaire for spelling, grammar, logical question order, etc. A few revisions were made to question order as a result of this process. BOS was then used to distribute the questionnaire.

The process of sample selection is described in detail in Section 4.7. Basically there were three targeted groups:

- **SAWA** group (**STUDY ABROAD AND WORK PLACEMENT ABROAD STUDENTS**). This is the experimental group and consists of students who would undertake a period of study and/or work placement abroad.
- **WPUK** group (**WORK PLACEMENT IN THE U.K. STUDENTS**). This is one of two control groups and consists of students who would undertake a work placement in the U.K.
- **NSA** group (**NOT STUDY ABROAD AND NOT PLACEMENT STUDENTS**). This is the second control group and consists of students who were not undertaking either mobility or work placement and who would complete their degrees in three years.

The SAWA group is the experimental group, WPUK and NSA act as control groups. A 'control' group made up of any non-mobile students would not be strictly comparable with the SAWA group, as non-mobile can constitute both students who have been on placement in the home country and students who have neither studied abroad nor carried out a work placement during their degree. Naturally these two different experiences could impact upon a student's entrepreneurial development and therefore skew the results, so the decision was taken to view these non-mobile students as separate control groups. Similarly, for the purposes of asking for responses, a distinction based on discipline of study was not made – it was decided to ask students from all disciplines to answer the SAWA study and to 'sort' after collection in order to ensure as large a response as possible. The target groups from non-mobile students were made up of students in the general discipline of business and management as explained in Section 4.7. It has been mooted that business students may be more entrepreneurially inclined than non-business students and that this could have an impact on the results so this point is debated in more detail in Chapter 7.

In all six versions of the questionnaire were developed, one for each group at two points in time. Table 4 gives an overview of the sections used for each group.

Table 4: Questionnaire Sections

Group (Sample size)	Section 1	Section 2	Section 3	Section 4	Section 5
Before: T ₀					
SAWA0 (335)	Demographic data	Activity in coming year	Background of entrepreneurship	Attitude questions	
WPUK0 (82)	Demographic data	Activity in coming year	Background of entrepreneurship	Attitude questions	
NSA0 (35)	Demographic data	Activity in coming year	Background of entrepreneurship	Attitude questions	
After: T ₁					
SAWA1 (147)	Demographic data	Activity in past year	Mobility experience questions	Entrepreneurial intentions and impact	Attitude questions
WPUK1 (30)	Demographic data	Activity in past year	Entrepreneurial intentions and impact	Attitude questions	
NSA1 (7)	Demographic data	Activity in past year	Entrepreneurial intentions and impact	Attitude questions	

4.6.5 The interview design: A qualitative approach

Interviewing respondents one-to-one provides the opportunity to examine attitudes, values, experiences and patterns of behaviour and allows the interviewer to question responses and to probe more deeply into particular issues. The questionnaire as described above is used to measure change in attitude due to an event: the interview allows respondents to expand, explain and reflect on the mobility experience and reasons for change. As Easterby-Smith *et al.* (2008) note, the aim of qualitative interviews is to collect information that can explain the meaning and interpretation of events in relation to the respondent's worldview.

While face-to-face in-depth interviews are not as open to bias as some other forms of data collection (Easterby-Smith *et al.*, 2008) there is a danger of the interviewer imposing their own frame of reference on the interviewee and that the characteristics of the interviewer may affect the answers that people give (Bryman and Bell, 2007). This can certainly be the case when the interviewer is particularly enthusiastic about the research topic and can, albeit subconsciously, transmit that enthusiasm into the interview. As someone who herself undertook mobility as a student I had to be particularly careful not to reflect my experiences and attitude in the questions I asked or the interpretation that I made from the responses. In a similar vein, there is also the need to be aware of interviewees responding to questions in a socially desirable way, that is giving an answer that they assume to be acceptable or

desirable or what the interviewer wishes to hear, rather than what they actually feel or know (Harris and Brown, 2010).

There are various forms that an interview can take: Easterby-Smith *et al.* (2008) discuss highly structured interviews (a carefully prepared set of the same questions are asked in the same way to each participant), semi-structured interviews (a more open interview that has a 'check list' of questions to cover but can be asked and answered in a more flexible way and which allows for probing and secondary questions) and unstructured interviews (often carried out with little formal questioning, for example in ethnographies).

For both my interview groups (graduates and students) I used the semi-structured interview approach. I wanted to ensure that I had covered the same themes with each interviewee, but the two areas of interest for the interview – the work/study abroad experience and the entrepreneurial skill development element – are both very individualistic in nature and as such it was necessary to have flexibility in the interview in order to delve into some of the answers in more detail and ask supplementary questions where necessary. I prepared a checklist of themes, with a number of questions in each theme. For both interview checklists the themes included:

- a) personal details (age, degree, career/career plans, etc.),
- b) the study/work abroad experience (why they chose mobility, difficulties encountered, what they enjoyed, what they learnt, etc.),
- c) their understanding of entrepreneurship and their family background (i.e. any entrepreneurs in the family),
- d) an exploration of certain entrepreneurial traits and how these related to their mobility experience (e.g. risk-taking, creativity, etc.),
- e) their plans for their own (future) business and career.

An outline of the interview structure and questions for the students is given in Appendix 2 and for the graduates in Appendix 3.

The interview checklist was developed based on the literature review, the research questions and, in part, the responses to the first online questionnaire. The sample selection process is described below. The graduate interviews took place from March to August 2012 while the student group was abroad, the student interviews took place from January to April 2013. Due to distance and availability of the interviewees eight of the interviews had to take place via Skype, the other interviews were face-to-face either in my office in Loughborough

or somewhere of the interviewee's choosing. At the start of each interview I gave a very brief outline of the research (I did not go into very much detail at this point – only after the interview was over did I elaborate on what I was researching). Each interview was recorded and I also took notes during the interview. Each interview lasted between 45 – 60 minutes and was then transcribed as soon after the interview as possible.

4.7 The participants

Being able to make generalizations about the population as a whole from the results of my research methods depends upon how the sample used is selected, for both the interviews and for the questionnaire. The ability to generalize is dependent upon the sample being representative of the population and is therefore dependent upon how the sample is chosen (and, to some extent, the size of the sample relative to the population).

In principle there are two ways in which to produce a sample; randomly (probability sample) or non-randomly (non-probability sample). Probability sample techniques select participants at random, thus eliminating the researcher's judgement from the choice of participants (Saunders, 2012). This also implies that the sample is representative of the population and that generalizations can be made based on the results from this sample. A non-probability sample is a sample that has not been selected using random techniques and therefore some participants in the population are more likely to be selected than others (Bryman and Bell, 2007).

In an ideal world my sampling frame for the study/work abroad questionnaire (SAWA) would be every student in the U.K. who spends part of their studies working or studying abroad: similarly for the placement (WPUK) questionnaire, my sampling frame would be every student in the U.K. who does a U.K. based work placement during their degree; and for the three year degree (NSA) questionnaire my sampling frame would be every student in the U.K. who does not undertake work placement or study/work abroad and who completes their degree within three years. For the interviews, once again my sampling frames would be all students who had just completed a period abroad and all graduates who spent part of their degree abroad.

Realistically, it is not feasible to reach 1.8 million full-time undergraduate students in the U.K. (UCAS, 2012), nor is it easy to find data on how many of these 1.8 million people are on 3 or 4 year programmes, nor how many of them in total will spend time abroad or do a work

placement as part of their degree. Finding students who are willing to complete an online questionnaire twice (once before and once after an event) and who are willing to be interviewed is largely a question of perseverance, luck, personal contacts and the willingness of third parties (in my case these were university administrators and programme directors) to pass on requests to students, who cannot be approached directly in the first instance due to data protection.

Quantitative sample (online questionnaire)

According to the Education Order 2010 (U.K. Government website, 2013) there are 158 Higher Education Institutions in the U.K. which have their own degree awarding powers. A number of these institutions send students abroad as part of their degree programme and a number of them offer work placements to their students as part of the degree programme. Using data from Carbonell (2011) I selected those universities / HE institutions where the numbers of students undertaking mobility were sufficiently large (over 50 students) and hence there would be a greater likelihood of receiving some responses. These universities came from across the U.K. and across the HE spectrum (e.g. Russell Group, 1994 Group, Alliance and Post-92 universities). I then sent an email query to the International Office / Study Abroad Office at central level at each of these institutions, outlining the purpose of my research and asking them to forward an email to their outgoing students on my behalf. Where there was no email response from the institution within two weeks, I followed up by contacting the international office by telephone. Of the 32 institutions contacted this way, only two refused to forward my email (citing lack of time and email-overload as reasons); 30 other institutions stated they would forward my email to their students. Analysing the participation rates indicates that students from 21 of these institutions responded to the questionnaire.

The main selection criterion for participation was that students were about to go abroad as part of their degree. Under that main criterion I made no conscious choice about, nor had influence over, which students responded. I made no sub-criteria regarding age, gender, degree discipline, family background or previous experience of small business / entrepreneurship. The reasons for this non-distinction were twofold. Firstly, I wanted to ensure as large a sample as possible; secondly, I wanted to keep the sample as random as possible for my initial analysis in order to focus my results on the changes brought about by the 'event', and not by peculiarities of the sample – an 'all things being equal' focus. With sufficient responses I would later be able to categorise the responses and look for patterns among different sub-sections of the sample, but this was not my main focus when generating the sample.

With the control groups I was more specific in my search, limiting the degree disciplines to management and/or business or related subjects. This was because there are large numbers of degree disciplines that offer placement opportunities in the U.K. but it would have been extremely challenging and time-consuming to pinpoint these. Four year business (and related discipline) programmes in the U.K. tend to offer placement opportunities, and therefore I could search for business / management four year degree programmes to find my sample. I consulted website data on universities that offered placement opportunities and contacted the placement offices (where available) of these universities. Similarly, with the three year degree students, I limited my search to business students as otherwise it would have been very time consuming to contact all departments/faculties across all universities. The same process as for the study abroad group was carried out. I contacted the relevant placement office/programme director via email to ask for my email to students to be forwarded. This was followed up by telephone contact two weeks later. In all, I received responses from 5 U.K. universities for the 3 year degree students and from 3 U.K. universities out of 10 contacted for placement students. A further attempt to contact programme directors and hopefully raise the number of respondents in the 3 year degree group was made one month later. This was done, once again, via email and phone. This third round of contact resulted in a few more programme directors agreeing to participate, but not a marked increase in the number of respondents.

With this 'non-distinction' focus, it could be argued that my sample selection was random in as much as I did not select the students other than through targeted selection of universities that could provide relevant sample students. It does need to be reiterated that the mobility sample contained students from a number of disciplines whereas the control groups contained students from mainly business (or related) disciplines. This distinction occurred because of the need to ensure a large response rate in the mobility group and the fact that it is often business students who carry out U.K. based placements and thus it was easier to recognise and focus in on such students to act as a control group.

Second questionnaire sample

The first questionnaire included a question asking if students would be willing to answer the second questionnaire. Those who answered in the affirmative were emailed directly after approximately one year, asking them to complete the second questionnaire. For the SAWA group of students 335 students responded to the first questionnaire between September and November 2011 and, of those, 147 responded to the second questionnaire between September and November 2012 (44%). For the WPUK group 82 students responded to the

first questionnaire between September and November 2011 and 30 responded to the second questionnaire between the same months in 2012. The NSA group had the lowest response rate: 35 responded to the first questionnaire in 2011; but despite re-emailing the students, only 7 responded to the second questionnaire from May to June 2012 (20%).

The low number of responses for the NSA second questionnaire could be attributed to the fact that the original sample size was small. It was also the case that the questionnaire had to be sent in April-May of 2012 in order to capture the students before they graduated. This, on reflection, was perhaps an inconvenient time-period in which to ask students to do anything that was not connected to their final degree preparations. Bryman and Bell (2007) discuss sample attrition as one of the problems in longitudinal studies: in this case if the sample size was small to begin with, natural attrition combined with unfortunate timing could explain this low response rate. It could also, of course, be down to apathy on the part of these students – they had not undergone any particular event between the first and the second questionnaire and therefore did not feel particularly motivated to participate in the second questionnaire.

Qualitative samples (student interviews)

The SAWA second questionnaire included a question asking if respondents would be willing to be interviewed. 23 students responded positively to this question. These students were all contacted via email approximately 4 months after their return to the U.K. to see if they were still willing and able to be interviewed. From this group I was able to arrange to interview 8 students over the next four months, either face-to-face or via Skype.

Qualitative samples (graduate interviews)

Twelve graduates from two U.K. universities were interviewed in the period between March and August 2012, seven face-to-face and five via Skype. The graduates were randomly chosen in as much as the Alumni offices of two universities (Loughborough and Kingston) contacted all those graduates who had completed their degrees between 2004 and 2010 and who had also undertaken mobility and who had kept in touch with the university to ask if they were prepared to be interviewed. These two universities were used because of personal contacts at these places and hence the ease of accessing relevant offices to enquire about graduates. Approximately fifteen graduates responded to the request but due to a number of factors (e.g. difficulty in arranging a suitable time for the interview) only twelve of these were interviewed.

4.8 Research ethics

Diener and Crandall (1978, cited in Bryman and Bell, 2007) classify ethical principles in business research into four areas:

- Whether there is harm to participants
- Whether there is a lack of informed consent
- Whether there is an invasion of privacy
- Whether deception is involved.

According to Bryman and Bell (2007) these areas can overlap but the four areas give rise to issues that need to be addressed in social science research. On the surface, it is the latter three areas that would appear to be relevant for my research, although 'harm' can cover a multitude of facets, including physical harm, harm to a participant's career development or harm to their self-esteem.

It is important for researchers to behave ethically when conducting research as doing so firstly protects the rights of all those involved in the research process and secondly ethical behaviour helps to ensure accountability for the research to the wider public. Every step of my research and in particular at the data collection stages my research was governed by Loughborough University's Ethical Policy Framework, which covers all of the above principles and which states:

"Researchers must work with honesty, accuracy and rigour, and accept their professional duty to understand the ethical implications of their studies, especially those involving human participants, animals, risk to the environment and the use of sensitive data" (Loughborough University, 2011 p5).

I completed an ethical clearance checklist form, which was approved by the Associate Dean for Research within the School of Business and Economics at Loughborough University and which is a requirement for all research undertaken at the university.

My interaction with individuals within my research consisted of face-to-face or online contact in an interview situation, with email contact and the use of third parties to forward email messages and to make initial contact with my sample groups. At every stage of the data collection process I informed the participants of the research purpose and confidentiality of any data provided by them. For example the online questionnaire was prefaced with a

statement outlining the purpose of the research and how the data would be handled. At the start of each interview I asked for permission to record the interview and to use anonymous quotes in my research. Participation in my survey and in the interviews was voluntary: I ensured that students and graduates who contacted me and who agreed to participate did so knowingly and willingly. I was also aware of data protection requirements with respect to confidentiality and use of the data.

CHAPTER 5: QUANTITATIVE DATA ANALYSIS

5.1 Introduction

This chapter presents the findings from the quantitative data collection – the online questionnaire. It provides a discussion of both the statistical analysis of the data and of the data from the open-ended and multiple choice sections in the questionnaires.

5.2 The process

The process of data collection is given in Section 4.4 but to recap, three separate groups of students were asked to complete a questionnaire online using Bristol Online Survey (BOS) at two points in time: before an event (mobility, U.K. work placement or 'no event') and after an event (upon the students' return to university or, in the case of the three year degree students, on the completion of their degree). The groups were:

- **SAWA: STUDY AND/OR WORK PLACEMENT ABROAD**

Students who were about to go abroad, either to study at a foreign institution, or carry out a work placement, or to do a combination of both.

- **WPUK: WORK PLACEMENT IN THE U.K.**

Students who were about to carry out a work placement in the U.K.

- **NSA: NOT STUDY ABROAD AND NOT PLACEMENT**

Students who were on three year degrees and were not undergoing either work placement or spending time abroad, 'no event'.

Table 5 shows the group labelling and sample sizes for the quantitative process.

Table 5: Experimental and Control Group Labelling

GROUP	GROUP LABEL	
	BEFORE (T_0) (SAMPLE SIZE)	AFTER (T_1) (SAMPLE SIZE)
STUDY AND/OR WORK PLACEMENT ABROAD	SAWA0 (335)	SAWA1 (147)
WORK PLACEMENT IN THE U.K.	WPUK0 (82)	WPUK1 (30)
NOT STUDY ABROAD AND NOT PLACEMENT	NSA0 (35)	NSA1 (7)

How the questionnaire was designed is described in Chapter 4. Six versions of the questionnaire were developed, one for each group at T_0 and one for each group at T_1 . An example of the questionnaire and sections is given in Appendix 8. So at T_0 the data comes from SAWA0, WPUK0 and NSA0 and at T_1 the data comes from SAWA1, WPUK1 and NSA1.

The T_0 questionnaires were sent and answered between September and November 2011. The T_1 questionnaire for NSA1 was sent and answered between May and June 2012 (to account for these students graduating in summer 2012 and therefore possibly being unavailable to answer the questionnaire any later). The T_1 questionnaires for SAWA1 and WPUK1 were sent and answered between September and November 2012. The T_1 questionnaires were sent only to those students who had indicated in the first questionnaire that they would complete these. As not everyone answered that they would be willing to do so the sample sizes for T_1 were consequently lower than those at T_0 . For example, 335 questionnaires were returned for the SAWA0 group. From these, 281 students stated their willingness to complete the second questionnaire and 147 did so, therefore the SAWA1 sample size is 147.

Once the questionnaires had been returned, the data were transferred from BOS to Excel files and items that had been reverse scored were corrected. The data were cleaned so students who were not applicable, for example who had already completed their mobility or who were not on 3 year degree programmes, were taken out of the data sets. I used a combination of SPSS and Excel software to carry out the statistical analysis.

5.3 Areas for analysis and comparison

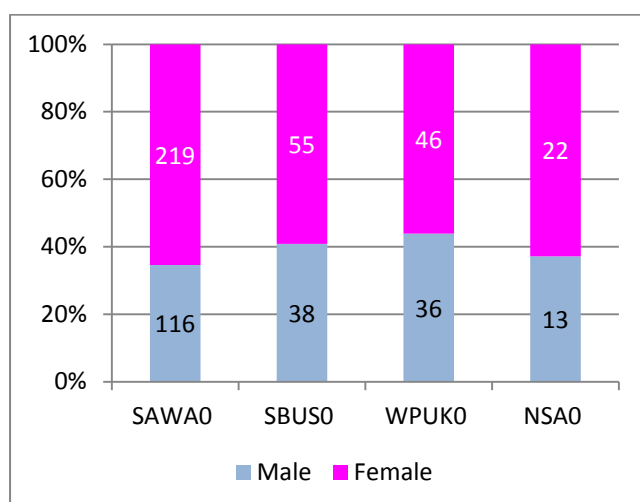
The quantitative part of this research concerns measuring change over time. In order to measure change over time we need a starting point for our measurements. This is T_0 . The data at T_0 give an indication of how the attitudes of the individual groups towards certain entrepreneurial dimensions stand at that time and allow a comparison of the three groups before the event (mobility, U.K. work experience or no event). The focus of this research is the development of entrepreneurial attitudes in an internationally mobile group of students (SAWA). The other two groups, WPUK and NSA, act as control groups. Despite the discussion in Chapter 4 on the controversy surrounding control groups, it is nevertheless useful and necessary to use control groups in order to have some form of comparison.

The attitude section in the questionnaires allows a measurement of change over time and a comparison against a control group (or groups). But the questionnaires also included demographic and entrepreneurial data and, in some cases, open ended questions about the experiences undergone by the students. The demographic and entrepreneurial data can be numerically analysed to give comparisons across the groups. The open ended questions are used to help explain why any change might have occurred.

5.4 The demographic section

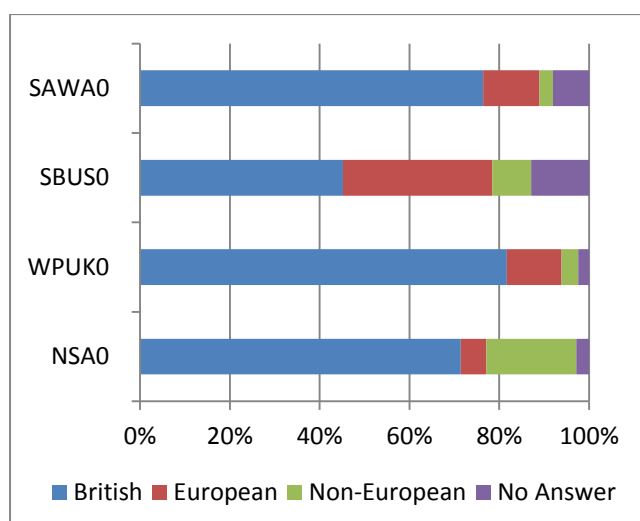
In Chapter 4 I discussed the characteristics and selection methods for the three groups under scrutiny. The samples were chosen as randomly as possible so that there would be minimum focus on the characteristics of the groups. There is some parity in as much as the students are all of a similar age and educational achievement level, but because of the way the groups were selected there cannot be total parity in the demographics of the groups. One major difference between the groups is that the SAWA group consists of students from a number of academic disciplines so as to provide as large a sample as possible; the other two groups are mainly students from business disciplines. In order to provide a greater level of discussion on business v non-business students and more compatibility across the experimental and control groups I created a sub-group of students once the first questionnaire had been returned. This sub-group consists of SAWA students from business disciplines and it is used in some of the analyses of the data. 93 students from the SAWA0 group were studying business or a variant thereof and were included in this sub-group, which I labelled SBUS0. Similarly, 30 SAWA1 students were studying business and hence formed the SBUS1 group. The following figures show the male/female split, the nationality and the average ages of the experimental and the control groups at T_0 and at T_1 .

Figure 3: Male/Female Split at T₀



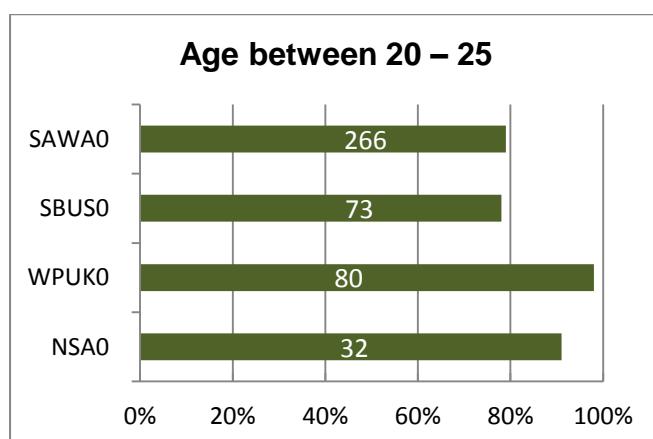
In all four groups, more females responded to the questionnaire than males. For the SAWA group, these percentages correspond to Erasmus statistics from 2011-2012, which show that 66% of outbound U.K. students in that year were female, 34% were male (British Council, 2013b).

Figure 4: Nationality at T₀



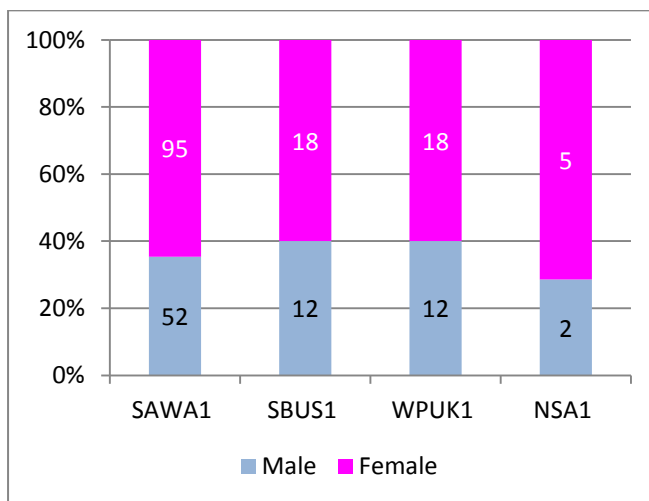
The majority of students are British, except for the mobile business students (SBUS) group, where only 45% of the students claimed British citizenship.

Figure 5: Average Age at T₀



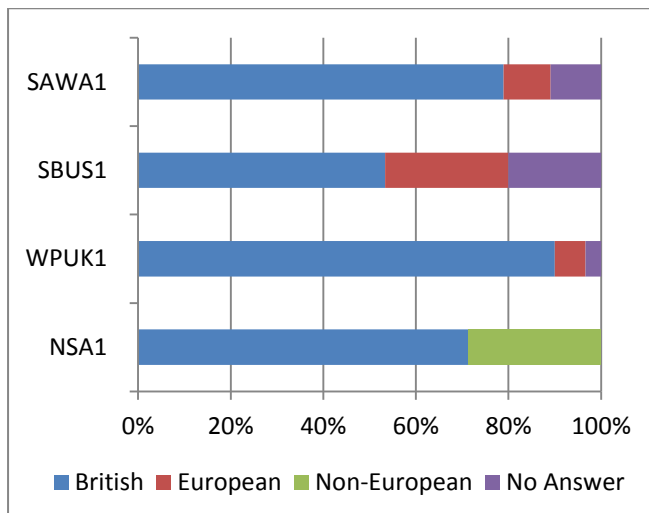
The majority of students in all groups were aged between 20 and 25 at the time of the questionnaire. This corresponds to expectations, as the majority of students at U.K. universities start their undergraduate degrees between the ages of 18 and 20 and complete by the age of 25.

Figure 6: Male/Female split at T₁



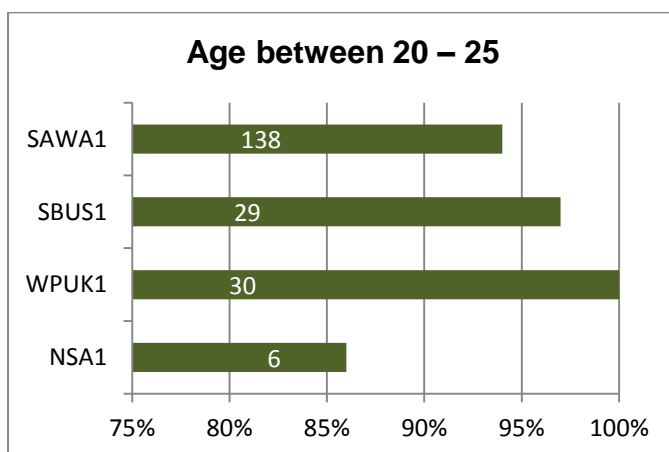
Once again, in line with expectations, the male-female split in the mobile groups is approximately one third – two thirds.

Figure 7: Nationality at T₁



The majority of students were British, but the SBUS group shows a much higher proportion of non-British students than the others.

Figure 8: Average Age at T₁



The majority of students in all groups were aged between 20 – 25 at the time of the second questionnaire, once again this is in line with expectations.

5.5 The entrepreneurial section

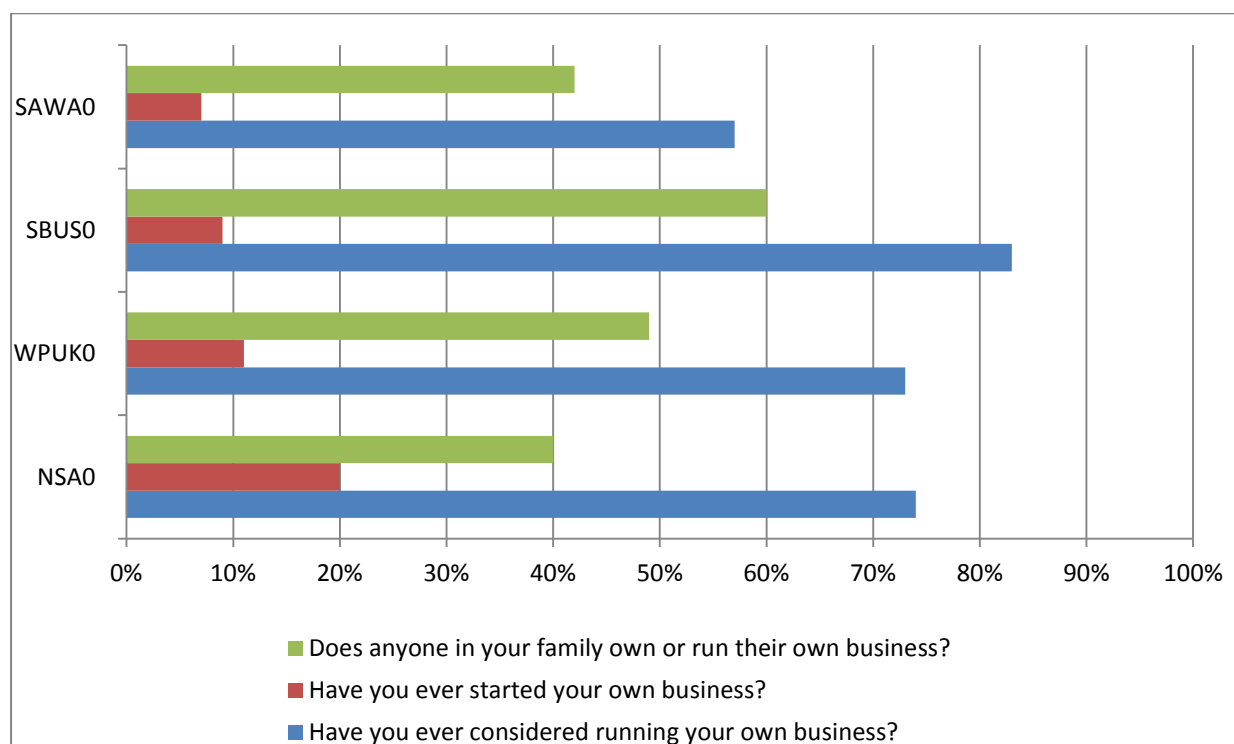
The following figures represent the entrepreneurial background and entrepreneurial intentions of the students at T_0 and T_1 .

5.5.1 Entrepreneurial background and intentions at T_0

Figure 9 shows the entrepreneurial inclinations of the groups and their entrepreneurial background. I asked these questions because a) entrepreneurial intent can be a pre-cursor to entrepreneurial behaviour (Ajzen, 1991) and therefore it gives an indication of possible future behaviour of the students and b) the entrepreneurial background of the students is relevant in as much as this could impact on their inclination towards entrepreneurial behaviour (Scott and Twomey, 1988).

In all groups over half the sample answered in the affirmative to the question “Have you ever considered running your own business?” 73% of the WPUK and 74% of NSA stated that they had considered this. Only 57% of all the mobile students (SAWA) stated this intention. When the SBUS sub-group is deducted from the SAWA group only approximately 50% of non-business mobile students have considered setting up their own business.

Figure 9: Entrepreneurial Background and Intentions at T_0



As the majority of the SAWA group were not studying a business related discipline perhaps this explains the lowest response rate from this group, i.e. the lack of business knowledge leads to less likelihood of considering setting up a business. The highest positive response was among the mobile business students (SBUS) with 83%. One explanation for this high percentage, consistent with Vance *et al.*'s (2012) point about the role of business education, is that business students develop content knowledge that aids entrepreneurship. On the other hand, Tackey and Perryman (1999) did state that non-business graduates (particularly from the Creative Arts disciplines) are, in reality, more entrepreneurially active than business graduates (perhaps because of their ability to think creatively, conceptualize problems and generate insight – Godwyn, 2009; Pink, 2004. Cited in Vance *et al.*,) so the low response rate from the non-business mobile students is not necessarily indicative of their future behaviour.

Given the relative youth of the respondents the percentages for the question “Have you ever started your own business?” were, understandably, low. Álvarez-Herranz *et al.* (2011) found that the average age for males to set up a business in developed economies is between 25 and 34 and is higher for women. 20% of NSA students have already started or ran their own business. This is by far the highest percentage across the four groups, twice as many as the next highest group – WPUK.

To the question “Does anyone in your immediate family own or run their own business?” 60% of SBUS, 49% of WPUK, 42% of SAWA and 40% of NSA answered positively. The lowest positive response rate to this question came from the NSA group and the second lowest response rate was from the SAWA group, who also gave the lowest response rate to whether they had considered setting up their own business. The highest positive response rate for entrepreneurial background came from the SBUS students, who also had the highest response rate about considering setting up their own business – this would seem to support the suggestion that having an entrepreneurial role model in the family could, albeit subconsciously, positively influence the desire to set up and run your own business (although ‘considering setting up a business’ does not, of course, mean that these students will behave entrepreneurially in the future).

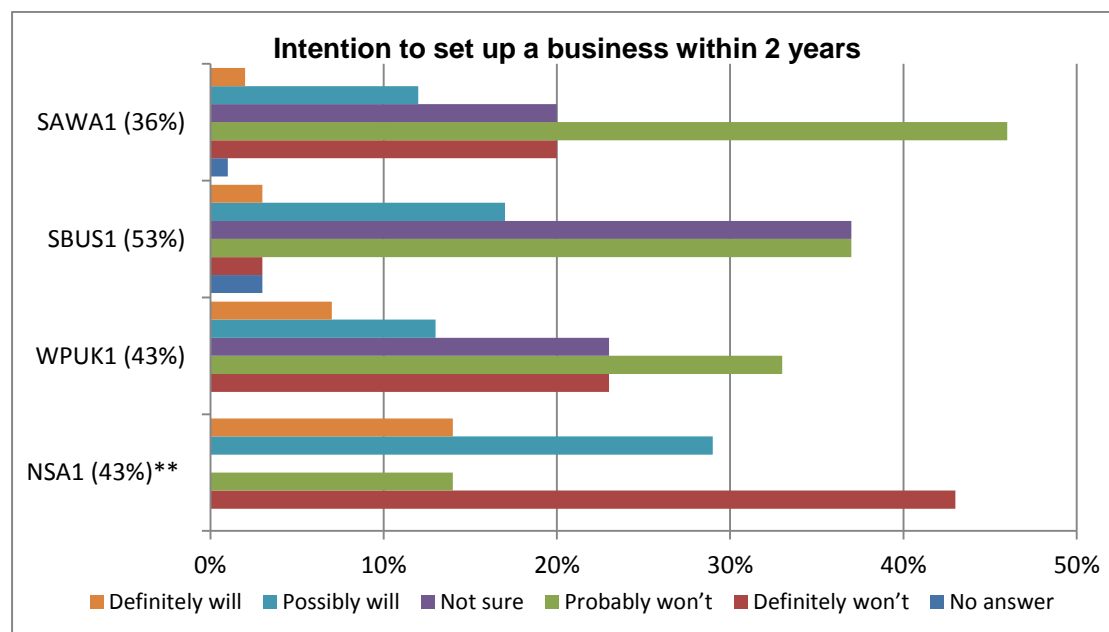
5.5.2 Entrepreneurial intentions and impact findings at T₁

Figure 10 shows the responses to the question “How likely are you to set up your own business within 2 years of graduation” and Figure 11 shows the responses to the questions “How likely are you to set up your own business at some point in the future?” I used the two

points in time firstly because simply asking about setting up at some time in the future would be too vague on its own, whereas if students were given the choice to state 'sooner' or 'later' this could prompt positive reactions. Although these questions are similar to that asked at T_0 ("Have you ever considered running your own business?") they did force the students to be more concrete about their entrepreneurial intentions, as the questions focus on the likelihood of setting up, rather than just 'thinking about it'. This could explain the lower percentage across all groups for these questions compared to the percentage of positive responses for the question asked at T_0 .

It must, of course, be remembered that entrepreneurial intent is not the same as entrepreneurial behaviour: nevertheless, this is a relevant question to ask at T_1 , firstly because it could indicate a change in intent from T_0 to T_1 (because of an event) and secondly, once again, Ajzen (1991) pointed out that entrepreneurial intent can be an indicator for future entrepreneurial behaviour.

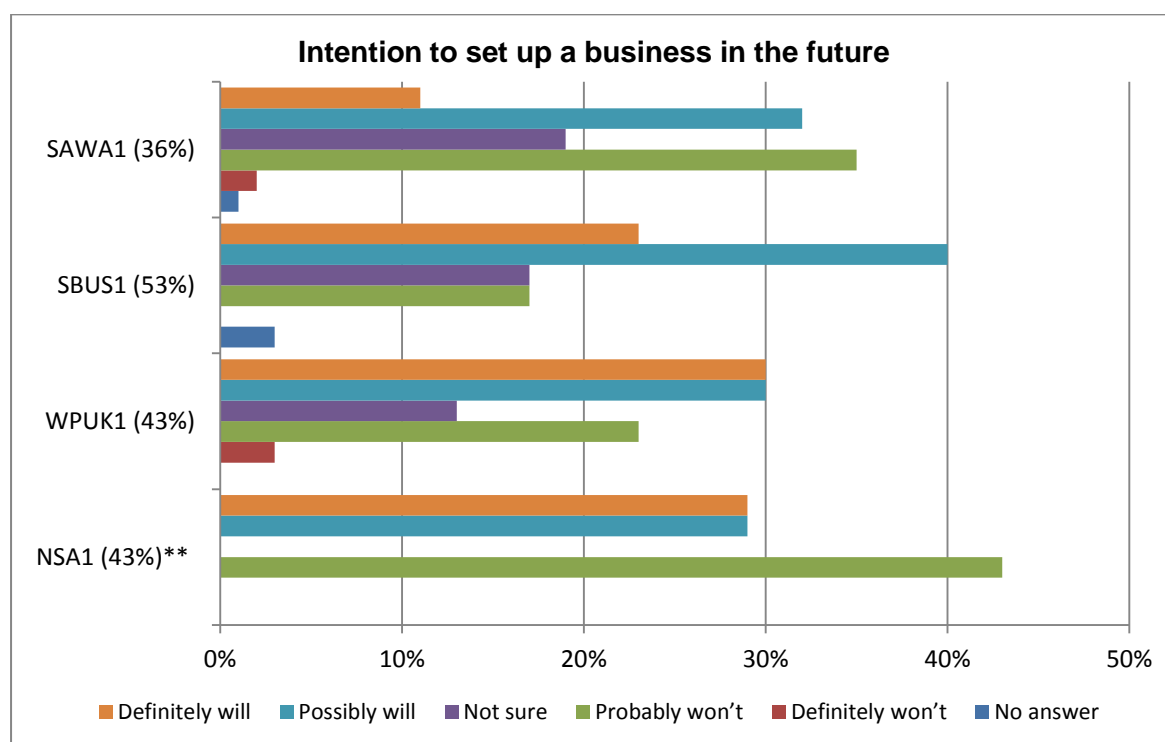
Figure 10: Entrepreneurial Intention within 2 Years at T_1



The percentage in brackets indicates those students with close family members who run a business

** The sample size for NSA1 was extremely small (7 students).

Figure 11: Entrepreneurial Intention in the Future at T₁



The percentage in brackets indicates those students with close family members who run a business

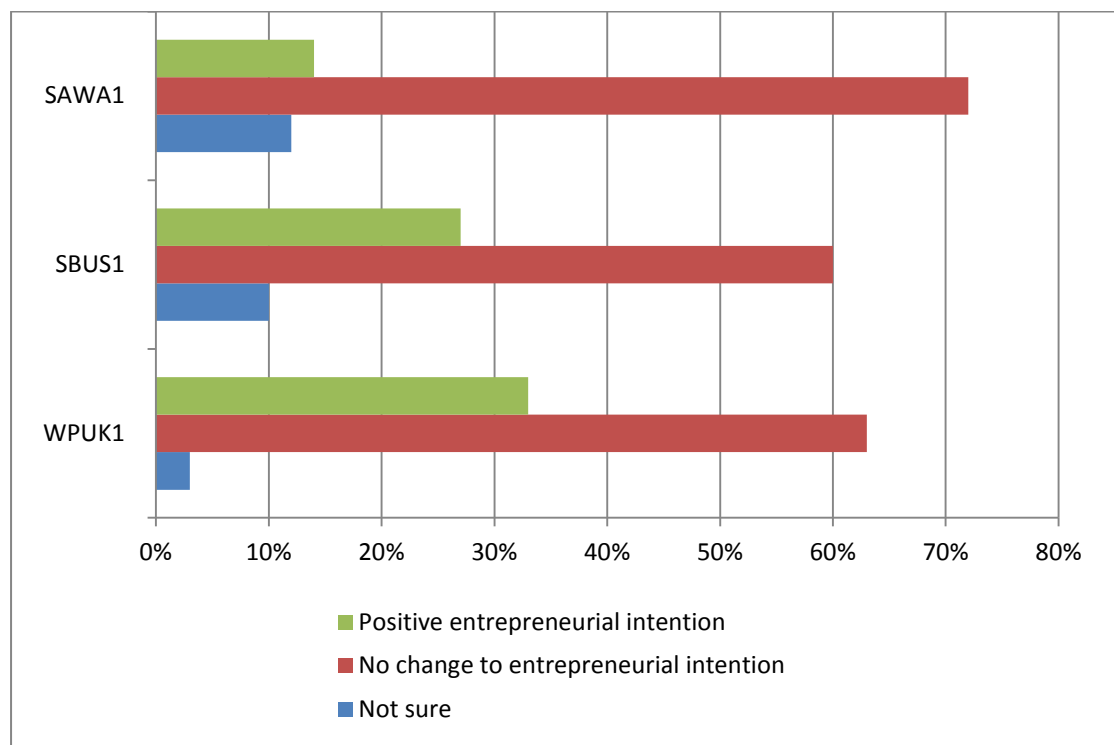
** The sample size for NSA1 was extremely small (7 students).

The percentages for setting up a business within two years are clearly low, but do indicate some interest in acting entrepreneurially. The percentages for setting up in the future are higher, but are still not as high as the positive responses received at T₀. 11% of SAWA1 students definitely plan to set up their own business at some point in the future, whereas 23% of SBUS1 students plan this. The WPUK1 show the highest percentage across the four groups, with 30%.

At T₁ it is the non-mobile students who have the highest response rate to the 'definitely start up a business' and the mobile business students who show the highest percentage for 'possibly start up a business'. This is different to the T₀ results, which show the mobile business as the highest percentage who 'considered starting up a business' with the non-mobile students in second place.

The students were also asked to indicate whether they felt the experience over the past year had influenced their decision to set up their own business. Figure 12 below shows the responses.

Figure 12: Influence of 'Event' on Entrepreneurial Intentions



N.B. NSA1 was not asked to complete this question as they had not undergone any 'event'.

Once again, it is the WPUK1 students who perceived the greatest positive impact on how the experience had influenced their decision to run their own business. An explanation for the strong(er) showing of the WPUK group for these questions could be that they were all business students who had spent one year in the working world and had therefore seen 'at first hand' how businesses operate (and were then either enthused by this to set up their own business and/or put off by 'corporate' business and decided that running their own business was preferable). The SAWA group consists of business and non-business students, some of whom had studied and not carried out a work placement, so they had not all undergone the same business experience and hence the positive benefits of the international work experience and its potential impact on the entrepreneurial decision could have been diluted by the presence of different disciplines and different experiences (work or study abroad) in this group.

The high response rate for 'No change' across the three groups would indicate that the experience had not had any impact on the entrepreneurial intent of many of the students. This could be because the timescale between finishing the event and the questionnaire was too short - students completed the second questionnaire almost immediately upon their

return from their sojourn abroad or their U.K. work placement, which did not allow much time for any impact of the event to be felt or recognised by the students.

Although the response rate for 'no change' is high (see Figures 11 and 12) and thus is an indication that the event did not have an impact on the students it must be remembered that this question asked about the entrepreneurial intent of the students, i.e. whether the event had impacted upon their desire to set up a business. It could be that while the event did not cause a shift in desire to become an entrepreneur, the students nevertheless still underwent a positive change in attitudes towards certain entrepreneurial dimensions. 'No change' could also indicate that, while the event did not cause a shift in attitude, some students already had a positive orientation towards entrepreneurial behaviour anyway.

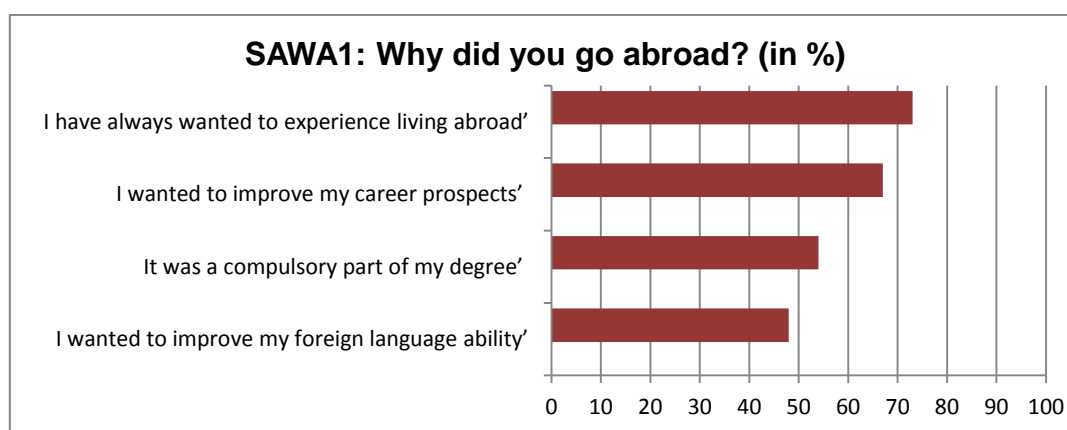
5.6 The mobility section

In this section a number of questions were asked of the SAWA1 students in order to glean as much information as possible about their mobility experience (without having to interview all of them). Some of these questions were multiple choice, with the students able to give as many responses as appropriate and some were open-ended, allowing the students the opportunity to expand upon their previous answers.

Why did you go abroad?

This question was also asked of the interviewees: I wanted to confirm that the motivation for mobility across all samples was comparable. Students were given a range of possible answers to this question and could choose any number of these. They were also given the opportunity to add their own reasons. The most popular answers were:

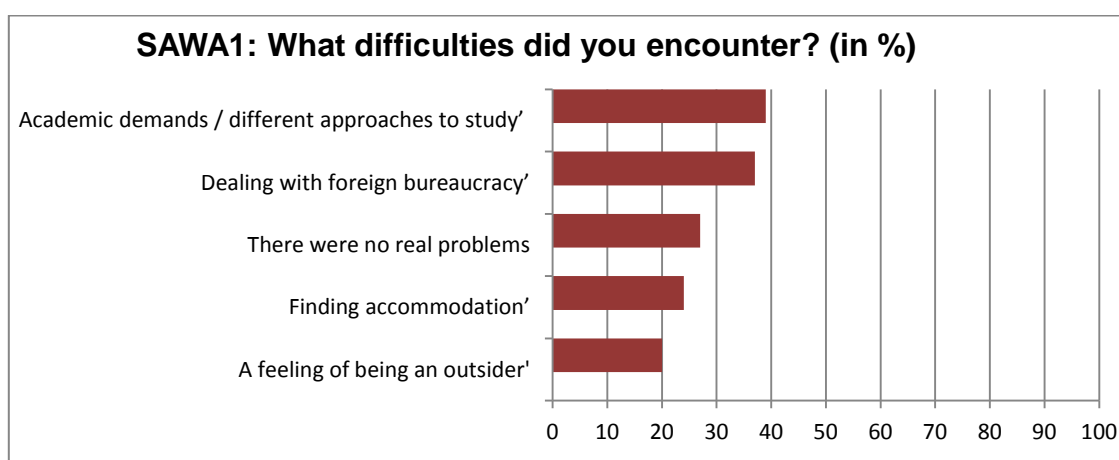
Figure 13: Reasons for Mobility



What major difficulties did you encounter?

Once again, a range of options was given for this question, with the possibility for the students to add more. The number of responses to each of these options was lower for this question than for the previous question (and fewer extra responses were given by the students), perhaps implying that, overall, the difficulties encountered were not considered to be major obstacles. The most popular responses included are shown in Figure 14.

Figure 14: Difficulties Encountered during Mobility

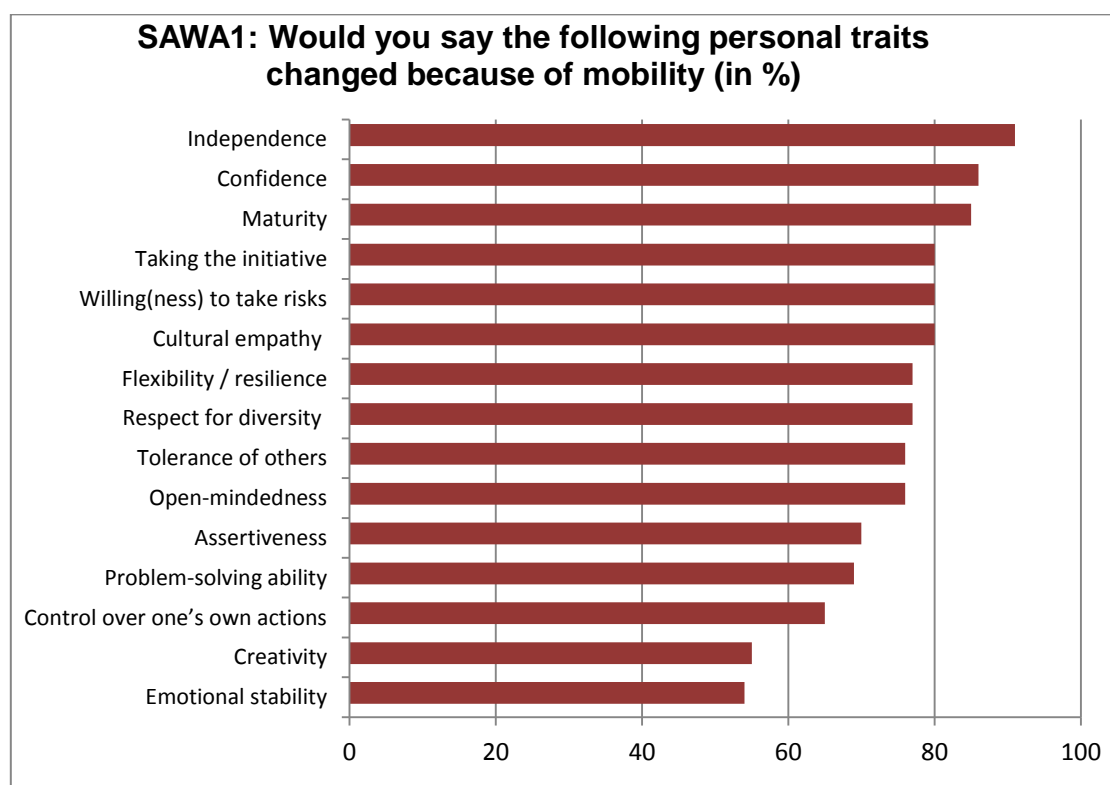


On reflection, would you say that the following personal traits changed because of mobility?

This question was designed to elicit the students' perception of any change they felt had taken place in their entrepreneurial personality traits (i.e. as part of sub-question 2) and thus I asked students to state to what extent they believed certain traits had changed because of their period abroad. The list provided by me contained an amalgamation of traits drawn from the literature review on student benefits of study or work placement abroad.

The students were asked to state whether they felt these traits had 'improved greatly', 'improved', 'stayed the same' or 'decreased' between T_0 and T_1 . Using 'improved greatly' and 'improved' as the markers, the percentages of students stating that certain traits had changed is shown in Figure 15.

Figure 15: Change in Personal Traits



The literature review concluded that personality traits are unlikely to change over time and yet the responses above suggest that the students did perceive some change – although these changes are perceived (and perhaps not actual) this is once again an indication of how complex human nature is. The traits listed above are not stand alone, e.g. problem-solving is connected to creativity, open-mindedness and tolerance of others are also closely related and some of these (confidence, willingness to take risks, control over one's actions and creativity) are also reflected as items in the attitude section of the questionnaire.

Overall, how would you rate your period abroad? Would you say that the experience has changed you as a person?

In the questionnaire 93% of students indicated that their mobility experience had been either 'extremely positive' or 'positive' (with 3% registering it as 'negative') with a similar number of students (94%) stating that the experience had changed them as a person, either 'definitely' or 'somewhat'.

What particular aspects of the experience impacted most on you?

Whether the students felt they had changed because of the year abroad is outlined in the previous question. This question sought to give some reasons as to the 'why'. What was it about the experience that caused these changes? This was an open-ended question and no

options were given. The responses were, in the main, relatively short – perhaps because the students were required to write their responses, i.e. this was more than just a tick box exercise.

Many students reiterated here the perceived development of certain traits, the most cited being confidence, independence and cultural learning/tolerance. These correspond to the findings in the previous question on how they felt they had changed. As to why these changes had occurred, the reasons given included being away from familiar surroundings and family/friends, being thrown into new situations, facing challenges on one's own, interacting with people from different backgrounds and cultures and experiencing different working worlds. In essence, it was the uncertainty, the newness of the environment, the challenges and the meeting of people that appeared to cause the changes. Some examples of the responses include:

“Being away from everything familiar and having to deal with things independently have made me so much more confident.”

“Being thrown into an entirely new situation taught me to be more self-reliant and independent and helped increase my confidence as a person.”

“Having to start life from scratch without knowing anything or anyone and getting through the toughness of this.”

and

“The people in Austin changed my way of thinking and they changed me. As a fairly frivolous example I am now a vegetarian having sworn previously that I could never give up meat. They made me far more culturally aware and far more interested in learning about other cultures. The travelling I did gave me a feeling of greater independence. I lived in a building of students of multiple backgrounds and ages and I feel it was these people that broadened my experiences and in some ways helped me grow up.”

In summary, the mobility section of the questionnaire allowed students to give more information about the mobility experience, although they were constrained in what they could say in some questions by the use of tick-boxes, where they were given a range of alternatives. Much of the information given by the students corresponds to that given by the interviewees (see Chapter 6 - in a few cases students both completed the questionnaire and were interviewed). For example, the challenges encountered mirror those expressed by the

interviewees; the vast majority of students felt that the mobility had been a positive one and had led to changes in a number of personal traits (again by and large mirrored by those given by the interviewees) and the reasons for these changes were because of the newness of the mobility situation, the different challenges faced and the people and cultures they encountered.

5.7 The attitude section

This section provides the findings from the statistical analysis of the attitude section in the questionnaire.

Entrepreneurial dimensions

The 42 items in the attitude section had been designed to cover attitudes towards a number of possible entrepreneurial dimensions, as described in Section 4.4.2. Some of these items came from previous entrepreneurship attitude tests (e.g. Athayde, 2009; Robinson *et al.*, 1991) and some were developed specifically for this research: there were very general areas of entrepreneurship under consideration, including locus of control, risk, innovation/creativity and achievement (covering determination, confidence, etc.). A factor analysis was used by both McCline *et al.* (2000) and Athayde (2009) in their studies to ascertain the entrepreneurial dimensions that were being measured and therefore it seemed appropriate to carry out a factor analysis on the attitude questions at T₀, in order to extract and define more clearly the underlying entrepreneurial dimensions that are being investigated in this research. A factor analysis is an interdependence technique, the main purpose of which is to define the underlying structure among the variables in the analysis (Hair *et al.*, 2006 p104). In other words, the factor analysis shows which items have been answered in a similar way so which items load together, based on how well various items are related to one another.

“Each factor represents several different variables, and factors turn out to be more efficient than individual variables at representing outcomes in certain studies...the goal is to represent those things that are related to one another by a more general name, such as a factor...the names [of the factors] reflect the content and the ideas underlying how they [the variables] might be related.” (Salkind, 2007 p277)

Using exploratory factor analysis (EFA) the 42 items were grouped into 11 different factors as seen in Table 6. The list of items is given in Appendix 7.

Table 6: Results of Factor Analysis and Cronbach's Alpha

FACTOR	NUMBER OF ITEMS	CRONBACH'S ALPHA	COMMENTS
F1	5	0.727	
F2	5	0.708	
F3	5	0.778	
F4	4	0.713	
F5	3	0.695	
F6	4	0.653	
F7a	4	0.647	All items
F7b	3	0.654	Without item CB2R
F8a	3	-0.373	All items
F8b	2	0.488	Without item AC1R
F9a	4	0.588	All items
F9b	3	0.529	Without item RB2
F10	2	0.523	
F11a	3	0.397	All items
F11b	2	0.462	Without item AB2

In order to test the reliability of these groupings, a Cronbach's alpha (CA) test was carried out. As already discussed, Hair *et al.* (2006) suggest that the usual lower limit for CA is 0.7 but can be as low as 0.6 in exploratory research. In addition, George and Mallery (2003) state that 0.7 is 'acceptable' and 0.6 is 'questionable' although the fewer the items in the analysis the lower the CA is likely to be, and the internal consistency can be deliberately skewed (to present a higher CA) by making items similar and thus consistent with one another. However, it is hard to justify using any factor with a CA of less than 0.6. Because of this, after analysing the factors and the CA results I decided to disregard those factors that had a CA of less than 0.65 (this cut-off point is also used by Thomas and Mueller, 2000). This left the following factors (Table 7) that would be used in my analysis:

Table 7: List of Factors and Cronbach's Alpha at T₀

FACTOR	NUMBER OF ITEMS	CRONBACH'S ALPHA
F1	5	0.727
F2	5	0.708
F3	5	0.778
F4	4	0.713
F5	3	0.695
F6	4	0.653
F7(b)	3	0.654

The factors that have been discarded all either have a low alpha (showing low internal consistency) and/or contain few items (once again leading to a low internal consistency alpha). This implies that 29 from the 42 items in the questionnaire across 7 factors would be analysed for my results, with between 3 – 5 items in each factor. This may seem few when compared to Robinson *et al.* (1991), who included an average of 18 items per dimension in their study, but Athayde (2009) only had between 4 – 6 items in each dimension in her study,

and therefore this relatively low number of items is consistent with some previous research. (N.B. Factor 7(b) is henceforward labelled as F7).

5.7.1 Entrepreneurial dimensions and factors

The factor groupings each contain a number of items that have been answered by the students in a similar way and which constitute a particular entrepreneurial dimension. The 42 attitude items in the questionnaire were based around four entrepreneurial dimensions: the factor analysis allows us to see how the usable 29 items were clustered together and whether they represented the original four dimensions or whether other dimensions emerge from this analysis.

In my analysis, each factor contained the following items and, as a consequence, a common entrepreneurial dimension in each factor can be derived:

F1: Innovative Ability

F1	ITEM IA1	I enjoy finding new ways to approach tasks
	ITEM IA2	I enjoy finding unusual solutions for problems
	ITEM IB1	I usually try to work things out for myself rather than follow instructions
	ITEM IC2	I believe that when pursuing goals or objectives, the final result is far more important than following the accepted procedures
	ITEM IC3	I believe that to be successful you can use practices that may seem unusual at first glance

These items all concur with the overarching concept of ‘innovation’ as discussed in Sections 2.3.3 and 4.6.2, in particular Mintzberg’s idea (1983, cited in Burns, 2007) that innovation is a method of breaking away from the established relationships, that it is something outside the norm and that it brings about change. The items cover such facets as putting ideas into practice and/or finding solutions or new approaches to problems. This is the practical application of creativity, being resourceful in terms of finding new ways to overcome difficulties or to achieve a particular goal and is, therefore, a measure of **innovative ability**.

F2 Willingness to take risk

F2	ITEM RA1R	I prefer to be in an environment where there are few risks and I know what is expected of me
	ITEM RA3R	If I felt that the chance of failure was high I would not start something
	ITEM RB1R	I rarely put myself in a position where I risk losing something important to me
	ITEM RC2R	I believe it is better to be safe than sorry
	ITEM IB4R	I rarely question the value of accepted procedures

Four of these items cover the concept of risk, in particular aversion to risk. Item IB4R is not directly concerned with risk, but does indicate an unwillingness to step outside accepted or normal behaviour and thus can signify an element of risk aversion. When these items are reverse scored, they measure a (positive) attitude to **taking risk**.

F3 Achievement (Goal-setting and Status Aspiration)

F3	ITEM AA4	I get a sense of accomplishment from pursuing new opportunities
	ITEM AB3	I always strive to be among the best in my peer group
	ITEM AB4	I set myself challenging goals
	ITEM AC3	I believe it is important to think about future possibilities
	ITEM RA2	I would like a job in an environment where the rewards are high but the risks are also high

Four of these items were originally designed to cover the concept of ‘achievement motivation’ as reviewed in Section 4.6.2. Cassidy and Lynn (1989) discuss dominance, competitiveness and status aspiration as elements of achievement motivation and Shane (2007) includes goal-setting and planning in his discussion. The outlier with these items is perhaps RA2, which considers risks and rewards: however, it could be argued that taking a risk implies the need/desire to achieve something (out of the ordinary) and this is tied in with status aspiration. Therefore this factor is a reflection of elements of **achievement such as goal-setting and status aspiration**.

F4 Creativity

F4	ITEM IA3	I get a thrill out of doing new things
	ITEM IA4	I like meeting new people so that I can exchange ideas and thoughts
	ITEM IB3	I usually take control in unstructured situations
	ITEM IC4	I believe a good imagination helps you do well in life

As with F1, these items originally stem from the concept of ‘innovation’; however, one could argue that they are not about innovation per se, but as they consider facets such as generating new ideas, having creative insight and having a positive approach and attitude to new or unstructured situations they are more akin to Keil’s definition (1987) of creativity as being able to turn stimuli into ideas. The items are more connected to the pre-cursor of innovative ability, so this factor measures **creativity**.

F5 Internal Locus of Control

F5	ITEM CA2	I feel that I am ultimately responsible for my own success in life
	ITEM CC2	I believe that the work of competent people will always be recognized
	ITEM CC3	I believe that my life is determined by my own actions

Items CA2 and CC3 ask about the level of control and belief in one’s own ability to manage and control one’s life and are consistent with Delmar’s (2006) definition of internal control as being concerned with how the achievement of a goal is dependent upon how one behaves (and not dependent upon the result of luck or external factors). Item CC2 is not directly connected to control but does indicate a belief that if one works hard one will be rewarded and hence can be considered to be an indication of ability to control how one is treated in life

– and also indirectly about control. These items stem from Robinson *et al.*'s EAO and the factor measures the level of **internal locus of control**.

F6 Achievement (Perseverance and Determination)

F6	ITEM AB1	I usually deal with important matters straightaway
	ITEM CB3	I usually get on with things rather than wait for everyone else
	ITEM CB4	Once I start something I see it through to the end
	ITEM IB2	I am able to work on several things at the same time

These items arise from three entrepreneurial dimensions (achievement, control and innovation) as discussed in Section 4.6.2. In addition, the items mirror Shane's (2007) definition, in part, of achievement motivation in that it requires perseverance and determination to sustain activity over a period of time. Thomas and Mueller (2000) discuss perseverance as an entrepreneurial facet, as do Vance *et al.* (2012). Hence this factor covers other dimensions of achievement motivation, namely **achievement: perseverance and determination**.

F7 Self-efficacy and Confidence

F7	ITEM CA1	I feel I know my strengths and my weaknesses
	ITEM CB1	I create my own opportunities for myself
	ITEM CC1	I have a lot of faith in my own abilities

These items have elements of control about them. Tajeddini and Mueller (2009) stated that confidence is concerned with someone's ability to accomplish goals that they set for themselves and to overcome the odds. The items in this factor reflect a level of self-awareness and/or self-efficacy and thus this factor covers **self-efficacy and confidence** in one's abilities.

The factor analysis gives rise to seven entrepreneurial dimensions which will be analysed in this research. As stated earlier it is practically impossible to demarcate these dimensions as only measuring one aspect of entrepreneurial attitude, as many of these are interlinked, for example creativity impacts upon innovative ability and these are both linked to risk-taking, but the factors indicate the main focus for each of these dimensions. As previously stated, my interest in the TPB model is confined mainly to the use of attitude (towards entrepreneurial dimensions and attitude towards perceived behavioural control PBC): the factors described above cover attitude towards some entrepreneurial dimensions, including towards control.

In the tripartite model, attitudes are multidimensional (according to Florin *et al.*, 2007): five of the factors (F1, F2, F3, F4 and F7) all contain a mixture of cognition, affect, and behaviour

items as described in Chapter 4, thus giving (according to Florin *et al.*) a better understanding of attitude as a whole. F5 (internal locus of control) contains no 'B' (behaviour) items and F6 (achievement: perseverance and determination) contains only 'B' items – implying that these particular factors do not measure across the full spectrum of dimensions of attitude for these concepts.

The factor analysis was carried out on the data received after T₀ (with a large enough sample size to give reliability to the outcome). Therefore, when analysing any changes in the two sets of data (at T₀ and at T₁) only the items that factored onto these concepts were used, i.e. 29 items. However, for the sake of consistency in the questionnaire and so as not to give any indication of what was relevant and not relevant to the respondents, all 42 items were kept in the questionnaire when it was distributed for the second time at T₁.

After the data were collected at T₁ I carried out the same reliability test (Cronbach's Alpha) on the factors and the results of this analysis are given in Table 8.

Table 8: List of Factors and Cronbach's Alpha at T₁

FACTOR	NUMBER OF ITEMS	CRONBACH'S ALPHA
F1	5	0.682
F2	5	0.736
F3	5	0.745
F4	4	0.514
F5	3	0.793
F6	4	0.647
F7(b)	3	0.718

All except one factor, F4, are around or above my cut-off point of 0.65, indicating internal consistency and also similarity with the CA's at T₀. The lower CA result for F4 is an anomaly: this could be explained by the lower sample size at T₁ (although this is the case for all factors) or, more likely, the complex nature of creativity and how the creativity items were answered by the students at T₁. This complexity is discussed in more detail in Chapter 7.

5.7.2 Attitude findings

5.7.2.1 The use of hypotheses

Sub-question 1 reads "Are there any differences between mobile and non-mobile students in their entrepreneurial attitudes before study/work abroad?" Underpinning this research question is the premise that mobile and non-mobile groups start from the same position, at least in terms of their entrepreneurial attitudes, i.e. there is no difference between the groups

at this stage. A null hypothesis states that there is no significant difference between the groups under investigation for a certain item (Salkind, 2008). Therefore the null hypothesis for sub-question 1 would be:

H1 = “There is no difference between mobile and non-mobile students in their entrepreneurial attitudes at T_0 .”

The first part of sub-question 2 reads “Is there a change in students’ entrepreneurial attitude pre- and post- study/work abroad?” My premise here is that the mobile students do undergo change in entrepreneurial attitude and therefore the hypothesis for this question is:

H2 = “Mobile students’ entrepreneurial attitudes are different pre- and post-study/work abroad.”

(N.B. The second part of this sub-question does not measure attitude (it considers perceived personality change) and no statistical analysis on this data was carried out at this point).

Sub-question 3 reads “Is there a similar change in results for non-mobile students?” The premise is that non-mobile students do not undergo the same changes as the mobile students and therefore, as with sub-question 1, a null hypothesis can be formulated. This is:

H3 = “There is no change in entrepreneurial attitudes for non-mobile students over the course of a year.”

These three hypotheses overarch a number of possible sub-hypotheses, if we consider that we are investigating 7 factors and at least two groups (for example, a sub-null hypothesis under H1 could be “There is no significant difference between SAWA and WPUK students in their attitude to risk taking at T_0 .”) However, it is felt that including all possible hypotheses would over-complicate the discussion and therefore these three hypotheses are used as the main focus for the discussion.

T-test and analysis of variance (ANOVA)

The means at factor level for each hypothesis are given in tables below. The means are given at scale level, i.e. they are the means of the averages of all items within the factor. Looking at these at face value there would appear to be little change or difference across the groups. Two issues arise from using the means however. Firstly, using the mean for the whole factor does not allow us to investigate what is happening within the factor itself, at

individual item level. In my view it is important to be able to analyse change at item level within individual factors because this enables a more detailed appraisal of any change that has occurred. Secondly, simply comparing means of factors does not give a full picture of change or difference, as doing so ignores the fact that the sample size of the groups is different.

Therefore further analysis is required to see if there is any difference between the groups at T_0 and whether there is any change within each individual group from T_0 to T_1 . The first analysis is carried out using analysis of variance (ANOVA), at item level and the second analysis is carried out using paired t-tests.

A t-test computes the statistical significance of the difference between two groups of one dependent variable (in this case an item) by comparing means. The t-test is only useful for comparing between two independent sample means, as multiple t-tests inflate the overall Type I error rate (the probability of incorrectly accepting a hypothesis, i.e. assuming that a correlation exists when it does not. See Hair *et al.*, 2006). In this research, at T_0 we have more than two groups that need to be compared. In such cases, analysis of variance (ANOVA) can be carried out, as this analysis minimises this Type I error. Unpaired t-tests can then be used, post-hoc, if the ANOVA results indicate a difference in order to investigate which group or which pairing is causing the difference. An unpaired t-test investigates whether there are any significant differences between the different groups. A paired t-test, on the other hand, compares the same group at T_0 and at T_1 : in this research it is used to highlight what impact an intervention (study or work abroad, U.K. work placement, or no intervention) has had on the group. Thus the process is:

For H1:

1. Compute average mean at factor level for each factor
2. Carry out ANOVA on each item for the three groups
3. If half or more of the items within a factor indicate a significant difference decide if the factor as a whole is different between the three groups
4. Carry out unpaired t-tests between each pair of groups to see where the significant difference lies
5. Do the means, both at factor and at item level, reveal anything about differences between the groups?

For H2 and H3:

1. Compute the average mean at factor level for the group under analysis

2. Carry out paired t-tests for all items
3. If half or more of the items within a factor show a significant difference then decide if the whole factor has changed between T_0 and T_1
4. Do the means, both at factor and at item level, reveal anything about the change?

5.7.2.2 Analyses

Using ANOVA, the first set of results shows whether or not there is a significant difference in the items within each factor and hence a judgement can be made about significant differences for each entrepreneurial dimension as a whole. This first set of results compares SAWA0 (the mobile students), WPUK0 (the U.K. work placement students) and NSA0 (the non-mobile, non-placement students).

H1 = “There is no difference between mobile and non-mobile students in their entrepreneurial attitudes at T_0 .”

Table 9a shows the mean of all the item averages at factor level for the three groups at T_0 . This shows that the experimental group SAWA0 had the highest mean scores at factor level in three out of the seven factors (F1, F2 and F4).

Table 9a: Means at Factor Level for SAWA0, WPUK0 and NSA0

	SAWA0	WPUK0	NSA0
F1 Innovative Ability	5.24	5.04	5.09
F2 Willingness to take risk	4.25	4.01	3.68
F3 Achievement (goal setting and status aspiration)	5.88	5.92	5.59
F4 Creativity	5.91	5.41	5.49
F5 Internal locus of control	5.55	5.76	4.9
F6 Achievement (perseverance and determination)	5.53	5.91	5.29
F7 Self-efficacy and confidence	5.44	5.44	5.06

In order to see to what extent there is actual difference between the groups at this stage and to provide an analysis at item level (to gain a more detailed analysis) Table 9b gives the results of the ANOVA. If half or more of the items within the factor show a significant difference I have inferred that there is evidence to suggest that the factor as a whole has changed.

Table 9b: ANOVA Results at T_0 (SAWA0, WPUK0, NSA0)

		F	P-value	Comment
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F1 Innovative ability	IA1	2.175	0.114	There is no significant difference between any of the items in this factor and hence the conclusion is that at T ₀ there is no difference between the groups in their attitude to innovative ability.
	IA2	1.191	0.304	
	IC2	1.428	0.240	
	IB1	0.917	0.400	
	IC3	1.159	0.314	
F2 Willingness to take risk	RA1R	2.757	0.064	Two out of the five items show no significant difference between the groups, with another two (RA1R and RB1R) being very close to the 0.05 p-value. The result for item RA3R indicates that there is a clear significant difference here.
	RC2R	1.016	0.362	
	RB1R	2.737	0.065	
	RA3R	4.521	0.011	
	IB4R	1.266	0.282	
F3 Achievement (goal setting and status aspiration)	AB4	0.071	0.931	There is one item, AA4, which shows a significant difference.
	AA4	3.471	0.031	
	AC3	0.347	0.706	
	RA2	1.451	0.235	
	AB3	1.696	0.184	
F4 Creativity	IA3	4.957	0.007	Three out of the four results show significant differences
	IA4	3.672	0.026	
	IC4	6.675	0.001	
	IB3	1.113	0.329	
F5 Internal locus of control	CC3	0.314	0.730	There is no significant difference between any of the items in this factor and hence the conclusion is that at T ₀ there is no difference between the three groups in their attitude to control.
	CA2	0.124	0.883	
	CC2	0.009	0.990	
F6 Achievement (perseverance and determination)	CB4	2.260	0.105	Three out of four items show no significant difference. The result for item AB1 shows a significant difference.
	CB3	1.673	0.188	
	AB1	6.979	0.001	
	IB2	2.522	0.081	
F7 Self-efficacy and confidence	CA1	0.810	0.445	There is no significant difference between any of the items in this factor and hence the conclusion is that at T ₀ there is no difference between the three groups in their attitude to self-efficacy and confidence.
	CC1	0.497	0.608	
	CB1	0.535	0.585	

Although a few individual items do show significant differences within the factors only one factor, F4 creativity, has a majority of items with significant differences. The mean at factor level was higher for this dimension for the SAWA students, hence this suggests that the SAWA0 students display a more positive attitude to creativity at T₀ than the control groups. Table 9c below gives an overview of t-test results carried out between each set of two groups for all the items where there is a significant difference. This indicates that the major differences in attitude to creativity (F4) occur between the WPUK students and the SAWA students.

Table 9c: T-test Results at T₀ (SAWA0, WPUK0, NSA0)

		MEAN	STANDARD DEVIATION	T-TEST
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		SAWA0	WPUK0	NSA0	SAWA0	WPUK0	NSA0	NSA/WPUK	NSA/SAWA	WPUK/SAWA
F2	RA3R	3.966	4.187	3.294	1.493	1.350	1.337	0.001	0.011	0.228
F3	AA4	6.041	5.829	5.714	0.912	0.813	0.957	0.508	0.045	0.054
F4	IA3	5.996	5.617	5.818	0.973	1.007	1.102	0.349	0.321	0.001
	IA4	5.963	5.580	5.852	1.134	1.149	1.209	0.253	0.590	0.006
	IC4	5.897	5.370	5.970	1.158	1.382	1.058	0.025	0.724	0.0004
F6	AB1	5.649	6.135	5.824	1.112	0.786	1.058	0.083	0.383	0.0002

The results for the SAWA group indicate that, in 6 out of the 7 entrepreneurial concepts, there is no significant difference between the groups at T_0 . The relevance and significance of the difference in F4 creativity will be discussed in Chapter 7, but at this stage the conclusion is that, with the exception of F4, the null hypothesis holds and there is no difference between mobile and non-mobile students in their entrepreneurial attitudes at T_0 .

The SAWA group consists of mobile students from a number of academic disciplines. The following set of results compares only those mobile students from the business disciplines, the sub group SBUS0, with WPUK0 and NSA0 for H1, so there is a greater level of parity in terms of degree discipline between the experimental and the control groups.

Table 10a shows the factor means for SBUS and the two control groups. The SBUS group has the highest mean in 4 of the 7 factors.

Table 10a: Means at Factor Level for SBUS0, WPUK0 and NSA0

	SBUS0	WPUK0	NSA0
F1 Innovative Ability	5.39	5.04	5.09
F2 Willingness to take risk	3.80	4.01	3.68
F3 Achievement (goal setting and status aspiration)	6.13	5.92	5.59
F4 Creativity	5.85	5.41	5.49
F5 Internal locus of control	5.70	5.76	4.9
F6 Achievement (perseverance and determination)	5.76	5.91	5.29
F7 Self-efficacy and confidence	5.72	5.44	5.06

In order to give a more detailed analysis of the differences in these factors at individual item level Table 10b shows the results of the ANOVA.

Table 10b: ANOVA Results at T_0 (SBUS0, WPUK0, NSA0)

		F	P-value	Comment
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F1 Innovative ability	IA1	2.070	0.128	Four out of five items show no significant difference. The result for item IC2 shows a significant difference.
	IA2	1.253	0.287	
	IC2	3.794	0.024	
	IB1	1.381	0.253	
	IC3	1.625	0.199	
F2 Willingness to take risk	RA1R	2.573	0.078	Two from five items, RB1R and RA3R, indicate a significant difference between the groups.
	RC2R	1.178	0.309	
	RB1R	3.131	0.045	
	RA3R	4.388	0.013	
	IB4R	2.221	0.111	
F3 Achievement (goal setting and status aspiration)	AB4	0.893	0.410	One item from five, AA4, shows a significant difference between the groups.
	AA4	3.525	0.031	
	AC3	1.484	0.229	
	RA2	1.108	0.331	
	AB3	0.596	0.551	
F4 Creativity	IA3	2.842	0.060	One item from four, IC4, shows a significant difference between the groups.
	IA4	2.881	0.058	
	IC4	3.770	0.024	
	IB3	0.880	0.416	
F5 Internal locus of control	CC3	1.497	0.226	There is no significant difference between any of the items in this factor and hence the conclusion is that at T ₀ there is no difference between the three groups in their attitude to control.
	CA2	0.363	0.695	
	CC2	0.934	0.394	
F6 Achievement (perseverance and determination)	CB4	0.949	0.388	There is no significant difference between any of the items in this factor (although 1 item, IB2, is very close to 0.05) and hence the conclusion is that at T ₀ there is no difference between the three groups in their attitude to achievement in terms of perseverance and determination
	CB3	1.725	0.180	
	AB1	1.940	0.146	
	IB2	2.809	0.062	
F7 Self-efficacy and confidence	CA1	0.406	0.666	There is no significant difference between any of the items in this factor and hence the conclusion is that at T ₀ there is no difference between the three groups in their attitude to self-efficacy and confidence.
	CC1	2.071	0.128	
	CB1	1.398	0.249	

Table 10c gives an overview of t-test results carried out between each set of two groups for the items where there is a significant difference.

Table 10c: T-test Results at T₀ (SBUS0, WPUK0, NSA0)

		MEAN			STANDARD DEVIATION			T-TEST*		
		SBUS0	WPUK0	NSA0	SBUS0	WPUK0	NSA0	NSA/SBUS	WPUK/SBUS	SBUS/SAWA
F1	IC2	5.532	4.987	5.470	1.235	1.478	1.331	0.806	0.009	0.0003
F2	RB1R	3.462	3.462	2.757	1.5	1.542	1.250	0.017	0.996	0.113
	RA3R	3.913	4.187	3.294	1.615	1.350	1.337	0.048	0.232	0.684
F3	AA4	6.108	5.829	5.714	0.895	0.813	0.957	0.031	0.033	0.410
F4	IC4	5.804	5.370	5.970	1.215	1.382	1.058	0.482	0.029	0.364

*The analysis of NSA/WPUK is not shown here, as this is the same test as above.

Despite the fact that the SBUS group had overall higher mean scores in 4 of the factors none of the factors includes more than half of the items showing a significant difference. On the basis of this analysis it has to be concluded that across all 7 factors there is no difference between the SBUS group and the control groups and therefore, once again, the null-hypothesis holds, but in this case without exception. This implies that business students

exhibit no difference in attitude towards these entrepreneurial dimensions, regardless of their intention to undertake mobility, a work placement, or continue with their studies.

H2 = “Mobile students’ entrepreneurial attitudes are different pre- and post-study/work abroad.”

The purpose of this analysis is to see if there is any change in the factors between T_0 and T_1 in the mobile students (groups SAWA0 and SAWA1). As I am comparing the same group over time, a paired t-test analysis can be used. (Only those students from the SAWA0 who also completed the questionnaire at T_1 are included in this analysis). Table 11a shows a comparison of the means at T_0 and T_1 for the SAWA group.

Table 11a: Means at Factor Level for SAWA0 and SAWA1

	SAWA0	SAWA1
F1 Innovative ability	5.24	5.11
F2 Willingness to take risk	4.25	3.87
F3 Achievement (goal setting and status aspiration))	5.88	5.89
F4 Creativity	5.91	5.81
F5 Internal locus of control	5.55	5.56
F6 Achievement (perseverance and determination)	5.53	5.43
F7 Self-efficacy and confidence	5.44	5.58

The mean scores indicate that, at factor level, F3 (marginally), F5 (marginally) and F7 have increased over the year. Table 11b shows the paired t-test results for this group.

Both F2 willingness to take risk and F7 self-efficacy and confidence have a majority of items showing significant differences at individual item level. Looking at the factor level mean scores for these two, F2 has decreased over the time period and F7 has increased. A discussion of why this is the case is given in Chapter 7. F6 achievement (perseverance and determination) has two from four items where there is a difference and the factor mean score has decreased over the year. This would imply that there is some evidence to suggest that this factor is affected by the mobility experience but that further investigation is required to confirm this. As with the other two factors, a detailed discussion of the reasons for this ambiguity is given in Chapter 7.

Table 11b: T-test Results at T₀ and T₁ (SAWA0 and SAWA1)

		MEAN		STANDARD DEVIATION		T-TEST SIG DIF	COMMENT
		T ₀	T ₁	T ₀	T ₁		
F1 Innovative ability	IA1	5.479	5.388	1.045	1.004	0.291	One item shows a significant difference in this factor
	IA2	5.413	5.178	1.199	1.166	0.020	
	IC2	5.069	4.895	1.451	1.452	0.224	
	IB1	4.809	4.645	1.418	1.33	0.150	
	IC3	5.441	5.415	1.026	0.962	0.658	
F2 Willingness to take risk	RA1R	4.246	3.821	1.421	1.511	0.045	Four out of the five items show significant differences
	RC2R	4.616	3.667	1.287	1.358	0.000	
	RB1R	4.655	3.416	1.542	1.441	0.000	
	RA3R	4.020	4.048	1.391	1.405	0.858	
	IB4R	3.712	4.354	1.614	1.498	0.003	
F3 Achievement (goal setting and status aspiration)	AB4	5.586	5.648	1.256	1.139	0.580	No significant differences in this factor
	AA4	6.123	6.069	0.837	0.855	0.399	
	AC3	6.102	6.124	0.868	0.865	0.802	
	RA2	6.150	6.013	0.865	1.023	0.072	
	AB3	5.482	5.579	1.344	1.310	0.451	
F4 Creativity	IA3	6.165	6.111	0.849	0.916	0.468	No significant differences in this factor
	IA4	6.103	6.028	1.045	1.238	0.434	
	IC4	5.944	5.812	1.200	1.070	0.149	
	IB3	5.411	5.293	1.342	1.243	0.190	
F5 Internal locus of control	CC3	5.835	5.869	1.037	1.062	0.761	No significant differences in this factor
	CA2	5.952	5.979	1.116	1.159	0.758	
	CC2	4.869	4.835	1.410	1.544	0.861	
F6 Achievement (perseverance and determination)	CB4	5.413	5.423	1.233	1.191	1.000	Two from four items show significant differences
	CB3	5.595	5.354	0.979	1.143	0.023	
	AB1	5.689	5.349	1.050	1.310	0.000	
	IB2	5.452	5.583	1.180	1.080	0.219	
F7 Self-efficacy and confidence	CA1	5.801	5.780	0.929	0.859	0.797	Two from three items show significant differences
	CC1	5.411	5.630	1.316	1.101	0.013	
	CB1	5.103	5.315	1.278	1.196	0.040	

Once again, in order to provide a more direct comparison with the control groups, Table 12a shows the comparisons of the means at factor level for the sub-group SBUS at T₀ and T₁.

Table 12a: Means at Factor Level for SBUS0 and SBUS1

	SBUS0	SBUS1
F1 Innovative ability	5.39	5.29
F2 Willingness to take risk	3.80	3.93
F3 Achievement (goal setting and status aspiration))	6.13	6.19
F4 Creativity	5.85	5.87
F5 Internal locus of control	5.70	5.78
F6 Achievement (perseverance and determination)	5.76	5.57
F7 Self-efficacy and confidence	5.72	5.77

The table shows that, for the SBUS group, 5 from the 7 factors have higher mean scores at T_1 than at T_0 . These factors are F2, F3, F4, F5 and F7. Table 12b shows the paired t-test results for this sub-group (SBUS0 and SBUS1).

Table 12b: T-test Results at T_0 and T_1 (SBUS0 and SBUS1)

		MEAN		STANDARD DEVIATION		T-TEST SIG DIF	COMMENT
		T_0	T_1	T_0	T_1		
F1 Innovative ability	IA1	5.500	5.678	1.138	1.020	0.202	No significant differences in this factor
	IA2	5.671	5.428	1.069	0.959	0.355	
	IC2	5.285	4.963	1.329	1.453	0.255	
	IB1	4.857	4.714	1.380	1.356	0.536	
	IC3	5.642	5.678	0.951	0.818	0.787	
F2 Willingness to take risk	RA1R	3.785	3.964	1.423	1.452	0.433	One item shows a significant difference
	RC2R	3.071	3.678	1.274	1.441	0.026	
	RB1R	3.444	3.571	1.761	1.573	0.636	
	RA3R	4.107	4.178	1.257	1.188	0.794	
	IB4R	4.607	4.285	1.474	1.606	0.326	
F3 Achievement (goal setting and status aspiration)	AB4	5.964	6.071	0.881	0.940	0.630	No significant differences in this factor
	AA4	6.142	6.107	0.848	0.786	0.865	
	AC3	6.357	6.428	0.621	0.504	0.625	
	RA2	6.357	6.428	0.678	0.527	0.662	
	AB3	5.814	5.892	1.210	1.100	0.691	
F4 Creativity	IA3	6.074	6.321	0.916	0.669	0.089	No significant differences in this factor
	IA4	5.928	6.000	1.215	1.276	0.690	
	IC4	5.571	5.678	1.317	1.056	0.326	
	IB3	5.821	5.500	1.248	1.262	0.141	
F5 Internal locus of control	CC3	5.928	6.037	0.813	0.807	0.602	No significant differences in this factor
	CA2	6.142	6.321	0.755	0.818	0.169	
	CC2	5.035	5.000	1.318	1.333	0.879	
F6 Achievement (perseverance and determination)	CB4	5.607	5.555	1.133	1.339	0.873	One item shows a significant difference
	CB3	5.750	5.321	0.844	1.020	0.049	
	AB1	6.185	5.750	1.039	1.404	0.203	
	IB2	5.500	5.642	1.105	1.129	0.475	
F7 Self-efficacy and confidence	CA1	5.892	5.785	0.737	0.686	0.522	No significant differences in this factor
	CC1	5.750	5.857	1.039	1.112	0.573	
	CB1	5.518	5.678	1.155	1.218	0.424	

Comparing the differences in SBUS students, only two items (across two factors) show any level of significant difference. As a result, it is concluded that there is no real change in this group between T_0 and T_1 .

In conclusion for H2, there is statistical evidence of change over time in the experimental group SAWA, across 2 factors; risk taking propensity and self-efficacy/confidence, and arguably also some change in achievement (determination and perseverance), therefore the hypothesis can be supported. If the focus had been on the mobile business students (SBUS) as the experimental group then the hypothesis would have been rejected as the t-test for this group show no evidence of significant difference across time.

H3 = “There is no change in entrepreneurial attitudes for non-mobile students over the course of a year.”

This hypothesis is derived from research question 3, which considers whether the control groups also exhibit change in attitude over the year (as a result of work experience in the U.K. or as a result of continuing to study at the home institution). For this analysis I have considered the two control groups separately.

Table 13a gives the mean scores at factor level for the work placement in the U.K. students. Factors F3, F4, F5 (marginally) and F7 (marginally) have all increased over the time period.

Table 13a: Means at Factor Level for WPUK0 and WPUK1

	WPUK0	WPUK1
F1 Innovative ability	5.04	4.98
F2 Willingness to take risk	4.01	3.87
F3 Achievement (goal setting and status aspiration))	5.92	5.94
F4 Creativity	5.41	5.49
F5 Internal locus of control	5.76	5.77
F6 Achievement (perseverance and determination)	5.91	5.89
F7 Self-efficacy and confidence	5.44	5.45

Table 13b shows the paired t-test results for the U.K. work placement students between T_0 and T_1 .

Table 13b: T-test Results at T₀ and T₁ (WPUK0 and WPUK1)

		MEAN		STANDARD DEVIATION		T-TEST SIG DIF	COMMENT
		T ₀	T ₁	T ₀	T ₁		
F1 Innovative ability	IA1	5.0	5.233	1.050	1.251	0.394	No significant differences in this factor
	IA2	5.2	4.933	1.4	1.437	0.38	
	IC2	4.667	4.9	1.470	1.155	0.516	
	IB1	5.067	4.8	1.311	1.349	0.446	
	IC3	5.267	5.034	0.907	0.823	0.206	
F2 Willingness to take risk	RA1R	4.0	3.8	1.232	1.297	0.489	No significant differences in this factor
	RC2R	3.8	3.586	1.186	1.150	0.452	
	RB1R	3.667	3.552	1.241	1.242	0.667	
	RA3R	4.345	4.367	1.203	1.377	1.0	
	IB4R	4.267	4.067	1.388	1.461	0.592	
F3 Achievement (goal setting and status aspiration)	AB4	5.8	5.897	0.887	0.86	0.758	No significant differences in this factor
	AA4	5.867	5.69	0.819	0.967	0.339	
	AC3	6.067	6.167	0.828	0.648	0.639	
	RA2	6.367	6.233	0.615	0.728	0.380	
	AB3	5.5	5.7	0.974	0.877	0.339	
F4 Creativity	IA3	5.533	5.767	0.937	0.817	0.199	No significant differences in this factor
	IA4	5.467	5.467	1.196	1.167	1.0	
	IC4	5.433	5.467	1.135	0.973	0.895	
	IB3	5.207	5.267	1.177	1.112	0.614	
F5 Internal locus of control	CC3	5.967	6.033	0.556	0.615	0.645	No significant differences in this factor
	CA2	6.1	6.167	0.712	0.592	0.677	
	CC2	5.2	5.1	1.4	1.296	0.745	
F6 Achievement (perseverance and determination)	CB4	5.8	5.667	0.997	0.758	0.564	No significant differences in this factor
	CB3	5.633	5.7	0.964	0.877	0.763	
	AB1	6.2	6.233	0.714	0.774	0.839	
	IB2	6.0	5.967	0.743	0.669	0.813	
F7 Self-efficacy and confidence	CA1	5.6	5.467	1.07	1.167	0.662	No significant differences in this factor
	CC1	5.567	5.68	0.817	0.712	0.558	
	CB1	5.167	5.2	1.117	1.215	0.901	

None of the items in any of the factors show significant difference between T₀ and T₁ so statistically the conclusion has to be that there is no change in the students' attitudes due to work experience in any of the factors under investigation for the WPUK group. As with the experimental group, a discussion of these findings is given in Chapter 7.

The statistical evidence for the NSA group is unreliable, in as much as the sample size for this group was extremely small (only 7 students responded to the questionnaire at T₁). However, out of interest the factor means are given in Table 14 a and the t-test results for this group are given in Table 14b and show no significant difference (and hence no change) across any of the factors.

Table 14a: Means at Factor Level for NSA0 and NSA1

	NSA0	NSA1
F1 Innovative ability	5.09	4.86
F2 Willingness to take risk	3.68	3.47
F3 Achievement (goal setting and status aspiration))	5.59	5.46
F4 Creativity	5.49	5.89
F5 Internal locus of control	4.9	5.12
F6 Achievement (perseverance and determination)	5.29	5.7
F7 Self-efficacy and confidence	5.06	5.34

Table 14b: T-test Results at T₀ and T₁ (NSA0 and NSA1)

		MEAN		STANDARD DEVIATION		T-TEST SIG DIF	COMMENT
		T ₀	T ₁	T ₀	T ₁		
F1 Innovative ability	IA1	5.142	5.285	0.899	1.253	0.603	No significant differences in this factor
	IA2	5.000	4.714	1.291	1.112	0.355	
	IC2	5.285	5.000	0.951	1.291	0.457	
	IB1	4.714	4.000	0.951	1.154	0.253	
	IC3	5.285	5.285	1.112	0.755	1.000	
F2 Willingness to take risk	RA1R	3.714	3.285	1.603	1.704	0.199	No significant differences in this factor
	RC2R	3.142	2.285	1.345	1.253	0.172	
	RB1R	2.833	3.000	1.329	1.264	0.809	
	RA3R	4.142	4.571	1.215	1.618	0.649	
	IB4R	4.571	4.142	1.618	1.069	0.407	
F3 Achievement (goal setting and status aspiration)	AB4	5.000	5.142	1.527	1.215	0.804	No significant differences in this factor
	AA4	5.857	5.714	0.378	1.253	0.689	
	AC3	5.714	5.857	0.755	0.690	0.603	
	RA2	6.285	6.142	0.755	0.690	0.355	
	AB3	5.142	4.428	1.215	1.718	0.219	
F4 Creativity	IA3	5.428	5.857	1.133	1.215	0.289	No significant differences in this factor
	IA4	5.428	6.000	1.133	0.816	0.172	
	IC4	6.000	6.285	0.577	0.755	0.172	
	IB3	5.142	5.428	0.690	1.133	0.568	
F5 Internal locus of control	CC3	5.000	5.285	1.154	1.301	0.355	No significant differences in this factor
	CA2	5.428	5.514	1.133	1.397	0.818	
	CC2	4.285	4.571	1.799	1.272	0.726	
F6 Achievement (perseverance and determination)	CB4	5.333	5.666	1.032	1.366	0.465	No significant differences in this factor
	CB3	5.000	5.714	0.816	0.755	0.140	
	AB1	5.571	5.857	0.975	1.069	0.522	
	IB2	5.285	5.571	0.755	1.133	0.172	
F7 Self-efficacy and confidence	CA1	5.333	5.833	0.816	0.983	0.203	No significant differences in this factor
	CC1	5.285	5.571	1.112	0.975	1.000	
	CB1	4.571	4.571	1.511	1.397	0.788	

5.8 Quantitative data conclusions

The chapter has focussed mainly on analysing data that provide answers to research questions 1, 2 and 3 (and partly 4). Summarising the above analyses leads to the following conclusions:

1. The demographic data of the students involved across all groups showed that more females than males responded to the questionnaire; this is not surprising, particularly for the mobility groups, as this corresponds to the fact that more females than males undertake mobility. The majority of students were British and the majority of all participants were in the age group 20-25.
2. There is a higher rate of students who are considering starting a business at T_0 than there are students who intend to start a business at T_1 across all groups. There is also some evidence of the experience (for the SAWA and the WPUK groups) having had an impact upon the intention to start a business, as some of the students responded positively to this question.
3. A factor analysis on the data from the attitude section of the questionnaire gave 7 entrepreneurial dimensions (factors) that could be considered in the research.

For research question 1:

4. There was no significant difference between the experimental and the control group at T_0 across 6 of the 7 factors. The only factor that showed a difference was attitude towards creativity (F4).

For research question 2:

5. Analysis of the data in the 'mobility experience' section of the questionnaire shows that the SAWA group were mainly positive about their experience abroad. The students, when asked to indicate which traits (if any) they felt had changed as a result of their time abroad, put independence, confidence, maturity, taking the initiative and willingness to take risks as the main traits which they felt had changed.
6. As stated in point (5) above, the SAWA group were asked in the mobility section to rate a change in entrepreneurial personality traits attributable to the time abroad

across a range of dimensions. Two of the highest scored dimensions, after independence, were confidence and willingness to take risks, both of which, as factors F7 and F2, also showed a significant difference over the mobility period when measured in the attitude section using a Likert scale. This would seem to suggest that there is indeed a change that occurs in students' confidence and risk taking ability due to their time abroad – students recognise a change and this is statistically verified. However, while students scored 'risk taking' highly as a personality trait that had changed, the statistical analysis shows that positive attitude to risk taking has decreased.

7. Factors F2 willingness to take risks and F7 self-efficacy and confidence showed changes over the time period for the SAWA group. F6 achievement (perseverance and determination) contained two (from four) items that showed a significant difference for the SAWA group, indicating that this factor could be open to change but further investigation of this factor would help to confirm this.
8. For the SAWA group, dimensions corresponding to factors F1 (innovative ability), F3 (achievement: goal setting and status aspiration), F4 (creativity) and F5 (internal locus of control) were ranked lower on the improvement scale in the mobility section of the questionnaire and also, correspondingly, showed little or no difference in the T-Test results. This would indicate that students both perceived and achieved little change in these attributes.

For research question 3:

9. The WPUK group, students who had remained in the U.K. and had worked on placement, showed no significant difference across any of the entrepreneurial attitudes between T_0 and T_1 .
10. The sample size for NSA1 makes the results for this group unreliable; nevertheless the results for this group are still included in the analysis in order to highlight any points of interest or anomalies. The NSA group shows no change in attitude over the time period in question.

For research question 4:

11. The SAWA students listed a number of reasons as to why they felt change had taken place, including being away from friends and family, being in an unfamiliar environment, facing new challenges and interacting with people from different cultures. This point is discussed in more detail in Chapter 7.

12. To sum up, using the three hypotheses the following results were obtained:

- H1: there is no statistical difference between the experimental group and the control groups at T_0 , except in F4 creativity (the SAWA students show higher levels of positive attitude to creativity)
- H2: at T_1 there are changes in the SAWA group in 2 (and possibly 3) attitudes, but no real evidence of change for the sub group SBUS
- H3: at T_1 there is no corresponding change in attitudes for any of the factors across the control groups.

In the literature review I discussed the Theory of Planned Behaviour and stated that, while the theory as a whole was not directly relevant to this research, I could use elements of this theory to support my research. The factor analysis of the statistical data gave rise to 7 entrepreneurial attitudes, one of which represented locus of control, or the extent to which someone feels that they control their own lives. This attitude is similar to the 'Perceived Behavioural Control' element of the TPB. The other entrepreneurial attitudes correspond to those described by Ajzen (1991) as 'Attitude Toward Behaviour'. I have not used 'Subjective Norm' as an element in my analysis for reasons discussed in Section 2.3.11. 'Intent' has been measured as two points in time, T_0 and T_1 across all groups and the 'Behaviour' aspect has been touched upon (through the online question about the number of students who have already set up and ran their own business). The following chapter presents the findings from the interviews, which includes discussion on the 'Behaviour' aspect of the TPB.

CHAPTER 6: INTERVIEW ANALYSIS

6.1 Introduction

The interview method was chosen in order to investigate the mobility experience, to consider why any changes in entrepreneurial attitudes had occurred due to student mobility and to gain insight into how students and graduates viewed their potential and actual entrepreneurial behaviour in light of their mobility experience. Research question 4 asks “If there is a change in the mobile student group, to what do students attribute this change (for example, what factors or events of the events have caused changes to occur)?” The student group was chosen in order to provide this insight almost immediately upon their return, so that the students could reflect upon a recent experience and consider how the experience might influence their future behaviour. Research question 5 asks “How has the mobility experience impacted upon the lives of the graduates? Do they perceive themselves to be acting entrepreneurially in their lives/careers? Do they attribute their mobility experience as defining their entrepreneurial behaviour in any way?” The graduate group was chosen in order to investigate whether entrepreneurial behaviour had resulted from the mobility experience.

The question of finding the ‘right’ timeframe in which to gather information based on reflections has already been mentioned (van Hoof and Verbeeten, 2005): too soon after mobility and the student may not have had time to assimilate any impact, too long after the experience and students’ recollections may be less reliable. But as there is no ‘correct’ time, using two groups who have undergone a very similar experience but who are reflecting upon it after different time lengths should provide some balance between the two extremes. The limited timeframe of this research meant that it was not possible to follow the same group of mobile students over a period of years to track their entrepreneurial behaviour in their careers, so the graduate group provides a snapshot of how the student group may behave in the future. The rationale for this is that there are similarities between the two groups (both had carried out mobility, both sets of participants were chosen randomly, no distinction was made based on demographics, etc.) and hence it can be argued that the graduate group is a fair representation of the student group extrapolated into the future.

According to Silverman (2006) interviews

“...do not tell us directly about people’s ‘experiences’ but instead offer indirect ‘representations’ of those experiences” (p117).

In this particular research, 'representations' can be understood to mean that what the interviewee relates is based on their experience, but it is (in both groups) a reflective account and therefore subject to their interpretation of their emotions and attitudes at a particular point in time seen from a distance, i.e. perhaps not what they actually felt but what they thought they remembered they felt at that time. In the same vein, their 'representations' are also interpreted by the interviewer (in this case by me) when transcribing and when presenting findings. No matter how careful both the interviewer and the interviewee are in attempting to reflect accurately on an experience, there is always a margin of error in interpreting data based on reflection.

With this caveat in mind, it is still necessary to provide some interpretation of the interview data. Easterby-Smith *et al.* (2008) discuss 6 different ways in which natural language data can be analysed. Of these, content analysis is most pertinent to my data. Content analysis concerns searching in the data for constructs and ideas that have been decided upon in advance. In this research, the constructs and ideas concern the attitudes towards certain entrepreneurial traits and how and why these may have changed. At the same time, certain demographic data and data regarding the actual mobility experience is collected, in order to allow for a framework of experiences and events to be built and to show that the interview sample compares with, and complements, the questionnaire sample.

6.2 The Interview process

Twelve interviews were conducted with graduates who had been in the workplace for at least two years and who had either worked or studied abroad during their undergraduate degree. The interviewees were self-appointed, in as much as they responded positively to a request for interview made through the alumni offices of universities, with no preference made by me as to who was 'eligible' for interview aside from the requirement of having undertaken a mobility experience.

Eight interviews were conducted with students who had recently returned from an international experience. Once again, the interviewees selected themselves, in as much as they had responded positively to a question in the online questionnaire re: their willingness to participate in an interview.

The graduate interviews took place in 2012 (between T_0 and T_1) and the student interviews were held early in 2013, a few months after the students' return from abroad. For both groups of participants each interview lasted between 45 – 60 minutes. Some of the questions were changed slightly for the second set of interviewees, the student group. This was firstly in light of the findings from the quantitative data (some of which had already been analysed) and secondly to allow more focussed responses based on a more recent experience. However, the same topics were covered with each interviewee in each group, but not always in the same order and often sub-questions were asked that were pertinent to the individual answers given. At the start of the interviews I gave a very brief outline about my research, but was careful not to highlight the particular areas of interest (the connection between mobility and the development of entrepreneurial skills), so as to avoid interviewees placing particular emphasis on certain questions. Each interview was recorded and notes were taken by me.

As soon as possible after the interview, I transcribed each recording. Subsequently, each transcript was read through and compared to the recording to ensure transcription accuracy. The transcripts were re-read twice, and themes and ideas highlighted and collated under each question. These were then drawn together in lists to provide comparative and overlapping answers under each question.

Appendices 2 and 3 show the list of questions asked, Appendix 4 is a sample transcript from a student interview and Appendix 5 is a sample transcript from a graduate interview. Appendix 6 gives an overview of the interviewee demographic data.

6.3 The student interviews

6.3.1 Student interviewee demographics

The degree disciplines of the 8 students included Business (4 students were studying this or a variant thereof), Geography, Music Technology, Biology and German. All of them had spent one academic year abroad; 3 had carried out work placement (in France or Germany) and 5 had studied at a foreign institution (in France, Sweden and the U.S.). All the students were aged between 21 and 23, except for one, more mature student. 7 out of the 8 spoke at least one other language and attributed an improvement in their language skills to their time abroad. The exception to this was one student who had spent his year in the U.S.

6.3.2 Student responses

What plans do they have for after graduation?

I was interested in knowing if any of the students had definite plans, in particular to set up their own business, for the immediate period after graduation. This was not the case although in the course of the interviews all the students stated that this was something they hoped to do in the future. Two of the students had plans to go on to postgraduate study, four were looking for jobs in companies and two had no definite plans.

What was their reason for going abroad?

With this question I wanted to know what had motivated the students to undertake mobility: for example was it a well-thought-through and pre-planned career move, an exciting opportunity to do something different, or a more viable alternative to undertaking work placement.

Two answers stood out here: firstly the desire to travel and spend time in a different country. Secondly (and closely related to the first reason) was the desire to do something different, to do something exciting, something inspiring and to experience a different culture. Three students specifically mentioned that they thought it would be good for their future careers (it would enhance their c.v., or that they could learn more from this experience than from doing a work placement) and two students spoke about wanting to improve their language ability. As seen in Chapter 2, none of the students expressed their reasons in terms of nuanced and particular gains (e.g. to develop particular personal skills) – they were very general in their responses.

What difficulties did they encounter?

Here I was interested in the types of difficulties that students encounter when studying and/or working abroad and, more pertinently, how students overcame these difficulties.

The main problem encountered was to do with bureaucracy, for example dealing with setting up bank accounts, the level of support offered by both the home and the host institution and finding accommodation; firstly finding out how to carry out these tasks and secondly in dealing with the different processes involved. Two students said that they had problems initially with integrating with the locals and two students who were studying had had issues with the (lack of) academic organisation at their host organisation. Missing friends and family at home was also an issue with a few students, but no-one intimated that this had been a major issue nor had it impacted on their ability to cope. The overall impression from the

students was that none of these problems was insurmountable and none of the students felt that the difficulties had detracted from their overall experience. As one student said:

“You develop mechanisms on how to cope with it.” (L)

Which aspect(s) of the experience did they most enjoy?

Immersing themselves in, and getting to experience, another culture was the most popular response to this question. This, together with meeting new people (from all over the world) and building networks of friends and contacts was mentioned by 7 of the 8 students. Other enjoyable factors included the work experience and how much they had learnt from it, developing independence and having more freedom as well as recognising the experience as unique. Words such as ‘great’, ‘fantastic’, ‘can’t sing the praises high enough’ were used to describe the experience:

“...for every individual you can get so many things out of it and it challenges your existing, possibly limited mind set.” (C)

“I think it was the independence and the freedom...And I was doing something that not many people can say that they have done...Although I enjoyed every bit of it while I was there, I think it’s the end product, that’s the bit I enjoy the most, the fact that I did it.” (F)

One student admitted that her experience had not been positive all the time, but that she could still see the benefits of the experience:

“I did (enjoy it) but there were definitely problems. I can’t say I was happy when I was over there. I’m still happy I did it. It helped me a lot, but it was difficult...Yeah, it was good, but it was a lot harder than I thought.” (L)

One student picked up on the fact that study or work abroad might not be for everyone:

“I think you do have to be a certain kind of person to do it and not get, homesick is not the right word, but to adjust completely and be part of it.” (F)

What did they learn from the experience?

This question was intended to elicit the knowledge and skills that the students felt they had obtained due to the mobility experience.

The most common response to this question was 'open-mindedness'- the ability to see the good side of a cultural difference, to adapt to it and to respect such differences. A range of other personal development issues included the ability to be alone, to be independent, to practice self-discipline, to be confident and to have gained in maturity:

"You had to do everything yourself, so you do a lot of growing up." (T)

"It does give you a lot more independence, 'cos you don't really have a choice. Although I was quite independent anyway but you had to use it....jumping in at the deep end made you." (B)

"I'm a lot more outgoing, I think. I can deal with a lot more. I am a lot more open-minded. I've always been a confident person but within my own comfort zone. So that was one aspect of it, to get me away from my comfort zone...it does chuck you straight in at the deep end and you've just got to deal with it." (V)

Learning job skills and gaining a different academic perspective and knowledge were also mentioned by some. Interestingly, one student also stated that the experience had taught him to be more calm and to brush off stress.

What do they consider to be their greatest achievement from their time abroad?

With this question I was interested in knowing, alongside what they had learnt, what the students felt that they had achieved because of their time abroad, what specific skills or knowledge they had gained that they would not have gained had they not undertaken mobility.

One student who had spent his year in the U.S. stated that his greatest achievement had been to get involved in the charitable work of the fraternity he had joined. This charity work, according to him, enabled him to develop certain entrepreneurial skills (creativity, organising events, etc.) and had helped him to build up a network of useful contacts.

Similar to the question about what they had learnt, many students focussed on personal developments as their greatest achievements. Once again, these included independence, confidence, losing their inhibitions, intercultural skills, getting on with things (such as dealing with differences and difficulties):

“I’m really proud that I was pro-active and not scared and that I managed to integrate.”
(C)

In a more tangible way, students also mentioned academic achievements (getting a ‘first’ in the year overall), business acumen and knowledge, and in two cases, being offered a job at the company where they did their work placement.

What is an entrepreneur and entrepreneurial behaviour?

With this question I wanted to gauge the level of understanding of entrepreneurship and to find out in what context the students placed entrepreneurship, if there was an understanding of entrepreneurs as ‘business-oriented’ or whether they felt that entrepreneurship was something that also occurred in other ways. I was also interested to find out if any of the students would view themselves as entrepreneurs.

Unlike the graduate group, where the majority had studied business subjects, half of this group came from disciplines other than business and therefore there were a number of answers as to what makes an entrepreneur. On the whole, the non-business students viewed entrepreneurs as setting up and running their own business, but they were not as focussed in their description of an entrepreneur as the business students (probably unsurprisingly). Across the whole group, business acumen, creativity and independence were the most cited answers, but intelligence, opportunity spotting, showing initiative and being a good communicator and networker were also mentioned. One (non-business) student described an entrepreneur as follows:

“It would be somebody who comes up with an independent business idea, sets it up, gets it going. I think you’ve got to be intelligent, clever enough to realise that your idea could be successful....you’ve got to be creative enough to come up with an idea, dedicated enough to see it through and also realistic enough to know whether it is going to work or not, because otherwise you are leading yourself down a dead end.”
(F)

Three students stated, when asked, that their description of an entrepreneur went a long way towards describing how they saw themselves; the others recognised some elements of their description in themselves.

Do any of their family own their own business?

This question was asked in order to determine firstly the background of the students re: entrepreneurship and, in line with the research reviewed in Chapter 2, to discover to what extent these particular students felt that they had been influenced in their entrepreneurial behaviour by their family.

Six of the students had parents (either mother, father or both) who ran their own businesses and one student had already ran his own business and his brother currently worked free-lance. Of the seven with the family connection only three stated that this background had helped or influenced them in their intention to set up their own business in the future. For example:

“We have a little food manufacturing company. My mum and my aunt are currently chief executives. *[Will you go into the business?]* No, I don't think so. The food economy is not in a great place and it breaks my heart to see how retailers treat little companies and how it affects my company, but I think it has given me the desire to control. Even though my mum does the marketing, she is still in control, she can still influence the company.....To be honest, even though I have applied to big companies that's always what I have wanted to do *[run her own business]*...Not because I want to control everything, but because it means something to me and I can have a big impact.” (L)

and

“I've had it *[running his own business]* in the back of my mind for a while, because my father has his own business as well, so it's something I've been brought up around, self-employment and all that.” (D)

This low number of students recognising or acknowledging the connection is surprising as the literature would suggest that there is a connection – perhaps it is there but students do not see this as particularly noteworthy.

Have they ever considered setting up their own business?

I was interested in knowing here whether setting up a business was an intention for this group and, if yes, whether their mobility experience had influenced their thinking. Every one of this group of students intend to set up their own business at some point in the future.

As stated above, D has thought about setting up his own business for a while, even before study abroad. His time in France allowed him to spot opportunities for business ideas:

“And then when I went to France I started to see differences between what they had and what we had...so I’d be brainstorming to myself about what I could actually do.”

The others asserted a desire for starting and running their own business, although the timescale for doing this varied: some plan to do this in the short-term, after gaining more experience in the workplace and others see it as a longer-term plan. One student said that, while she was clear about her desire to run her own business she realised that in her field (consultancy in a particular area of the defence industry) experience and age counted for a great deal and therefore her plan was to set up on her own many years down the line. Another student recognised the financial burden of setting up on his own as a particular barrier:

“Just jumping into something now wouldn’t be very sustainable. Maybe that’s where people will make money but I’d rather wait. Because if it failed other people would have to bail me out based on a bad decision from me and I’d be accountable.” (B)

At this point in the interviews none of the students attributed their desire to set up their own business to be a direct result of their time spent abroad, but there was some reflection on the part of most of them about the impact that their experience had had on their future plans. For example, D accepted that it had helped him develop some business ideas and W concluded that his time abroad had allowed him to see more possibilities of what he could do in the music industry. Both C and L talked about choosing to do work abroad as opposed to work placement in the U.K. because it would help towards their self-development and independence and T said that coming into contact with people abroad who had already set up on their own could have positively influenced her thinking.

Do they consider themselves to be creative or innovative?

Creativity and innovation are areas of entrepreneurial attitude under investigation in this research, hence this question. In some cases there was a short discussion between the interviewee and me to clarify what they understood to be the difference between innovation and creativity. As a direct consequence of some of the outcomes of the quantitative data, which highlighted an increase in being able to solve problems, this question was asked with a follow up question, which was: **‘Has their problem solving ability changed because of their experience?’**

All the students saw themselves as creative now, with five students stating that they had always been creative: Only one student from this group of five stated clearly that their creativity had improved, but that this would probably also have done so had she stayed in the U.K., because she was in a work environment and role that demanded creativity, whether abroad or in the U.K.

More positively, two of the five stated that their experience had given them more opportunities to be creative than they would have had in the U.K. and one was clear that his attitude towards being creative had 'relaxed' while abroad (he still claimed to be creative but that he did not get as stressed about needing to prove this to himself or to others after his time abroad).

Examples of the responses include:

"You've got to think differently when you are abroad." (B)

and

"I'm a bit more resourceful than I used to be and a bit more open to new approaches that I wouldn't normally try. So I'm a lot more creative in that respect." (D)

Answers to the question about problem solving ability threw up similar answers, although this time the answers tended to be focussed on the need to be able to think creatively and solve problems that would not have arisen in the U.K.; the need to 'think outside the box' (L) because they had been 'thrown in at the deep end' (D):

"I knew I wanted to enjoy myself, so any problems I was given I suppose I did what I could to make sure that I was still having a good time." (L)

Overall, all the interviewees felt that their ability to solve problems had improved because of the atypical circumstances in which they found themselves, but their creativity levels had not been much affected by their mobility. No interviewee commented on their innovative ability in answering this question and a connection between problem-solving and creativity was not made unless prompted by the interviewer.

Would they consider themselves to be risk-takers? (Supplementary question: Do they view undertaking mobility as a risk?)

This question also relates to one of the entrepreneurial dimensions under investigation. The answers were split between those students who had considered mobility as a risk (and who

saw themselves generally as non-risk takers) and those who had not considered it a risk. Even those who stated that they thought there was some risk attached to mobility did not seem to consider this to be too great:

“I mean it (mobility) is relatively daunting or risky compared to getting a job in Nottingham. But I mean if you are ever going to do it you get quite a lot of support to do it. I mean it’s not like I was in poverty or going to war, so I don’t think it was risky, but other people did think it was....I mean I can’t remember taking what I would consider to be a major risk, but maybe my level of risk is higher anyway. I can see why people would consider it to be a risk.” (B)

The issue of thinking through risks before acting was also raised by two of the students: one who considered himself to be more of an opportunity taker than a risk taker - a ‘balanced risk taker’ - and one who stated:

“I think I spend a lot of time thinking about risks...I think I do take them eventually if they seem worth it but I do think about them a lot.” (L)

The risk that was perceived centred round the ‘unknown’ and uncertainty of the experience:

“I guess that’s like personal risk taking because you have to go out of your comfort zone.” (C)

Tied in with the questions of risk and the unknown, I also asked about the level of tolerance of ambiguity among the students. The answers here were more focussed on the actual experience rather than on risk in general and how the students viewed the experience before they went (i.e. as risky or not). The responses to the question about whether their tolerance of ambiguity had improved due to their stay abroad were overwhelmingly affirmative, for example:

“Study abroad enhanced it and gave me more chances to prove it.” (F)

and

“I think I cope with this very well. I think the work experience increased it even more.”
(C)

One student admitted that both her tolerance and her risk taking propensity had changed through the year:

"I would say definitely [to the question of tolerance of ambiguity]. I'm more willing to take risks now because I'm not so nervous about the outcome. I know that I can do it."
(T)

To what extent do they believe that they control their own destiny?

Every one of the students responded that they believed that they had (a significant amount of) control over their lives, but only two made any direct reference to their mobility experience having had any kind of impact on this belief:

"I'm pretty much in control...if anything, that increased when you are outside your comfort zone." (B)

and

"I think you control your own destiny. I don't believe in fate so much. I think if you want something to happen it will happen. It won't happen in the way you expect it to happen, but if you work at something you can end up pretty much where you want to be and I suppose that's something I didn't really think too much about before [mobility]." (W)

The inference here is that the majority of students did not consider their ability to control how their lives developed to have been affected by their mobility experience; this is something that they have always felt.

Has their level of confidence changed and, if yes, why do they think this is the case?

Partly as a result of the findings from the quantitative data, which indicated that attitude to levels of confidence was one factor that showed a change, this question was asked to gauge whether and why the students felt that their confidence had changed because of their experience.

All except one of the eight students stated categorically that their level of confidence had improved, whether this was to do with overall self-confidence, or confidence in their ability to carry out certain tasks.

The exception to the group was one student who felt that the experience had not changed her attitude particularly, but that it had given her an opportunity to show how confident she already was:

“It’s probably stayed the same but I have more examples to show it now...I did have a certain amount of confidence to go in the first place, but now I can prove my confidence, whereas before I couldn’t.” (F)

An example of the way in which the experience had affected confidence was given:

“I’m not so dependent upon what other people think of my ideas...I am a lot more confident with who I am and doing what I think is right as opposed to what I think other people think is right.” (L)

When asked what they thought had caused these changes, the majority of students concluded that it had to do with being in a new situation and having to deal with issues by themselves that they had not come across before:

“I think it’s just because you have to step up more times out there, you haven’t got someone to fall back on all the time.” (W)

and

“Being out of your comfort zone and being able to stay confident...yes, it did improve.” (V)

The responses on confidence levels also show elements of independence and having to take the initiative.

Would they say they had more determination now?

Once again, this question arose as a result of the findings of the quantitative data, which showed a change in the attitude towards determination (in terms of what the students want to achieve).

Interestingly, two of the students felt that, while they still had plans for their future which they wanted to fulfil, the mobility experience had led to a more relaxed attitude towards their future:

“If anything, it might have gone down a little, but that’s mainly because I’ve relaxed a little bit. I understand that some things have to be quite flexible, that you can’t predict everything.” (F)

and

“It’s given me a different outlook...Usually I’d be quite controlling about things that happen [before I went...but now] I think it’s just nicer not to have to worry about every single thing. It’s a much happier life, not to have to pull the reins on absolutely everything. You might not always get the results you want but it’s an easier life.” (W)

Other answers from the students about how and why their levels of determination had changed included the idea that the year had given them a greater sense of perspective, a desire to work hard(er) in order to give themselves more opportunities and one student felt that the year had made her more determined to ‘write her future’ and to do something that really interested her. There were no specific plans mentioned, but one student did state that:

“I want to be happy. To me achievement is all relative.” (B)

Has the mobility experience impacted on their life and career plans?

Answers to this question centred on what the students hoped for in the future: the majority of responses concerned where the students wanted to work (four stated that they would definitely be happy to work abroad for some time) and what they did or did not want to do (e.g. not to work for a large company). One student felt that her experience had given her long-term benefits in terms of her career, one talked about an improvement in her general attitude to work and play (her work/life balance) and one spoke of an increase in her confidence. All of the students mentioned positive aspects of their experience that they felt would impact on their future.

Did the experience influence their entrepreneurial ability?

Unlike the preceding questions, where I had tried not to lead the students towards giving me particular answers, with this question I did want to the students to reflect specifically on the connection between their experience and their entrepreneurial plans and behaviour.

As this question relates directly to the crux of this research, I think it is relevant to list the concluding statements from the students, seven of whom were able to see some influence, either in terms of their personal development and how that would help them become entrepreneurial, with regard to their future business ideas and opportunities, or in terms of their business acumen or as a mixture of some or all of these:

“In terms of my personality I don’t think I’ve changed that much. I’d like to go back and see what I was like before I went (abroad). My attitude maybe has changed. I’m more mature.” (F)

“Definitely. I’m a lot more confident now, especially with being more resourceful. I’d be a lot more willing to take things upon myself...and I think I’ve become more forceful.” (D)

“Yes, definitely. It made me more independent and really put me to the challenge, as in would I succeed there? I’m really proud of that, the personal skills and life skills.” (C)

“Yes, I think being out there...looking at all the people and what they have achieved and that’s made me want to achieve something a lot bigger.” (V).

“Yes, I think so. Because I’ve met people in Germany who’ve set up their own businesses as well, and I’ve been working as opposed to studying, so it has given me a feel for working life, and just the thought of being my own boss is good.” (T)

“From what I saw over there ...I think it has opened me up to more possibilities of what I can do, as opposed to being stuck on one idea.” (W)

“I never thought that I would be ready after uni to do my own thing, but I always knew that was what I wanted to do. And choosing France shows my priorities in life because I am more focussed towards self-development rather than developing what a large organisation wants.” (L)

There is an acknowledgement from the majority of students of the overall positive impact that the experience has had on them and also an acknowledgement that the experience has given rise to changes in their personal (entrepreneurial) attitudes and, for some, it has impacted directly on their future plans. The changes in attitude are related to confidence, independence, motivation, etc.

6.3.3. Conclusions to student interviews

A summary of the findings from the student group interviews is listed below.

1. None of these students had clear plans for the immediate future after graduation although some were searching for jobs and two were looking to go on to postgraduate study.

2. The reasons given for undertaking mobility included a desire to do something different, experience another culture, and to improve their future career prospects. There was also acknowledgement by some of the students that this experience had improved their language ability.
3. The problems encountered were mainly to do with bureaucracy and settling into life in a different culture. No long-lasting or insurmountable difficulties were mentioned, nor had these difficulties had a detrimental effect on the overall experience.
4. In terms of what the students learnt, or felt they had achieved, a range of answers was given, but these mainly focussed on two aspects: personal development (independence, confidence, maturity, open-mindedness, intercultural skills, etc.) and/or business knowledge gained / academic skills acquired. For some of the students simply having 'done it' was an achievement in itself.
5. Over half of the group came from a small business background but only a minority of these mentioned that their parents' entrepreneurial behaviour had an impact on their entrepreneurial intentions.
6. Everyone in this group is considering setting up their own business at some point in the future, although the timescales for this vary.
7. From the responses it is questionable how much students felt their level of creativity had increased because of mobility; however, the majority of students felt that their ability to solve problems had improved. This was due to the uncertain situations in which they found themselves and, in many cases, tackling issues for the first time and independently.
8. As regards risk-taking, some felt that they were risk-takers and others did not, but the impression from the answers is that the level of risk-taking is relative, what the students considered not to be a risk would have been a risk to non-mobile students. The responses to an increase in the level of tolerance of ambiguous situations were much clearer, for example the majority felt more able to cope better in uncertain situations because of their mobility experience.

9. All the students felt that they had a great deal of influence over their own lives and there was little evidence to suggest that this belief had been impacted upon by the mobility experience.
10. All the students felt that the mobility experience had been a positive one and that it would have a positive impact on their future in some way.
11. Seven from the eight students were able to articulate some connection between their experience and their desire to set up their own business in the future, although no-one expressed the opinion that it was the mobility experience that had led to their positive entrepreneurial intention.
12. The reasons as to why any changes occurred and why the students felt that they had developed their entrepreneurial ability (where this was the case) vary and are manifold. The most obvious reason is because the students were placed in totally new, uncertain situations and were forced to think and act for themselves, solve problems for themselves and adapt to different cultures, as well as establishing and maintaining new social relationships.
13. The implication from this group is that these changes would not have occurred (or not to the same extent) had the students not carried out work or study abroad.

Research question 4 asks “If there is a change in the mobile student group, to what do students attribute this change (for example, what factors or events of the experience have caused changes to occur)?” In light of the above conclusions, it would appear that the majority of students do perceive a change in themselves due to the experience and that this change has arisen because of the unknown and unusual environments in which they were placed, i.e. much of this change would not have occurred without the mobility experience. While not explicitly stated by them, many of the changes that the students acknowledge are consistent with those that contribute to entrepreneurial intent and behaviour.

6.4 The Graduate interviews

6.4.1 Graduate interviewee demographics

All 12 graduates had completed degrees in business or economics, except for one who had completed a law degree (from the Faculty of Business and Law at Kingston University) and one who had completed a degree in Geography and Management (at Loughborough University). The average age of the graduates was 26 (ranging from 23 to 31), they had all spent one academic year abroad: five in France, four in Spain, one in the Netherlands and two in the U.S.A. Five had carried out work placements, six had studied at a partner university and one had spent six months working and six months studying. Ten of the graduates had been in the workplace for at least two years, one was undertaking post-doctoral work at a university in the U.S.A. and one was currently taking time out to travel after having been employed for 18 months.

Three of the graduates had achieved a first class degree, eight an upper second and one a lower second. All of the graduates were able to speak at least one other foreign language and the majority of them (ten) claimed that this language ability had been strengthened by their year abroad.

6.4.2 Graduate responses

What was their reason for going abroad?

As with the student interviews I was interested in knowing what had motivated the graduates to undertake mobility. A variety of reasons were given for the decision to go abroad, ranging from wanting to learn or improve a language, wanting to experience a different culture, a love of travel, to not wanting to undertake a U.K. based work placement. One graduate recognised before going that the mobility might add something to his curriculum vitae:

“I wanted to add something, it was to have that differentiator a little bit when I graduated.” (A)

One individual stated that he felt that going abroad was an intrinsic part of his degree, which was in International Business. As with the student group no-one mentioned specific personal development issues.

What difficulties did they encounter?

As with the student group most of the difficulties experienced occurred at the start of the sojourn and were to do with dealing with local bureaucracy, finding accommodation and the language barrier, or learning how to communicate and getting to know local people. Only one graduate mentioned financial problems (and explained in detail how he had overcome the lack of money by finding various forms of employment). All of them had found ways to overcome these difficulties, through persistence, through contacts or through initiative and none of the graduates appeared to consider any of the difficulties they encountered to be insurmountable or indeed particularly detrimental to their overall positive experience.

Which aspect(s) of the experience did they most enjoy?

A range of answers was given here; the most popular response being about the different groups of people that the graduates encountered (both international and local) and the lasting friendships that had been made. Other responses included progress with the language, experiencing another culture, the freedom and feeling of independence the experience gave them and two people mentioned the work experience gained and the classes that they had attended.

All the respondents were extremely enthusiastic about their time abroad. Comments included:

“I had the time of my life.” (R)

“It’s the best thing I have ever done.” (N)

“It was unbelievable.” (S)

What did they learn from the experience?

Business acumen and other transferable knowledge were mentioned by two people who had been on work experience. Other answers included confidence, assertiveness, self-sufficiency, language learning and cultural learning. One respondent stated that the experience had taught him what he didn’t want to do with his life (work for a big company). The concept of having to deal with new experiences was articulated in particular by two people:

“(It was) a great experience in dealing with people because you have to adapt.” (J)

“(I learnt) that I could be thrown into a new circumstance and that I could cope with it.”
(K)

One respondent felt that what she had learnt most was...

“...to appreciate and embrace what you have when you have it.” (S)

All the graduates were unequivocal in their enthusiasm for their period spent abroad and would (and do) recommend the experience to others.

“Absolutely. It doesn’t just give you work experience it gives you a life experience and it gives you an understanding and an appreciation of how other people work in different countries.” (R)

“Definitely. I still say it’s probably the best year of my life, the most enjoyable experience of my life.” (E)

What is an entrepreneur and entrepreneurial behaviour?

The majority of graduates had either degrees in business or economics or had worked in a business environment for some time. Therefore, some understanding of the terms ‘entrepreneur’ or ‘entrepreneurial behaviour’ should have been expected. The question was asked in order to gauge the level of understanding that the graduates had about entrepreneurship.

A long list of skills and attributes was given in response to this question: the focus being more on what an entrepreneur is rather than on what constitutes entrepreneurial behaviour. A number of specific business skills (such as business acumen, good at selling, starting a business on their own, running a successful business, implementing a business idea) were mentioned. However, the most common answers included entrepreneurs as risk-takers, entrepreneurs as creative/innovative, entrepreneurs as problem-solvers and entrepreneurs as self-driven, determined and wanting to be in control. This latter list reflects many of the changes that were reported by students in the mobility section of the questionnaire. Most of the answers tied ‘entrepreneurship’ in with setting up and running a business, but two of the graduates articulated entrepreneurship as something that can occur in other walks of life, not just in a business. For example:

"[So you can be entrepreneurial in all walks of life?] Yes, I'd say so. If you're doing something different, something creative in terms of risk, maybe setting up a charity event, in terms of your study, writing something that's different to the norm or what's been done previously." (J)

Do any of their family own their own business?

Only two graduates stated that none of their immediate family ran their own business. All the others had either parents, siblings or uncles who had owned and ran their own businesses over a number of years. How far, however, this background of small business ownership / entrepreneurship had influenced the group to set up their own business in the future is questionable, as only two respondents made direct reference to how this had impacted upon their career decisions; one stated that watching a family member recently start up and run her own business had helped the graduate to consider this as something she could do as well. The other graduate, who currently runs his own business, stated that he had been directly influenced by his father:

"I would say that my dad is probably more of an entrepreneur than me....he's done all these weird and wonderful things, which he's then passed down to us, not obviously the business, but the knowledge and the wisdom inherently and we all picked it up. My sister runs her own business, my brother's an artist but he's got a commercial angle on being an artist, he's taken a business-like approach." (R)

This lack of connection to the influence of family background is similar to that experienced with the student group.

Have they ever considered setting up their own business?

This question aimed to determine firstly how many of the group considered setting up a business as a viable option for them (now or in the future), and secondly to discover whether their determination to set up a business (if, indeed, that is what they plan) was something they have always wanted to do, whether it was influenced by their mobility, or whether this was a recent consideration, based upon their experiences since graduation.

One respondent already runs his own business and has done so since graduating. Four of them were seriously considering doing so in the short term with the others stating that now was not the right time but that this was something they may do in the future. No one ruled out the possibility entirely. Five of the respondents stated that they had always wanted to run their own business, with the remainder seeing this as a more recent consideration. These

most recent 'converts' listed the need to gain certain (business) skills before starting up to explain why they hadn't done so before; the realisation that their current role was either not satisfying or had opened their eyes to possible alternatives; and / or a lack of enjoyment in their current roles as possible reasons for their decision to consider entrepreneurship.

"I do now [think about setting up a business] and I think only because I have been at Next for 6 years and it has made me a more sound businesswoman." (P)

However, no-one directly related their decision to set up a business to the mobility experience, or stated that they came back from their time abroad with the intention to set up a business.

Do they consider themselves to be creative or innovative?

There was uncertainty in some quarters as to what was meant by 'creative' and some were unsure upon first answering the question, as their understanding of creativity was based on the idea that creativity means being either artistic and / or constantly coming up with new (business) ideas. Eight graduates answered this question in the positive. One graduate linked creativity to innovation:

"I wouldn't consider myself to be too creative...I'd call it innovation rather than creativity...it's creative application." (J)

However, upon closer discussion and probing, those who were less inclined to consider themselves creative accepted that while they were not particularly good at coming up with new business ideas they all felt that they were able to solve problems in creative ways and related their creativity back to their particular situation (i.e. coming up with new ways of doing things in the work place and / or finding innovative solutions to challenges):

"I think I'm quite astute at picking out where something could be bettered in terms of process." (U)

Four of the graduates directly related their creativity to their mobility. One claimed that the experience had 'cemented' his ability to deal with problems in later life; one said that the ability to learn and speak new languages was a sign of creativity and one stated:

"The study abroad experience influenced my need to think creatively in terms of solving day-to-day problems." (G)

Would they consider themselves to be risk-takers? Do they view undertaking mobility as a risk?

The responses to this question were very similar to those of the student group. Three different themes emerged from the answers: firstly whether the graduates thought they were (or were not) risk-takers; secondly whether their perception of what was a risk was different to that of others in their peer group (in particular, whether going abroad had been perceived by others in their environment to be a risk, regardless of whether they themselves had seen it as a risk or not); and thirdly how their attitude to taking a risk had (or had not) changed because of their mobility.

Six graduates directly stated that they did not see themselves as risk takers, with the other six more positive about their ability to take risks, two of whom describing themselves as 'calculated risk takers'. A common theme was how they perceived their mobility as not risky; only one from twelve said that they had viewed going abroad as a risk at the time and one other now considers it to have been a risk, although she did not see it as such at the time. There was an acknowledgement that while they may not have viewed mobility as a risk, others in their peer group had. For example:

"No (I'm not a risk taker). But then I suppose people would look at me and go, you are a risk taker, you risked your time, your effort, you went to Madrid. From my definition of what a risk taker is I'm not, but I am." (G)

There was some discussion about what 'risk' constitutes. As stated above, most of the respondents did not perceive going abroad as a risk, even though it was seen as a risk by some of their peer group. However, the level and type of risk they were prepared to take differed. Being 'calculated risk takers' implies a level of weighing up different risks and the consequences attached to those risks. Two of the respondents confined their level of risk taking to the impact it would have, i.e. they stated they would be happy to take risks in certain circumstances, for example when it only affected themselves, or:

"Not really [I didn't consider working abroad a risk]. But you know when you asked that question about am I a risk taker I thought instantly about money and investing in stuff and I am really risk averse when it comes to gambling or investing in something. If it comes to making decisions with my own time I am happy to take a risk." (H)

Interestingly, none of the respondents mentioned any change in their willingness to take risks as a result of their mobility. And only one respondent mentioned any change since graduating, stating that her risk averseness – and indecisiveness – had grown since she started work, attributing this to the level of responsibility and the financial commitments that she now has.

Did they set any goals for themselves upon graduation?

This question was designed to investigate how the graduates had seen their lives developing immediately after graduation and whether they had specific career or life targets that they wanted to achieve. I was particularly interested in knowing how determined the graduates were in pursuing these goals and whether the goals had changed since graduation.

Some of the graduates had had specific career goals at the time of graduation: one mentioned obtaining a training contract (to train as a lawyer), another to be a highflying businesswoman and the person who was already running his own business at the time of graduation stated that he wanted to be a millionaire by the time he was 30!

However, the majority of answers concerned more intangible, non-materialistic goals, such as ‘doing something international’ or ‘meeting more people’. Being happy was seen by many as their main goal:

“The first thing I wanted to achieve was getting something where I was happy...I still wanted to have a good social experience.” (H)

“The only goal for me was finding something that I would be happy doing.” (U)

‘Success’ and ‘ambition’ were also factors but were not related to specific outcomes:

“My academic goals are to try and publish as much as I can. [But] just to try my best, do the best I can and try and be as successful and be as satisfied as I can with the way my life is going...I want to take every opportunity that comes and do the best I can with it.” (E)

and

“I am ambitious but I don’t quantify it in terms of wanting to be a millionaire, or wanting to have a particular car.” (A)

A common theme in the answers was that many of the goals that were set upon graduation were no longer applicable or important. Achievement and goal setting were factors that could change or that were in a constant state of flux. One respondent mentioned that her goal of becoming a highflying businesswoman had changed now (after working for 6 years) and another that he was constantly setting himself new goals. Another stated:

“You never stop. And they are not goals anymore, they are benchmarks ‘cos once you get there you think I’ve done that now, right I am bored.” (R)

Once again, however, none of the respondents mentioned that their determination to achieve certain things in life, be it career-wise or personally, had been directly influenced by their time spent abroad.

To what extent do they believe that they control their own destiny?

This question was asked in order to find out how much the respondents felt they controlled their lives, i.e. to what extent they had an internal locus of control. It was asked in conjunction with a sub-question concerning the role that fate played in their lives.

The overwhelming response to the question about control was that the respondents felt that they did indeed have a large say in how their lives evolved – all twelve interviewees were positive about their ability to control their lives. Typical responses were as follows:

“I do think I am in control of my own destiny...because I am a bit of a control freak.”
(P)

“I think to a very big extent. I think if you really commit to something then you can control your own destiny very much.” (H)

“I think that everybody makes choices and I think the choices can’t always be informed...but I do think that everybody has a hand in some way in what they do.” (S)
and

“The only way you are going to get anything is by doing it yourself.” (U)

To a large extent, the answers concerning a belief in fate followed the same pattern, with the majority of respondents stating that they did not think that fate played a role in their lives or that they were not unduly influenced by fate:

“No (I don’t believe in fate). If you believe in fate you can be giving up responsibility for your own future.” (G)

“No, I think you make your own fate. I think if you just believe in fate then that might be a reason not to be motivated.” (E)

“You control your fate by the amount of effort you put into things and the amount of time you put into your future.” (N)

Only two respondents were definite about their belief in the ‘influence’ of fate in their lives. One of these two spoke of her belief in fate (or ‘Karma’) and indirectly attributed this to her Hindu upbringing, which had possibly subconsciously impacted upon her attitude to fate. No respondent commented that their belief in the ability to determine their fate or control their own destiny had been changed by their mobility experience.

Would they consider themselves to be acting entrepreneurially in their lives now?

Although only one person from this interview group had set up and currently runs his own business, when asked about current entrepreneurial behaviour nine from the twelve interviewees were able to point to certain aspects in their lives that they felt were entrepreneurial. These activities included finding ways to make extra money through providing services, being entrepreneurial in the workplace, working in fundraising for charity and constantly coming up with potential business ideas. Example responses to this question included the following:

“While I am still young I want to keep trying at different things until I’m really confident that that’s the thing I want to do.” (G)

“I suppose I have always found ways to make money. I think a lot of the time I come across as entrepreneurial in terms of the way I operate within the confines of what I do.” (H)

and

“I think I am always looking for new opportunities. I’m always looking for something new that I can do that’s going to take me out and put me in that gap...I think that’s the entrepreneurial side of me.” (S)

While the traditional view of entrepreneurship (that of setting up a business) is not much in evidence here, there are indications of entrepreneurial behaviour in other ways. However,

only three of the interviewees related their entrepreneurial behaviour now to their experiences abroad, stating that it had opened up their horizons to new opportunities and/or made them realise that they had the confidence to do what they wanted.

Has the mobility experience influenced their lives in any way?

This question gave the interviewees one final chance to reflect on the relevance that their mobility experience had on their lives to-date. The specific questions regarding entrepreneurial attitudes (to risk, control, achievement, etc.) were asked in such a way as to not influence the answers to slant towards the mobility experience. This question was a 'catch all' question, to see if the interviewees themselves could make any connection.

Only one respondent was unable to pinpoint any specific benefits that she had gained through the mobility experience, although she was very positive about her time abroad. All the others were able to mention at least one aspect of their mobility that had had a positive impact on how they led their lives. These covered (perhaps obvious) benefits such as helping to get a job through having the experience on their curriculum vitae and gaining business acumen and personal skills that could be used in the workplace, e.g.:

"Yes definitely. I definitely think that other employers have taken an interest in the fact that I have done this. It gives a different dimension. It's an additional bonus that I can talk about in respect of careers. It's additional skills that I've developed in the business and social side. That's invaluable." (S)

"It definitely helped to get a job, I got called to interviews because of the study abroad experience. You need that something different and I had that study abroad experience." (M)

The benefits arising from the 'international' aspect of mobility, such as being able to speak another language; learning about and living with different cultures; being unafraid of travelling, studying and working in other countries; and being better prepared for life and work in an international environment were also mentioned:

"The work abroad has made me better prepared for the globalised economy." (J)

"I think it has shaped my character, it has made me more outward looking, more adventurous, more globally aware." (E)

The interviewees also spoke about how the experience had developed them as people, in particular their levels of confidence and independence; their ability to deal with people from different cultures and their ability to cope with new and uncertain situations. Once again the connection to entrepreneurship was not made by many of the respondents, but some of the answers reflect the ability to act entrepreneurially partly as a result of the mobility experience.

6.4.3. Conclusions to graduate interviews

A summary of the main findings from these interviews is listed below. There are a number of similarities between this group and student group.

1. There would appear to be little evidence to suggest that this group of people had pre-determined plans about working or studying abroad before entering university. The majority of them made the decision to do this once they had already started their degree programme. Reasons for the decision included the desire to do something different, to add something to their curriculum vitae and as an alternative to other options (work placement in the U.K. or studying for three years at the home university).
2. As with the student group none of the difficulties encountered by the interviewees were considered to be insurmountable or long-lasting, nor had they detracted from an otherwise generally positive experience. Where necessary they had all found mechanisms to overcome the problems they had experienced.
3. In terms of what the graduates had learnt or felt they had achieved from their experience, the most commonly cited factors were in the field of personal development (a rise in levels of confidence and independence in particular). Specific business and academic skills were also mentioned, as were cultural awareness and language improvement, plus pride in the contacts and friendships that were made.
4. All the graduates were able to articulate an understanding of what an entrepreneur is and does – not very surprising as they have all either studied business and / or have worked in the business field for some years now.
5. The majority of the group comes from an 'entrepreneurial' background (i.e. family members own or run their own business). While some of them are particularly enthusiastic about starting their own business in the near future and the others have not ruled out this possibility at some point in their lives there is little clear indication or

acknowledgement on the part of the graduates that their 'entrepreneurial' background has influenced this thinking.

6. When asked about their levels of creativity, once again the majority felt that they were creative; but with particular reference to being able to think creatively in order to solve problems they had faced (and not necessarily in terms of being able to think of new ideas for businesses). Some recognised that this ability, particularly the element of problem-solving, had increased due to their mobility experience, as they had encountered new situations and problems while abroad that they had not dealt with before and therefore had to find fresh solutions for dealing with these problems.
7. While some of the group considered themselves to be risk averse, the majority felt that they were quite open to taking risks. Not very many viewed going abroad as having been a risk – although there was, in many cases, an admission that while they did not perceive this as a risk, many in their peer group did, an indication perhaps that mobility students have a lower perception of risk than non-mobile students.
8. None of the group felt that their willingness to take risks had been either positively or negatively affected by their mobility experience.
9. Similarly, there is little evidence to suggest that their life goals or their determination to achieve these goals had been affected by their time spent abroad.
10. Across the group there were high levels of confidence in terms of their ability to shape their destinies, a belief that they are in control of their lives.
11. While only one interviewee currently runs his own business there was a feeling with the majority of the others that there was some aspect of entrepreneurial behaviour in their lives, either through their current work or in their personal lives.
12. The mobility experience has had a positive impact across many aspects of the lives of this group. Firstly in their current careers, either through helping them to get a job in the first place (they 'stand out from the crowd' because of this), or through the (business) skills they acquired while abroad or through opening up (international) career opportunities to them. Secondly, the experience had given them an appreciation of internationalisation (for example, cultural awareness, international networks of friends, broadening their horizons). Finally, a range of personal

developments, in particular an increase in confidence, independence and open-mindedness, were attributed to their mobility.

13. Although none of the graduates made any direct reference to the possible link between the benefits that mobility had given them and a positive attitude towards entrepreneurship, some of the personal developments (and, in some cases, a slight change in attitude) gained through the experience could be argued to be relevant for future entrepreneurial behaviour. It would appear that while mobility has contributed to changes in attitudes that are suited to entrepreneurship, the graduates do not think of these changes in that context unless encouraged to do so.

Research question 5 asks “How has the mobility experience impacted on the lives of graduates? Do they perceive themselves to be acting entrepreneurially in their lives/careers? Do they attribute their mobility experience as defining their (entrepreneurial) behaviour in any way?” In light of the above conclusions from the graduate interviews the inference is that the mobility did positively impact on their lives, many of them are acting entrepreneurially, either in their careers or in other walks of life, but there is limited acknowledgement that the mobility has affected their entrepreneurial behaviour. These points are discussed in more detail in Chapter 7.

CHAPTER 7: DISCUSSION OF FINDINGS

7.1 Introduction

The previous two chapters have documented the findings from the questionnaires and from my interviews. This chapter considers these findings in more detail and discusses their relevance for my research questions.

I have used both quantitative and qualitative data in this research. The use of mixed methods was discussed in Chapter 4, including the benefits and drawbacks. One of the major benefits has to be that of triangulation (Curtis and Curtis, 2011) and/or complementarity. I have used results gleaned from a quantitative analysis to show certain phenomena and also to partly inform the qualitative methods (the interview questions). The qualitative data is also used to explain and support some of the statistical results, plus I have used semi-qualitative data from the questionnaire to further inform and verify my findings.

7.2 The contextual data

There are 5 specific sub-questions in this research, the answers to which provide an insight into the overall research topic. But these questions do not stand alone. There are data available that support these questions and that provide a more complete framework within which to place and understand the findings of this research. Thus before an in-depth discussion of the findings for the sub-questions is entered into, this contextual data is presented and briefly discussed below.

7.2.1 The demographic data

Gender and age

The gender data for the groups do not show any surprises, with a higher proportion of females than males across all groups (the Higher Education Statistics Agency (2013) gives the split in the U.K. for first degree students as 54.3% female, 45.7% male). The male/female split on the SAWA groups is as expected - the British Council report (2013b) shows that more females than males undertake mobility and therefore it is not surprising that more females than males responded. The age of the respondents is also in line with what one would expect, as the majority of these students are studying at undergraduate level in British universities, where the average age of entry is 18-19.

According to Álvarez-Herranz *et al.* (2011) the average age for male entrepreneurs to start up a business in developed economies is between 25 – 34, and for female entrepreneurs the age range is between 35 – 44. The relative youth of the sample population plus the fact that they are currently studying could go some way to explain why few of them have so far thought about, set up or run their own businesses: across the three groups, SAWA0, WPUK0 and NSA0, only 39 from 452 students (8.6%) stated that they had done so. The graduate group of interviewees is also young, with an average age of 26.

It is not the purpose of this research to investigate gender differences in entrepreneurial intent or behaviour and the literature surrounding this topic has not been reviewed. In 2009 only 29% of the self-employed population in the U.K. was female (Institute for Small Business and Entrepreneurship, 2013) – a clear indication that entrepreneurship is male-dominated and gender does play a role. However, other than to acknowledge the fact that more SAWA females than males answered the questionnaire (and statistically, fewer of these females are likely to set up a business) and to acknowledge therefore that gender could play a role in entrepreneurial intent and behaviour, this factor is not considered in my discussion.

Nationality

The majority of respondents to the questionnaire were British (over 70% in all three main groups) and all of the graduate interviewees and the majority of the student interviewees were British citizens who had attended British universities. This high percentage is not surprising given that my data sets stem from British universities. What is noteworthy is that within the sub-group SBUS only 45% claimed British citizenship, meaning that 55% of students probably came from a different cultural background. I will return to the relevance of this statistic later in the discussion.

Academic discipline

Participants in both control groups and (obviously) the SBUS group were business (or related discipline) students. There was a wide variety of academic disciplines represented in the SAWA group; but in both SAWA0 and SAWA1 business disciplines and language / country studies dominated. In SAWA0 28% of students were business students and 20% were studying languages, in SAWA1 31% were language students and 20% business. Other discipline groups represented in the data sets include arts, humanities, law, medicine and sciences. In both SAWA0 and SAWA1 the least represented disciplines were those of law and medicine/nursing. These data conform to that of Carbonell (2013), which showed that language students and business students are the ones most likely to take part in mobility.

The low participation rate for law, medicine and nursing students can be accounted for by the fact that these disciplines are not easily transferrable from one country to another because of professional and national requirements for qualification and therefore less mobility takes place. The issue of academic discipline is discussed in more detail later in this chapter.

7.2.2 Entrepreneurial background and intent data

Although the literature review examined a number of factors that could play a role in either determining mobility and/or propensity to act entrepreneurially (such as economic status, ethnicity, etc.) it is problematic to find any undisputed evidence of the impact of such factors. The only element of socio-economic factor considered in this research is that of family entrepreneurship, as this is one of the factors that, on the basis of the literature review, appears to have a strong(er) correlation to, and thus could impact on, the intent for entrepreneurial behaviour. It is, therefore, directly relevant to the research. I am interested in entrepreneurial attitude changes and the subsequent impact of these changes on entrepreneurial behaviour later in life; entrepreneurial intent is not a major focus of this research but because entrepreneurial intent is a pre-cursor for entrepreneurial behaviour, and because intent is linked to both attitude and behaviour, as evidenced in the TPB, it is both interesting and relevant to pay some attention to intent within this discussion.

Fewer than 50% of respondents in the online questionnaire across the three main groups had family members who ran their own businesses, but 60% of the SBUS group confirmed that they came from such a background. Although, once again, the evidence is inconclusive the literature does suggest that such a background could have a positive influence on entrepreneurial intent and behaviour (see Blanchflower and Oswald, 2007; Kirkwood, 2007; de Wit and van Winden, 1989). It is the SBUS group who have had the highest level of entrepreneurial family 'influence' and who also show the highest level of entrepreneurial consideration at T_0 (see Figures 9, 10 and 11). From this evidence there would appear to be a connection between entrepreneurial background, mobility and entrepreneurial intent (but not necessarily entrepreneurial behaviour) for this group of students.

Ten of the twelve graduate interviewees had a degree in business and ten from the twelve had an entrepreneurial background. As seen from the interviews, only one person from this group is running his own business at the moment, but four others are currently seriously considering this as an option in the near future (and none of the individuals in this group – who are akin in many variables to the SBUS group – had ruled out the possibility of setting

up their own business in the future). Similarly, six of the student interviewees (who mainly came from the SBUS group) had an entrepreneurial background, and all eight of these students had the intention to set up their own business in the future. Therefore, in both interview groups there was a majority of individuals who had an entrepreneurial background and a majority of individuals who had entrepreneurial intent. There was, however, little open acknowledgement on the part of the interviewees of the role that this family background had had on their own entrepreneurial intentions – only a few of the interviewees related their entrepreneurial intent to the influence of the family. So while there may be a positive influence of family background on entrepreneurial intent and possibly behaviour as discussed by Scott and Twomey (1988) and others, it is not always recognised or acknowledged by the students or graduates themselves. This could be because they have never had to think about the connection and/or because, for them, their entrepreneurial background was nothing extraordinary; they had already internally and perhaps subconsciously taken the psychological step towards self-employment and viewed this as normal and hence not noteworthy.

From the questionnaire data at T_0 the question “Have you ever considered running your own business” was answered positively by 73-74% of both control groups (business students), but only 57% of SAWA (from a variety of academic disciplines) stated that they had considered this (Figure 9). However, 83% of the SBUS students (mobile business students) answered in the affirmative to this question. The positive figures for the T_1 question “How likely are you to set up your own business at some point in the future?” are much lower, with the highest percentage from the WPUK1 group at 30%, followed by the NSA1 group at 29% although this sample was extremely small (Figures 10 and 11). Once again the SAWA percentage was the lowest across all groups. Two issues arise from the percentages above – the issue of entrepreneurial intent and the issue of academic discipline. These issues are discussed below.

There is a marked difference in the level of entrepreneurial ‘consideration’ (measured at T_0) and the entrepreneurial ‘intent’ (measured at T_1). It is possible that the question at T_0 was not clear enough: perhaps students who had already considered setting up their own business but then discarded the idea still answered this question in the affirmative. It is also possible that asking students to pin down their intentions (through the use of the word ‘definitely’) caused a lower positive reaction at T_1 . It could also be that in the intervening period between T_0 and T_1 something happened to cause the change in entrepreneurial intent, which either firmed up the intention to set up a business or showed that this was not a viable option. At T_1 students have had one more year to consider their career prospects and many

may have decided that they are not yet ready to undertake the challenge of setting up on their own or simply they have decided to pursue a career in an established organisation. Finally, another possibility is that the time-span between the completion of the event and the students answering the second questionnaire was not long enough for them to recognise any impact. The rankings for both questions, however, remained almost the same: with the SBUS sub-group with high positive response percentage for both questions and the lowest positive response coming from the SAWA group, indicating that the SBUS students have maintained a high level of entrepreneurial intent across the time period. It is also worth mentioning that no one indicated in the qualitative questionnaire data that the experience had negatively impacted on their intention to set up a business.

The second issue concerns the academic discipline of the groups and their responses. The fact that it was the business students who responded more positively to entrepreneurial intent ties in with Vance *et al.*'s point (2012) about business degrees possibly facilitating entrepreneurial thinking (through building greater linear/nonlinear thinking styles) and Franco *et al.*'s findings (2010) that business (administration) students had higher levels of entrepreneurial orientation. But it is, of course, entrepreneurial behaviour and not intent that marks out entrepreneurship, and although the SAWA group score lowest at this point in time on entrepreneurial intention, that does not mean that they are less likely to set up their own business in the future, particularly those from the creative arts and design degrees (as evidenced by Tackey and Perryman, 1999). Indeed, if we consider the evidence from the graduate interviewees (who were, mostly, business graduates), they all show a level of entrepreneurial behaviour in certain aspects of their lives, but only one of the twelve graduates is running his own business currently – the type of 'entrepreneurial behaviour' that is considered and accepted as such by the mainstream business (and many in the academic) community and that is tangible and quantifiable.

In summing up the contextual framework it can be seen that the mobile sample group includes more females than males, that the age of the participants is in line with expectations, given the U.K. undergraduate profile and that very few of the students or graduates have experience of setting up and running their own business, although there is evidence of entrepreneurial intent, particularly among the business students. The majority of participants were British, but the sub-group SBUS had the highest proportion of non-British students and also the highest proportion of students with an entrepreneurial family background.

Having set out the context, we can now consider the research questions in more detail.

7.3 Research question 1

“Are there any differences between mobile and non-mobile students in their entrepreneurial attitudes before study/work abroad (at T_0)?”

The findings reveal that in six from seven entrepreneurial dimensions under investigation the experimental group and the control groups show no difference in attitude before the mobility event. The exception to this is F4 creativity, where the mobile students show a higher level of positive attitude to creativity than the two control groups.

This question was investigated using Hypothesis H1 (“There is no difference between mobile and non-mobile students in their entrepreneurial attitudes at T_0 ”) and through the use of the quantitative data. As previously stated, the intention is not to consider other aspects (personal, antecedent, etc.) that could cause one particular student to choose mobility over another student. So while it is accepted that these other aspects may be present, the focus here is on the 7 entrepreneurial attitudes and how these may change due to mobility. The starting point is that, regardless of background, socio-economic standing, etc. there will be some parity across the groups (for example similar ages across the groups, similar educational attainment). As all students across the groups can be assessed on their entrepreneurial attitude at T_0 , a comparison can be made as to whether there are any differences in attitude between the experimental group and the control groups at T_0 and the results at T_0 can be used as the baseline against which any changes in the groups at T_1 are measured.

Attitude differences

The statistical analysis of the data at T_0 (Tables 9a, 9b and 9c) showed no significant differences across the groups in attitude towards innovative ability, internal locus of control, risk-taking propensity, self-efficacy and confidence or either of the two measures for achievement.

The overall impression from the literature review is that a mobile student does differ from a non-mobile student in some aspects of personality. For example, Bakalis and Joiner (2004) looked at students who were likely to undertake, or who had already undertaken, mobility, compared to those who weren't and their results show different levels of tolerance of ambiguity and openness (including a willingness to take risk) between the two groups, with the mobile students showing higher levels in these traits; my results do not show this.

McLeod and Wainwright (2009) predicted that there would be higher levels of internal locus of control in mobile students than in non-mobile ones; once again, my results show no difference between the control group and the experimental group.

Why my results differ from those from the literature review could be down to a variety of reasons. Much of the criticism of the research already carried out centred round the narrow focus of the research, for example using students from one university, students from one academic discipline, small sample sizes and, although it is not relevant in this particular analysis of the statistical results, a lack of triangulation. I have widened the focus in this analysis, i.e. used more than one university, different academic disciplines and have used a larger sample size (certainly than that used by Bakalis and Joiner and McCleod and Wainwright) and this could have led to the difference in results, for example how mobile students differ from non-mobile students. There is also the fact that I asked about attitudes to entrepreneurial traits and not directly about the traits themselves, inferring that it is attitude that differs and not the traits themselves: attitudes change but traits do not. Nevertheless my findings suggest that in six from seven entrepreneurial attitudes the mobile and non-mobile students show no difference – a different outcome to that found in much of the literature reviewed.

The difference in creativity

The only clear difference between the groups lies in the concept of creativity, which shows a significant difference at item level and where the SAWA group have a higher mean at factor level. Two topics need to be addressed in an attempt to explain this difference: academic discipline and the nationality of the students.

Firstly with regard to academic discipline: Bennis and O'Toole (2005) and Maines and Naughton (2010) discussed the contention that higher education, and business and management programmes in particular, could stifle and discourage creativity. The SAWA0 group shows higher mean scores for creativity in comparison to the WPUK0 control group at factor level (Table 9a) and in the items with a significant difference (Table 9c), implying a greater positive attitude to creativity in the mobile students. The SAWA0 group contains both business and other academic discipline students, unlike the WPUK0 group. Therefore, while Bennis and O'Toole (and others) point could hold i.e. that business and management students are open to discouragement from starting a business it could be the non-business mobile students, who have perhaps been less 'stifled' in their creativity, who are causing the more positive results for the SAWA group.

Secondly, does nationality make a difference? The research of both Leung *et al.* (2008) and Maddux and Galinsky (2009) conclude that exposure to other cultures can enhance creativity. Although the percentage of British students is comparable between SAWA0, WPUK0 and NSA0 (all above 70%), 55% of the sub-group, SBUS0, are non-British (Figure 4), but are studying at a British university: the inference being that these particular students have already undergone exposure to another culture (through coming to the U.K. to study). Once again, perhaps it is the presence of a certain type of students (in this case the multinational SBUS0 students) within the SAWA0 group that contributes to the difference in creativity between the experimental and the control groups.

There is an issue with this conclusion. It is the SBUS0 group which has the highest percentage of non-British students. So, on the one hand this group have had a higher exposure to another culture already (and would arguably be more likely to show higher levels of creativity) and yet this group consist of 100% business students, who are less likely to show higher levels of creativity (following Bennis and O'Toole, 2005; Maines and Naughton, 2010). The ANOVA results (Table 10b) show less evidence of statistical difference between SBUS0 and WPUK0 / NSA0 for this concept (only one item, IC4, shows a difference) than there is between for SAWA0 and WPUK0 / NSA0 (where three items show a significant difference), implying that the SBUS0 and WPUK0 students do not show a significant difference in creativity and it is thus the non-business students who are contributing the creativity element.

A closer examination of the statistics for SBUS0, however, shows that in the ANOVA (Table 10b) two items (IA3 and IA4) are very close to the 0.05 value and could therefore be worthy of further investigation. These items (plus IC4) are exactly the same items that throw up differences in the SAWA0 and WPUK0/NSA0 ANOVA analysis (Table 9b), indicating a level of disparity between mobile and non-mobile students. In her research Daley (2007) contends that there are a number of intercultural competencies which are present in mobile students before they go abroad. Creativity is not on this list, but open-mindedness and flexibility are, two traits which could aid creativity. If her contention holds, then not only would the SBUS0 students possess these competencies anyway, but the whole SBUS group's 'creativity' would be further augmented by the presence of international students in the group who add to the creativity levels through already having been exposed to another culture. Perhaps these two factors – the presence of pre-existing high levels of 'open-mindedness and flexibility' plus the international nature of the SBUS group - outweigh the negative impact of being a business student.

The NSA0 figures have not been discussed at length in this section. If the above argument stands about business students being less creative, then we would expect to see significant differences in the creativity items between NSA0 and the mobility group. This is not the case. What reasons could explain this? Firstly, the sample size for the NSA0 group is much smaller than for the other groups and therefore the results might not be as reliable (although the unpaired t-test and ANOVA should account for this fact). Secondly, possibly posing differently phrased questions would show a difference. Thirdly, and interestingly, although the sample size is small, the NSA0 group did exhibit the second lowest British nationality participation rate (after SBUS0): conceivably some of this group of students had also already experienced the same 'cultural' exposure as the SBUS0 group, i.e. the results are skewed because of the multicultural make-up of this group and there is a closer similarity between this control group and the mobile group.

In conclusion, for all entrepreneurial concepts except creativity the evidence of this analysis suggests no difference between the mobile and non-mobile groups at T_0 , a finding which contradicts much of what was discussed in the literature review.

7.4 Research question 2

“Is there a change in the mobile students’ entrepreneurial attitude pre- and post-study/work abroad? Do students themselves perceive any change in their entrepreneurial personality traits as a result of mobility?”

The quantitative analysis for SAWA shows significant differences in three attitudes at T_1 : these are F2 willingness to take risks, F6 achievement (perseverance and determination) and F7 self-efficacy and confidence. Both the student group (in interviews and in the questionnaire) and the graduate group (in interviews) also put forward a number of ways in which the mobility experience had had an impact, whether on their personality traits or on their attitude to entrepreneurship.

Hypothesis H2 (“Mobile students’ entrepreneurial attitudes are different pre- and post-study/work abroad.”) can be considered using three sets of data: firstly the statistical analysis carried out across the group at T_0 and T_1 (Tables 11a, 11b, 12a and 12b); secondly, the interview data from the recently returned students; and thirdly the answers given in the questionnaire to personal change, the so-called questionnaire qualitative data. The samples

sizes in both SAWA1 and SBUS1 were noticeably lower than for SAWA0 and SBUS0, being 147 and 30 respectively. The second part of research question 2 (“Do students themselves perceive any change in their entrepreneurial personality traits as a result of mobility?”) uses data taken from questionnaire and from the interviews as the source for discussion.

As this research question uses different types of data to measure and explain the phenomenon of entrepreneurial attitude change it is worthwhile to remind ourselves of some of the issues arising from the use of mixed methods, in particular that of anomalies in results, before embarking on a discussion of the findings. Onwuegbuzie and Johnson (2006) speak of how conclusions can be drawn when findings from the various components within the mixed methods approach conflict. Oei and Zwart (1986, cited in Harris and Brown, 2010) proposed that participants could respond differently to questionnaire and interviews. They claim that face-to-face interviews trigger strong affective responses, which are based on personal experience while questionnaires permit a wide range of responses, of a more dispassionate and abstract nature.

May (2010) disentangles this complexity with her view that such (apparently) contradictory findings can co-exist, as long as they do not refute each other:

“Such conflicts are merely the outcome of the fact that social reality is complex and can at times be conflicting. With conflicts, there is no push to determine which finding is more ‘correct’ than the other: each set of findings has to be interpreted in context and as representing different viewpoints on the same issue/phenomenon” (p2).

Thus while mixed methods provide rich data sets that can be used to validate and complement each other, as May states, each data set needs to be placed in context and that they, singly or combined, contribute to our understanding of a complex environment.

Attitude differences

For the SAWA group, the statistical analysis (Table 11b) shows a change in attitude in F2 willingness to take risk, in F7 self-efficacy and confidence and, arguably, in F6 achievement (perseverance and determination). No other factors show any significant difference. The discussion deals firstly with those factors that show no change:

F1 Innovative Ability and F4 Creativity:

Innovative ability could be defined as a mixture of attributes, or at least there are a number of traits that connect with and contribute to the ability to be innovative, to be able to implement creativity. These would include confidence, flexibility, open-mindedness, problem-solving ability and creativity itself. So if 'innovative ability' is not considered, but some of the constituent or complementary traits are, then certainly in the qualitative questionnaire data students admit to positive changes in these elements. But there still remains a disconnect with the factor 'innovative ability' in the statistical data, which shows no change, and the student responses (when they are asked directly about changes in those traits that contribute to innovative ability). Looking more closely at the items that make up 'innovative ability' in the questionnaire (all the 'I' items, for example "I enjoy finding new ways to approach tasks" and "I enjoy finding unusual solutions for problems" – see Appendix 1) it is possible that all these items were unlikely to be strongly affected by an event, as students could probably already be positively inclined towards these items anyway, even before mobility. In the interviews, very few students/graduates directly referred to an improvement in their 'innovative ability' due to their mobility (this could also be because they connect 'innovation' with business and new products, services or processes and not with their personal behaviour) but they did note changes in other attitudes which could be related to innovative ability.

Similarly with creativity, there is little evidence to suggest that there is a change in attitude towards creativity, either in the statistical data or in the qualitative data. Creativity is listed by the questionnaire respondents as a trait that has improved, but not by as much as many other traits. In the interviews many of the students and graduates considered themselves to be creative anyway and the mobility had not affected this 'innate' ability and/or when probed about the mobility experience and this development, were much more likely to say that their 'problem-solving ability' had improved, rather than their creativity. There was no clear connection made by the interviewees between the ability to find new solutions (to unusual or unexpected problems) and the ability to think creatively and thus students answered this question ambivalently – the issue is perhaps one of understanding that creativity as a concept encompasses a wide range of novel approaches and is not just confined to 'coming up with a business idea' as evidenced by the students' own definition of it.

F3: Achievement (goal setting and status aspiration):

Neither of these elements of achievement was mentioned specifically in the questionnaire data, and the interviewee groups also did not place a great deal of emphasis on these attitudes. There was, on the part of many of the interviewees, the idea that they wanted to be

'happy' in what they were doing, and that the mobility had changed them in terms of their attitude to life (more relaxed, less worried about what others think, etc.) but no-one stated that the mobility had made specific changes to their status aspiration therefore the qualitative data and the statistical results are in line with each other, suggesting that mobility has had little impact on this attitude. The interview data shows that the majority of students and graduates tended to have fairly vague goals, even after mobility.

F5 Internal locus of control:

Based on the evidence from the interview data it would appear that very few of the students and graduates felt that their attitude towards how much control they had over their lives had been influenced by their mobility and this is borne out by the statistical data. The majority of the interviewees mentioned that they had always felt that their actions were under their control, i.e. that they had high levels of internal locus of control even before mobility. Once again there is concurrence among the different data results and the inference is that individuals do not recognise any impact of mobility on their ability to control their lives.

We can now consider those factors that do show change:

F2 Willingness to take risk:

The statistical results for F2 for the SAWA group (Table 11b) show that there is a difference in attitude before and after mobility (the means for this factor have decreased in 3 out of 5 of the items, implying a decrease in their willingness to take risk); the interviewees, in general, do not recognise a difference in their willingness to take risks (that was attributable to their mobility); and the questionnaire responses indicate that there is an increase in propensity to take risks (80% stated that this had improved). So the statistical data shows a decrease in willingness, the interview data suggests no real change and the qualitative questionnaire data shows a greater willingness to take risks. Why is there such discrepancy in the various data? This is a clear case of Oei and Zwart's case of different responses arising from different data sets (1986, cited in Harris and Brown, 2010).

Firstly, it is important to remember that the literature review was inconclusive with regards to what constitutes 'risk' and whether it was measurable. Athayde (2009) talks of the mixed results achieved in the past when using risk as a measurement for entrepreneurship, Robinson *et al.* (1991a) did not use risk perception as a dimension in their study and Kobia and Sikalieh (2010) discuss the lack of agreement on what risk-taking means. Bakalis and Joiner (2004) stated that risk, as a constituent part of 'openness' was more evident in mobile

than in non-mobile students and yet this did not show up in my results at T_0 – confirming that ‘risk’ is a complex and often contradictory dimension.

Rodica Luca *et al.* (2012) spoke of entrepreneurs as ‘moderate risk takers’ and Cromie (2000) argued that entrepreneurs are ‘calculated risk takers’ who assess risk carefully and take steps to minimise their own personal risk. Perhaps an explanation for the statistical difference is that the SAWA group have become more aware of risk through their experience, it has made them more aware of what constitutes risk and what it could mean for their own personal development and hence they have answered the items about risk more cautiously in the attitude section of the questionnaire.

The interviewees were mainly non-committal about the impact of mobility on their attitude towards risk. Some felt that they were not risk-takers and that the decision to undertake mobility had not been, in their eyes, a risky one (despite the inherent uncertainty that accompanies such a decision). One or two of the interviewees also mentioned that they were ‘cautious’ about taking risk anyway and that they weighed up the pros and cons of undertaking mobility before making the decision (they could be classed as ‘calculated risk-takers’) and many of the interviewees also felt that their interpretation of what was a risk was different to that of their (non-mobile) peer group, i.e. they had a more confident approach to risk-taking anyway even before the mobility so this aspect was likely to remain unchanged. Miner (1990, cited in Cromie, 2000) stated that avoiding, minimising or dispersing risk is more of an entrepreneurial trait than accepting risk and perhaps this partly explains the interviewees’ responses – and shows an entrepreneurial attitude towards risk in terms of being aware of it, cautious about undertaking it and finding ways to minimise it. Interestingly, one graduate interviewee actually admitted that she had become more risk averse since starting work, the inference being that age and experience could impact negatively on an attitude to risk (once settled in the workplace and/or having more responsibility could make one less prone to give up this ‘security’ to venture into the unknown and uncertain territory of entrepreneurship).

If it is the case that the mobility experience (and/or growing older, becoming more mature and more aware of risk and its possible consequences) could have little impact on propensity to take risk, why is it that 80% of the SAWA1 group, when asked in the questionnaire to state which personal attributes had changed because of their experience, included ‘willingness to take risk’, when the statistical analysis implies that the propensity has gone down? Perhaps when faced with a general question about willingness to take risk students are prepared to answer in the affirmative but when some constituent parts of risk

are considered (for example, 'I believe it is better to be safe than sorry' or 'I rarely put myself in a position where I risk losing something important to me') and students have to apply that question to themselves they are more wary and realistic in their answers.

It is also the case that all of the items in this factor were asked in the negative sense and were reverse scored for the purposes of my analysis and this too could have had an impact on the results. There is debate about the use of this technique. Firstly, reversing the scores on the F2 items does not automatically give the opposite answer to a statement (for example, reversing the score for item RB1R "I rarely put myself in a position where I risk losing something important to me" does not necessarily mean "I always put myself in a position....") and therefore this can create confusion, as Conrad *et al.* (2004) discussed. Secondly, in their study on social anxiety, Rodebaugh *et al.* (2007) concluded that in certain circumstances reverse-scored items show consistently weaker relationships with a variety of comparison measures. So while the use of reverse-scored items can lessen response pattern bias, their use can be problematic as the question sense is not always the opposite when it is reversed.

Interestingly, the SBUS student group showed no statistical difference in their attitude to risk at T_0 and again at T_1 (Table 12b). Clouse (1990) found that students who had undergone specific curricula designed to aid business start-up were more able to assess risk and make better decisions. If we stretch the definition of 'specific curricula' to include knowledge and understanding of the business environment in general (business students would have an understanding of what it takes to set up and run a business, even if they had not undertaken entrepreneurship courses) then we can argue that the no change in this group is attributable to their being better able to understand and thus assess, minimise or avoid risk and mobility had little impact on this ability. In the SAWA group as a whole it is the non-business students who appear to be the ones who have become more cautious about risk.

While tolerance of ambiguity was not included as a specific entrepreneurial dimension in this research (and hence there is no direct measurement of change) it is connected to risk in as much as it is about being able to cope in uncertain situations, that is to say once a decision has been made to undertake a risk, tolerance of ambiguity is a measure of how prepared and able individuals are to cope with the uncertainty inherent in any risky undertaking. Many of the interviewees felt that this particular aspect of risk had been positively impacted upon by their mobility experience: the difficulties that they had faced in new and challenging environments had made them better able to deal with ambiguity, but not necessarily more willing to take on risk. Put simply, they were able to deal with the consequences of risks, but were not prepared, or were less willing, to take these! Perhaps if I had tailored the questions

more towards tolerance of ambiguity rather than risks the statistical evidence for change would have been stronger.

To conclude this section on risk, firstly I would argue that my findings indicate that the SAWA group have, in the intervening period between T_0 and T_1 , become more aware of what 'risk' entails and its consequences. Secondly, through this greater awareness, the students are also showing an entrepreneurial attitude (as per Miner's argument), even if this implies being less likely to take a risk. Thirdly, that question phraseology and the use of reverse-scored items can impact on the outcome: students will answer a general question about their risk taking propensity positively but will be more cautious / realistic when asked about specific elements of risk. Fourthly, and finally, although there are no statistical data relating specifically to tolerance of ambiguity, the interview data suggests that mobile students and graduates may be ambivalent about risk but most are more confident in their ability to deal with uncertain situations should these arise due to their mobility experience. May's (2010) point about contradictory findings having to be interpreted in context and as representing different viewpoints on the same issue is appropriate here.

F6 Achievement (perseverance and determination):

All the items in this factor were centred on the behavioural aspect of attitude, so it was looking specifically at attitude to behaviour in terms of achievement (how achievement behaviour was affected). This could lead to unsatisfactory results, as according to Florin *et al.* (2010) attitudes are better understood when all three components are present. The factor level mean for F6 has decreased over the time period and two from four of the items showed statistical difference at T_1 compared to T_0 , (Table 11b) so it could be argued that this factor does show (some) change.

Achievement covers many facets: on the basis of the factor analysis I grouped goal setting and aspiration in one concept and perseverance and determination in another, but achievement can also cover work ethics, dominance, competitiveness, acquisitiveness (Cassidy and Lynn, 1989, cited in Sagie and Elizur, 1999), satisfaction (Delmar, 2006) and planning and information gathering (Shane, 2007). It is, therefore, a complex phenomenon.

As already mentioned, the statistical analysis shows (some) change over time for perseverance and determination. The questionnaire responses about changes to personal attributes did not elicit mentions to either perseverance or determination directly, but resilience, assertiveness and taking the initiative were all felt to have increased over the year and all, arguably, contribute to the ability to persevere and to be determined (to achieve).

The interviewees stated a number of ways in which they felt the experience had impacted upon their determination to achieve but there was little concrete discussion about WHAT they wanted to achieve and little discussion about how the experience had increased their perseverance. At the same time, a number of interviewees also stated that the experience had taught them to 'brush off stress' or to become more relaxed about issues, Perhaps this more relaxed approach has caused the slight decrease in F6 – students still have determination to achieve something but the mobility experience has induced a more realistic and calm approach. As with F3 (achievement: goal setting and aspiration) it is hard to pin down exactly what is meant by this concept, but some of the interview responses give clues as to how the year had impacted upon achievement, certainly in terms of perspective (on what was possible) and what tangible, future, opportunities were available to the interviewees.

F7 Self-efficacy and confidence:

The statistical evidence suggests a difference in this factor in two items from three and the mean of the responses has also increased, indicating that the students experienced a positive change in their attitude to confidence and self-efficacy due to the mobility experience. This statistical evidence is supported by both the questionnaire responses (86% of students noted an increase in their confidence) and by the interview data. According to the interview data this increase in confidence is very much related to the independence that the students felt they gained from the experience and the necessity of having to be pro-active in sorting out problems, in making new friends and in dealing with a new cultural environment. Koellinger (2008) contended that making decisions based on little evidence requires high levels of confidence – perhaps we can equate 'little evidence' in these circumstances with being in uncharted waters, i.e. the students' rise in confidence came from having to make decisions for themselves with little or no previous experience of living abroad.

The only item in this factor which showed no change was "I feel I know my strengths and weaknesses." An explanation for this is possibly that students were cognisant of their strengths and weaknesses before they undertook mobility, and although the experience gave them an opportunity to prove this to themselves (as related by some of the interviewees) they did not feel that mobility had changed their fundamental attitude about their strengths or weaknesses and therefore did not alter their original score for this question.

7.4.1 The SBUS group

For the SBUS group, the statistical analysis shows change in only two from the 29 items across all factors. I have already given a possible explanation for F2 willingness to take risk, but why should the SBUS group, who have all undergone a similar experience as the SAWA group, show little or no change in the remaining factors?

Firstly, we need to bear in mind that SBUS is a subgroup of SAWA and, as such, are also included in the general responses to the questions about change in attitudes and thus, according to this data set, the SBUS students do indeed acknowledge some change (for example 86% of all SAWA students noted a rise in their levels of confidence and 94% stated that the experience had changed them as a person: the SBUS group constitute approximately 20% of the SAWA group and therefore at least some of the SBUS group responded positively to these questions).

Secondly, the interviewees (mostly all business students) also responded that the experience had positively impacted upon them in various ways, including confidence and problem-solving ability, so once again evidence of change. It is only in the statistical measurements where we see no change across the factors measured. Could it be that, when asked directly about specific factors (such as confidence and problem-solving ability) in an interview situation or when asked specifically about such factors (confidence, independence, etc.) in the more open-ended questions from the questionnaires the students are able to acknowledge a change, but the attitude section asks these questions in a more indirect and convoluted way (and asks about affect, behaviour and cognition) and so the students answer in a different way? Could it also be that the questionnaire was sent directly after the mobility experience and the students had not had time to reflect too much on the impact of the experience, whereas the interviews took place somewhat later (at least for the student interviews) and they had had more time to become aware of, and reflect on, what change had occurred? These two explanations are plausible but they apply equally to the whole SAWA group – which does exhibit some change – so they are unlikely to be the cause of the lack of change in SBUS. This is an area where the data sets provide conflicting results, but we can put forward reasonable explanations as to why this is so. If we accept that participants can and do give apparently conflicting answers depending upon the research method used and that the apparently conflicting answers can co-exist within a complex social reality (as per May, 2010), this could explain the differences in the data sets provided by the SBUS group.

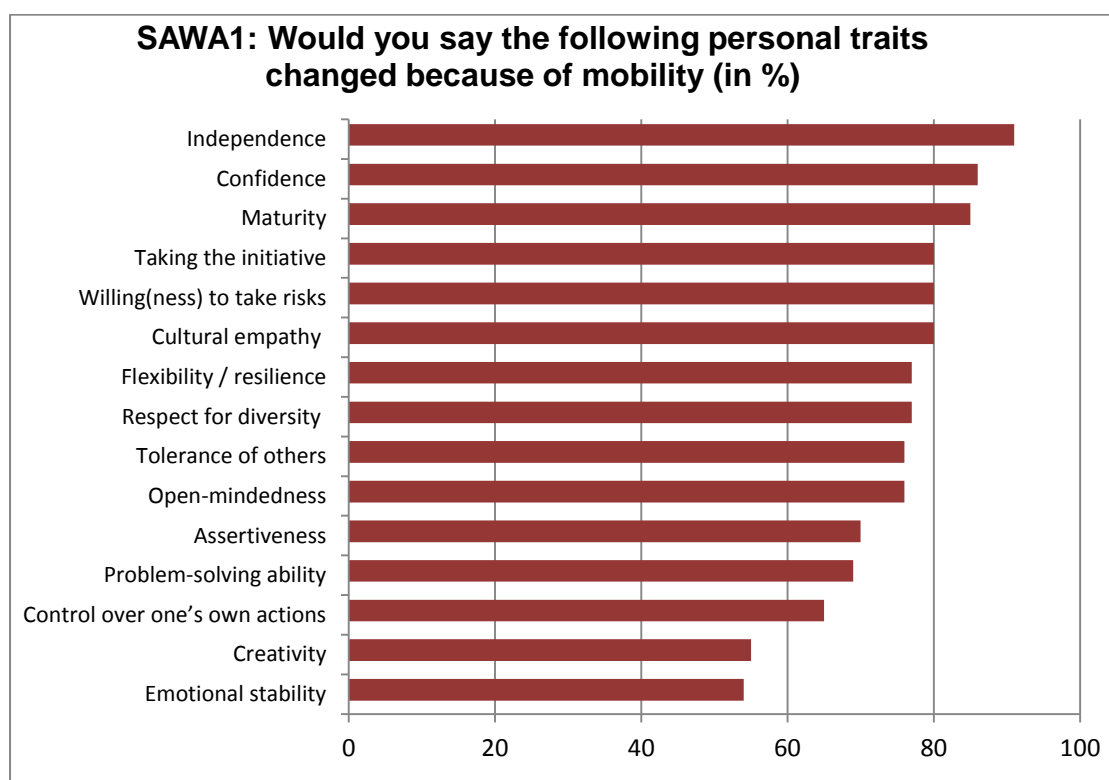
A final explanation for the lack of change in the SBUS group could be the fact that these are business students and therefore, according to Franco *et al.* (2010), are likely to have high levels of entrepreneurial orientation anyway. This is borne out by the statistical data discussed in Section 5.7, meaning that the mobility experience impacted less on their already existing entrepreneurial attitudes than it did on non-business mobile students.

7.4.2 Self-reported personality changes

To conclude this discussion on H2 (“Mobile students’ entrepreneurial attitudes are different pre- and post- study/work abroad.”) Nunan’s research (2006) discusses mobile students who, retrospectively, stated that they had high levels of tolerance for ambiguity, increased independence, higher creative and problem-solving skills due to their mobility. My findings show statistical evidence of change in students’ attitudes to risk-taking, in self-efficacy and confidence and in some aspects of achievement, with qualitative (and retrospective) confirmation of change in all of Nunan’s facets to some degree or another, thus confirming H2. As the common variable among all the participants was the mobility experience the inference is that these changes in attitude occurred as a result of this.

The second part of research question 2 asked whether students’ perceived any change in personality traits as a result of their mobility. Figure 15 is repeated here for reference as the results for this question will be used in the following discussion. To recap, this is the list of personal traits that the students stated had changed, in the qualitative questionnaire data.

Figure 15: Change in Personal Traits



The literature review argued that personality traits are stable over time (Robinson *et al.*, 1991; Ajzen, 1988) or that they are at least less 'malleable' than attitude (Ajzen, 1991). The responses to this question indicate that students do, however, perceive a change in some of the traits. Many of these traits that show perceived change are the same as those benefits that other students reported in the literature review, for example tolerance (Chieffo and Griffiths, 2004; Orahood *et al.*, 2004) independence, confidence, creativity and problem-solving (Nunan, 2006; Orahood *et al.*, 2004), flexibility, adaptability, initiative and open-mindedness (Orahood *et al.* 2004). These are, of course, self-reported changes and may or may not be actual changes in personality (which would be unlikely if we accept that personality traits are stable over time) but the fact remains that after mobility students perceive themselves to be more confident, tolerant, open-minded, etc. and regard these as benefits of their mobility period. The students in my research follow a similar line of thinking – whether or not these are actual changes is not the point: if students perceive themselves to be more confident, etc. and act on this accordingly, then this can surely be counted as a positive outcome of their experience.

7.5 Research question 3

“Is there a similar change in results for non-mobile students over the course of a year.”

The statistical data (Table 13b) shows that none of the factors show significance difference from T_0 to T_1 for the work placement students, nor for the three year degree students (Table 14b), implying that the work placement experience and continuing to study at the home university did not affect entrepreneurial attitudes in these students.

Hypothesis H3 states “There is no change in entrepreneurial attitudes for non-mobile students over the course of a year.” It is not the purpose of this research to look in detail as to why these control groups showed no change in the entrepreneurial attitudes under investigation: the control groups acts as a measuring stick against which we can evaluate whether mobility itself has an impact on students and not what impact a work placement has. Clearly, it is important to remember that there may be socio-economic factors at work that influence behaviour and that are not considered here but this fact applies equally well to the SAWA/SBUS students. Also, we have only a small amount of other data (from the entrepreneurial section in the questionnaire, and no data at all from interviews) which could help to shed light on the results. Nevertheless, it is interesting to speculate on a few possible reasons why there is no change in the entrepreneurial attitudes under investigation, primarily in the WPUK group, as the NSA group is too small at T_1 to provide useful data.

Attitude differences

Even though the percentages for the entrepreneurial intent section are low, they nonetheless show that some students perceived a change in some aspects due to their experience. So why the difference between these findings (work placement as a positive influence) and the statistical data which shows that the WPUK students did not change in attitude in the 7 entrepreneurial concepts under consideration (Table 13b)?

There are three possible answers to this question. Firstly, as with the SBUS group, the WPUK students are all business students and therefore the same argument as with the SBUS students could be applied here, i.e. the fact that business students, according to Franco *et al.* (2010), show high levels of entrepreneurial orientation even before work experience implies that the work experience is less likely to give rise to marked changes in their pre-existing entrepreneurial attitudes. Secondly, the questionnaire was completed shortly after the conclusion of the work placement and so students had not had time to fully reflect on any possible changes (at individual item level), but this argument applies equally

well to the mobile students. The third possible reason is that the work experience generally is not conducive to change in entrepreneurial attitudes: perhaps it either confirms a student's desire to work as an employee or deters students from the responsibility of running a business. However, this is pure conjecture as some students do recognise the impact of the experience on their desire to become an entrepreneur and could well act entrepreneurially in the future.

7.6 Research question 4

“If there is a change in the mobile student group, to what do students attribute this change (for example, what factors or events of the experience have caused change to occur?)”

This sub-question was answered using the interview data and the qualitative questionnaire data.

A number of reasons were cited for the decision to study or work abroad, many of which correspond to those found in the British Council report (2013b). From both the interview group and the surveyed group a number of students undertook the mobility decision once at university, it was not pre-planned, and the decision was more an opportunistic one. The main reason why students took the opportunity was to travel or to experience living abroad. This ‘opportunistic’ approach ties in with Burn’s (2007) view of entrepreneurs and can also be argued to concur with one of the Big 5 personality traits (Dimov, 2007), that of ‘openness to experience’. For those that had made a conscious and pre-planned decision to go abroad the main reason for this was to improve their career prospects, but this also could be argued to reflect an ‘openness to experience’. The reasons given, though, for mobility were general and no student was specific in their answer stating that they wanted to improve certain personality traits or attitudes.

The challenges faced by the participants were varied but in essence were to do with bureaucracy, language and communication and adjusting to cultural differences (both on a personal level and in the workplace or academic setting) combined, in some cases, with a lack of support from the host or home institution. While the interviewees were detailed in their discussion of the difficulties they had faced overall there were fewer responses to this question in the questionnaire than to other questions; and almost a third of students reported that there were ‘no real problems’ while abroad.

There are three possible reasons for the relative unimportance of the difficulties faced by the students. Firstly, perhaps that they were indeed slight or minor (although the interviewees do give some examples of where this was not the case). Secondly, the students felt able to deal with the difficulties as they arose, i.e. the students found mechanisms to cope with these (evidence of 'problem-solving ability' as discussed by Raab *et al.* (2005) and 'tolerance of ambiguity' Rodica Luca *et al.* (2012)). And thirdly, it is probably also the case that the passage of time has mitigated the impact of the difficulties, so that, on reflection, students view these problems now as minor irritants that did not overly detract from what was, on the whole, a very positive experience.

In the questionnaire 94% of students stated that the mobility experience had changed them either 'definitely' or 'somewhat'. The highest rated responses as to what had changed included 'independence', 'confidence' and 'maturity', but the list of responses closely mirrors those responses discussed by Orahoud *et al.* (2004), Nunan (2006) and others, and also mirrors those changes felt by the interviewee group. The responses mainly fit into two categories; that of 'personal development' (traits such as confidence, flexibility, open-mindedness, etc.) and that of 'career development' (the more tangible skills and knowledge acquired through working in a company abroad or by studying abroad).

With regard to what caused these changes the obvious answer is that, through the mobility, the students were placed in situations that were unknown to them. No matter how much planning, research and organisation occurred before embarking on the mobility and no matter how much support was offered to the students (for example by the home or host university or company), once abroad they were in an unfamiliar environment. As the interviewees described it, they were out of their 'comfort zone', 'thrown in at the deep end', 'having to start from scratch' and away from friends and family. In such an environment, the students were forced to find solutions to the complex issues that they faced, often by themselves or with minimum support, and to develop mechanisms for dealing with the unknown - without the same level of access to their own (long established) personal network of support that they could have used had they remained in the U.K. The consequences of this, as the interviewees themselves relate, was that they 'had no choice but to grow up', to 'step up' and to become more resourceful. Their problem-solving ability (and indirectly their creativity, although the quantitative data show little change in this aspect) as well as their tolerance of ambiguous situations and independence were certainly enhanced by this. As Papatsiba (2009) stated:

“Being mobile implies experiencing a break with routine and familiar settings, discovering and dealing with variety and also learning from this variety. Hence mobility becomes a life lesson for adaptability and flexibility. It puts the onus on the individual's activity, and assumes ability and responsibility to exercise freedom and thus choice within a new environment that provides greater scope and opportunities for self-realization” (p190).

Another cause of the changes could be through the exposure to different cultures and to the people the students met while abroad. What comes through clearly from the interviews is the (mostly positive) interaction that the students had with people from other nations and cultures. The students speak of having to adapt to cultural differences and to make new friends - to build up a support and friendship network with people from other walks of life and to integrate themselves into the cultural life of the country where they were residing and to the cultural 'quirks' of their new friendship group. The necessity to create and maintain new friendships in a culturally diverse environment will have contributed to an increase in adaptability and a need to develop (even greater) confidence. Some of the interviewees spoke of the travelling that they did while abroad and how this had given them a greater sense of independence and made them more globally aware, and, in one case, how the experience had made them challenge their own (possibly limited) pre-mobility mind set.

The exposure to new cultures is, on the surface, not directly related to entrepreneurial ability (although Leung *et al.* (2008) talk of the exposure to new culture as having an impact on creativity) but an understanding of how other cultures operate, an acceptance of such differences and an ability to integrate and build (friendship or business) networks in culturally unfamiliar environments are necessary skills in today's international business world, be that as an employee in a large organisation or as an entrepreneur. On a more practical level, two students spoke about how this contact with different cultures had indeed impacted on their entrepreneurial outlook through giving them ideas for business that would not have occurred to them in the U.K.

In terms of confidence, there was an awareness by the students that their mobility experience had afforded them opportunities to act on their own (in a proactive sense, as opposed to the more reactive sense arising from being exposed to uncertain situations and being forced to act in response) and that through this they had been able to prove to themselves and to others certain skills that they felt they already possessed but had not been able to develop or exhibit before the mobility experience; in effect the mobility gave

them the chance to improve and demonstrate their skills, particularly in relation to their confidence and coping with uncertainty (tolerance of ambiguity).

For some of the students the mobility experience caused a change in their outlook in terms of how they viewed their behaviour before mobility. For example, contact with diverse cultures and unfamiliar processes caused one student to state that she was now less dependent on what other people's view of her was and one other student declared that his attitude to life in general had become more relaxed because he had now spent a year in a country where there was a different attitude to pressure and to work/life balance.

All students, both the mobile and the control students, spent a year either working in an organisation or studying in an academic environment and therefore naturally will have matured and gained business acumen and/or academic knowledge that could have impacted upon their entrepreneurial attitudes. The experience undergone by each student, whether mobile or not, is an individual one, dependent on where they worked, what they studied, etc. so I cannot comment on whether one experience was more 'entrepreneurially oriented' than another and obviously any one of these students will use what they gained during that year in their future careers. But there is a difference in outcome from this year between the mobile and non-mobile students, with the mobile students showing changes in some entrepreneurial attitudes than the non-mobile students (specifically in their willingness to take risks, their levels of confidence and, arguably, their determination and perseverance). It can be deduced that something different occurred to the mobile students during that year to cause these changes that did not occur in the non-mobile students and that occurrence, based on these findings, was their exposure to an international setting and the consequences of having to cope with uncertainty, build new friendships and support networks and operate in a culturally unfamiliar environment .

7.7 Research question 5

“How has the mobility experience impacted on the lives of graduates? Do they perceive themselves to be acting entrepreneurially in their lives/careers? Do they attribute their mobility experience as defining their (entrepreneurial) behaviour in any way?”

The purpose of talking to the graduate group was to gain an insight into how a mobility experience has impacted on the lives of graduates (specifically in terms of entrepreneurial

behaviour) and to extrapolate from this information how current students may behave (entrepreneurially) in the future - the assumption being, as previously argued, that the current graduate group behaviour is representative of students' future behaviour. From this, we can make a case for the potential impact that a mobility experience can have on entrepreneurial behaviour.

There is no doubt in the minds of the graduates that their mobility experience was a very positive and enjoyable one. It was also a useful one, with only one of the twelve interviewees being unable to identify any specific benefits gained (although she had enjoyed the experience). Although they did not acknowledge a direct link between their time abroad, the tangible and intangible benefits they had gained and their entrepreneurial intent, many of the issues raised by the students as having resulted from their mobility could be argued to contribute to their ability to act entrepreneurially in the future. The 'lack of acknowledgement' ties in with Orahod *et al.*'s (2008) findings that students tend to recognise the impact that a mobility experience has had on personal development rather than on their career choices (although Dwyer's 2004 study of mobility benefits over a longer period of time concluded that it does have an impact on career choices, so perhaps the acknowledgement of the influence of mobility on career choices only comes after a long period of time).

The benefits include an increase in business acumen and knowledge gained through work or study abroad, although admittedly many of these skills could equally have been developed in a U.K. work placement or in a U.K. university. Language ability is a benefit that is both tangible and is usually improved through a period abroad (and most of the interviewees had needed to learn or improve another language during their time abroad and had done so successfully), as is an appreciation of life in a globalised economy (for example through exposure to different cultures and the awareness, tolerance and acceptance of such differences). More significant are those less tangible and often unquantifiable personal skills that are gained through the exposure to different cultures, often outside the workplace or lecture hall. Specifically in terms of entrepreneurial attitudes, the graduates themselves recognised an increase in their levels of confidence, independence and open-mindedness and their problem-solving ability (indirectly linked to their understanding of creativity, although this was not described as such by the graduates). There was little acknowledgement of the impact of mobility on their levels of control, risk-taking propensity or achievement (however described) but there was an acknowledgement by many of the interviewees that they had had high levels of positive attitude in these factors anyway - even before the mobility experience.

Looking particularly at the link between the mobility experience and the development of entrepreneurial behaviour a few issues are noteworthy. If we take an accepted definition of entrepreneurship within a business context such as:

“[Our definition of entrepreneurship] encompasses everyone who starts a business. Our entrepreneur is the person who perceives an opportunity and creates and organization to pursue it. And the entrepreneurial process includes all the functions, activities, and actions associated with perceiving opportunities and creating organizations to pursue them” (Bygrave and Zacharakis, 2011 p1)

i.e. being entrepreneurial means setting up and running a business, and if we use this to measure the entrepreneurial behaviour of the graduates then we would have to say that there is limited entrepreneurial activity in this group, as only one has set up and currently runs a business. There are strong indications of the potential and desire to act entrepreneurially in the sense of setting up and running a business among the graduates, but little evidence of this happening at the moment, although four out of the group were seriously considering setting up their own business in the near future.

If, however, we take a wider definition of entrepreneurship, either that of Shane (2007 p4) who states:

“Entrepreneurship is an activity that involves the discovery, evaluation, and exploitation of opportunities to introduce new goods and services, ways of organizing, markets, processes, and raw materials through organizing efforts that previously have not existed.”

or that of the U.K. Labour Government (BIS, 2009 p12) as:

“Entrepreneurship is not solely about business skills or starting new ventures; it is a way of thinking and behaving relevant to all parts of society and the economy.”

then there are more signs of entrepreneurial behaviour among the group. Nine from the twelve graduates could pinpoint some aspect of their lives, either personal or professional, that they felt was entrepreneurial. These included acting entrepreneurially in the workplace, for example coming up with new ideas, services, processes, etc. which concurs with Shane's (2007) definition. Molony *et al.* (2011) stated that certain rapidly developing industries which focussed on innovation looked for graduates with international experience because they

were better suited to the dynamic environment of such industries – and some of the graduates related how they are using their entrepreneurial thinking within larger organisations – acting intrapreneurially). Other entrepreneurial activities included working in the charity sector to find new ways of raising funding or organising services (at the moment not-for-profit) for friends and family (e.g. one graduate currently organises, runs and teaches on skiing trips for friends - something that he is looking at as a potential business area in the near future). Both of these latter examples fit with the idea of entrepreneurship not just being about setting up a business, but contributing in other ways to society and the economy.

It is, of course, certainly too early to tell whether or not the high rate of entrepreneurial intent among the other interview group, the student interviewees (and in the SBUS group as a whole) will turn into entrepreneurial behaviour. If we acknowledge that entrepreneurship is a transitory phenomenon, as discussed by Carsrud and Johnson (1989, cited in Robinson *et al.*, 1991a) and Mischel and Peake (1982, also cited in Robinson *et al.*, 1991a) we can assume that the entrepreneurial behaviour could take place not shortly after graduation but at some point in the future (none of this graduate group had been in the workplace longer than 8 years). These individuals certainly show a positive attitude towards entrepreneurship and that, as shown in the TPB, can lead to entrepreneurial intent which in turn leads to entrepreneurial behaviour. Perhaps if I had been able to interview graduates who had been in the workplace longer than my sample group I may have found more who had turned entrepreneurial intent into entrepreneurial behaviour.

To conclude this section, short answers to the questions posed in sub-question 5 are as follows.

How has the mobility experience impacted on the lives of graduates? Most of the graduates acknowledge that their mobility experience has positively impacted upon their lives in one or more of four ways: through their careers to-date, through their knowledge and understanding of the international environment, through their personal development, or through the friendships and networks they developed while abroad and which they still maintain.

Do they perceive themselves to be acting entrepreneurially in their lives/careers? Once again, most of the interviewees were able to express a certain level of entrepreneurial behaviour in their current lives, although much of this behaviour takes place within the wider definition of what constitutes entrepreneurial behaviour.

Do they attribute their mobility experience as defining their (entrepreneurial) behaviour in any way? There appears to be little recognition among the graduates of a link between their mobility experience and their entrepreneurial intent/behaviour and this conclusion concurs with the questionnaire findings in which over half of the sample said that the mobility experience had not influenced their entrepreneurial intent. However, there is an acknowledgement that the experience had benefitted them in many other ways and also an acceptance of more positive attitudes in certain traits which are normally attributed to entrepreneurship, which arose as a consequence of the mobility experience.

7.8 Summary of findings

The following chapter sets out the overall conclusions for this thesis, but a brief summary of answers to the research questions is as follows:

Research Question 1: There is no difference between the mobile and non-mobile groups in six from seven entrepreneurial attitudes before mobility. The only attitude that shows a difference is that of creativity.

Research Question 2: There is evidence that suggests that the mobility experience impacts upon some entrepreneurial attitudes and students perceive change in some of their entrepreneurial personality traits.

Research Question 3: The statistical data shows no change in entrepreneurial attitudes over the time period for the non-mobile students.

Research Question 4: Students attribute the main causes of change to the unfamiliar environment in which they found themselves, to the need to adapt to new situations and new cultures without their usual support network and to the exposure to new cultures and new friends.

Research Question 5: There is evidence of entrepreneurial intent and entrepreneurial behaviour among the graduate group. The group report changes arising from their mobility that are highly consistent with entrepreneurial behaviour, but do not appear to recognise these changes as contributing to their entrepreneurial tendencies unless encouraged to do so.

CHAPTER 8: CONCLUSIONS

8.1 Introduction

In this chapter I set out my concluding comments to the research and also examine the limitations. There are a number of areas for future research that are included in this chapter and, finally, I discuss the contribution that this research makes to the study of international education and entrepreneurship.

8.2 Conclusions

My results suggest that the mobility experience does impact on students by changing their entrepreneurial attitudes and there is also a self-reported change in a number of personality traits. The statistical results show changes in confidence and self-efficacy, determination and risk-taking propensity; the qualitative questionnaire results indicate changes in these and other traits, including independence, maturity, taking the initiative and flexibility / resilience. The statistical results show that attitude toward risk has changed in a negative sense implying that there is less propensity to take risks now: however, the other data sets do not confirm this finding and the statistical results could be explained through students' greater understanding of what 'risk' entails and an appreciation of what it takes to assess and minimise it.

The use of a mixed method approach has given rise to three sets of data: the statistical results from the questionnaire, the qualitative questionnaire responses and the qualitative data from the interviews. The three sets have been used to provide as detailed a picture as possible, i.e. the qualitative data has been used to help explain and supplement the findings from the quantitative analysis: the statistical results are stark, yes/no outcomes and it is only with the qualitative data that we can provide a more complete picture of what the results indicate.

The control groups have been used to verify that such changes occur in one particular group of students (who have undergone the mobility experience) and not in other groups (students who have not had this experience). Although my starting point for comparison between the experimental group (the mobile students) and the control groups was concentrated on only 7 particular attitudes towards entrepreneurship and I mainly ignored all other antecedent and societal factors that could cause change (as Burns (2007) inferred that such factors are

contentious and uncontrollable), my results show that at T_0 , there is little difference between the groups except that the experimental group show higher levels of positive attitude to creativity. At T_1 the experimental group shows change in some attitude whereas the statistical results for the control group indicate that such changes have not occurred in this group. Because I have narrowed my investigation to only certain entrepreneurial attitudes, which showed no difference at T_0 and because the only variable that I have used is that of mobility / non-mobility, I conclude that the study / work abroad variable does have an impact on certain (entrepreneurial) attitudes; an impact that is not felt in the control groups. The inputs for the analysis are (almost) equivalent and yet the outputs show change in one group and not in others.

It is almost impossible to separate out many of the entrepreneurial traits into clearly defined and 'stand-alone' traits and this is also the case with entrepreneurial attitudes. The literature review has shown that there is often discussion as to what constitutes an 'entrepreneurial' attitude and many of those used in this research overlap and are inter-linked; for example an internal locus of control is connected to self-efficacy and confidence, a positive risk-taking propensity also requires high levels of confidence and tolerance of ambiguity, innovative ability is tied to risk-taking and to creativity, etc. Therefore, while the statistical results can pinpoint no change in one particular attitude, there are often other entrepreneurial attitudes that are strongly connected to it that do show change. My results indicate that risk-taking propensity for the mobile students shows a negative change over the time period (inferring that the mobile students are less willing to take risk now than before mobility) and yet many of the interviewees claim to be more confident and have higher levels of tolerance of ambiguity after mobility than before – and confidence and tolerance of ambiguity play a role in how willing someone is to take a risk. Thus, the evidence would suggest that while students may be less willing to undertake a risk after mobility, this could be due to their ability to better assess risk and its consequences and that they are better able to cope with risk (through higher levels of confidence and a more pronounced tolerance of ambiguity) should they undertake it.

All of the interviewees were enthusiastic about the positive benefits that the mobility experience had on their lives and almost all were also positive about their future entrepreneurial behaviour, although there is little evidence to suggest that they saw a connection between the two. Indeed, if we use a business definition of what an entrepreneur is, only one interviewee conforms to this (having already set up his own business). However, once again, most of the interviewees recognised changes in their attitudes to certain traits that are strongly associated with entrepreneurial behaviour: Vibhakar and Smith (2004)

found that problem-solving and recognising cultural barriers were two of the top rated skills that business practitioners required for entrepreneurship and both of these were acknowledged by the interviewees to have been positively impacted on by mobility. There is also self-reported evidence of positive changes in certain entrepreneurial personality traits as a result of mobility.

Entrepreneurial behaviour is more important for an economy than entrepreneurial intent or the possession by individuals of certain personality traits or attitudes that are conducive to entrepreneurial behaviour – it is the behavioural element of the TPB which counts. My findings do not suggest that much entrepreneurial behaviour (in the sense of setting up a business) has so far occurred in mobile graduates, but what they do show is firstly, that mobility has an impact on certain entrepreneurial attitudes; secondly, that students report perceived positive changes in their personality due to mobility; thirdly, that although many respondents do not attribute this directly to their mobility experience there is evidence of entrepreneurial intent (these are particularly high in the interviewed groups); and fourthly that there is also evidence of entrepreneurial behaviour in its wider sense in the graduate group. Only a much longer study that tracked students into their careers and future entrepreneurial behaviour could categorically prove that mobility has an impact on entrepreneurship and that is not possible within the confines of this PhD: nevertheless what my findings do show is that student mobility can have an effect on the development of some entrepreneurial attitudes that could, in time, bear entrepreneurial fruit.

8.3 Limitations

I am aware that my research raises a number of questions that are not fully addressed and that there are issues surrounding some of the processes and conclusions that I have drawn that require further investigation. While I acknowledge that I will not be able to completely answer these questions or solve these issues here, this section sets out, from my perspective, some of the limitations of this work and discusses possible reasons for these limitations.

Timing of the research

Van Hoof and Verbeeten (2005) stated that it is difficult for students to assess the relevance of study abroad on their future job opportunities and on their personal development. Dwyer (2004) concluded that the impact of study abroad (on careers and personal development) can take many years to be recognised. One of the issues with much of the research into the

benefits of student mobility is that it investigates the perceived benefits shortly after the mobility takes place. My research also falls into that category – despite the use of graduates in an attempt to extrapolate these potential benefits in the future my sample group of graduates was still relatively young and had only been in the workplace a few years and, as such, were unlikely to have reached the average age for starting a business (as per Álvarez-Herranz *et al.*, 2011). Therefore, if van Hoof and Verbeeten and Dwyer are correct, my research investigated the impact of mobility on entrepreneurial behaviour too soon after the event and only a much longer study, which tracks students and their careers over a number of years, would show conclusively the connection between mobility and entrepreneurship. This is time consuming and outside the scope of a PhD, and is also research that could suffer from sample attrition.

The use of student participants and student perceptions

As discussed in Chapter 2 the use of student recollections and perceptions to provide data can lead to questions about accuracy. However, it is not easy to find an alternative way to collect information on many of the more intangible benefits of student mobility without questioning those students who have been involved upon their return – when naturally many of their responses will be retrospective. There are other outcomes of student mobility, such as employment rates, career choices, levels of salary, etc. that are quantifiable and not dependent upon student recollection, but discovering and confirming the more subtle benefits has to be done using the participants themselves, although self-perceived outcomes might not be actual outcomes.

Added to the issue above is that of interpretation, implying that the researcher (in this case me) plays a role in explaining the data. Human nature dictates that, however much a researcher tries to remain impartial and objective, there will always be a level of subjectivity in any interpretation. This applies equally to the interpretation given to the interviews, and to some of the analysis of the quantitative data (for example, I assigned concepts to the 7 factors generated from the factor analysis based on my understanding and my interpretation). The complementarity of data (the use of various data sets to support and confirm findings) is a method to minimise this issue and I have used this in my research, by using statistics to measure change and qualitative data to explain that change.

Some of the research undertaken to investigate potential entrepreneurs uses students as the test group, including this work. In their article on student subjects Robinson *et al.* (1991b) conclude that findings from research using students cannot be used to generalise:

“In conjunction with previous research findings, it seems reasonable to conclude that student entrepreneurs are not the same as nonstudent entrepreneurs. Therefore, using student entrepreneurs as surrogates for non-student entrepreneurs is a risky research practice” (p47).

I am not attempting to equate student entrepreneurs with non-student entrepreneurs, nor to use my particular research to make generalisations about entrepreneurial development in the population as a whole. Nevertheless, this is a caveat to the use of students in entrepreneurial research.

Problems with mixed methods

Onwuegbuzie and Johnson (2006) discussed some of the issues arising out of the use of mixed methods, including how to exploit the strengths of this format and how much weight to give the results of one component over another. They pose the question of what conclusions can be drawn when findings from the various components within the mixed methods approach conflict and when the sample sizes from the different data sets are mismatched (i.e. a large data set for quantitative methods and a relatively small qualitative data set). These latter two points are applicable to my research (e.g. the different results for the questions concerning risk-taking propensity). I have no solution to these issues other than to ensure that the research follows the canons of good practice and to reiterate the benefits of using complementary data sets. I also adhere to Onwuegbuzie and Johnson (2006) when they state that...

“...perhaps what is seen as contradictory are different perspectives that are complementary and enable one to more fully to see his or her world” (p54)

implying that the data sets do not produce conflicting results; rather they provide different perspectives on the complexity of entrepreneurship.

Sample groups and sample sizes

The mobility group and the control groups were chosen at random, within certain parameters, such as they were students at U.K. universities and were just about to undertake either mobility, work placement or enter their third and final year of their degree. I did not stipulate any particular degree discipline, socio-economic status or any other factor that could influence the type of person who participated in the research, but there was some degree of parity in terms of age and academic attainment. The literature is inconclusive as to which factors or variables may be influential and as a result, for this research, I am arguing that as

my research focuses on one particular aspect of human behaviour, that of entrepreneurial attitude, I can mitigate the effects of the 'confounding variables' (Dwyer 2004) by using a baseline of these attitudes as the starting point for any comparisons, the baseline being that there is no difference in entrepreneurial attitude. I have drawn on some of the demographic data in the discussion to provide background and supporting information but the main aspect is on one particular element of human behaviour and changes therein.

The student population in the U.K. consists of approximately 2.5m (Higher Education Statistics Agency 2013), approximately 20,000 of whom undertake mobility. My sample groups are very small compared to the total population. There are discussions about an 'ideal' sample size (see Bryman and Bell 2007 and Hair *et al.* 2006) but normally, the larger the sample size, the more reliable and valid the results. I have, therefore, not considered the NSA1 results in my findings other than to comment on particular points of interest.

Personality and antecedent / societal influences

The literature is inconclusive about the 'nature versus nurture' debate for entrepreneurs. I have stressed the use of 'attitude' towards entrepreneurial traits rather than the personality traits themselves for, in my judgement, solid reasons based on this uncertainty, but clearly there is a strong link between traits and attitudes. However, just because I have not used personality traits here does not mean there isn't a relationship between entrepreneurial behaviour and personality type: as Carter and Jones-Evans (2006) point out, personality remains an important predictor for entrepreneurship and students themselves acknowledge a change in personality. Similarly, I have largely ignored antecedent and societal influences even though I acknowledge that these can also influence entrepreneurial behaviour.

8.4 Further research

The conclusions from this research and the limitations described above give rise to a number of areas for future research, either because of the need to strengthen and confirm some of the findings discussed in the preceding chapters and/or because the process has highlighted a number of significant areas of interest in international student mobility and the connection to entrepreneurial behaviour. From my perspective particular areas of interest are discussed below.

One criticism of this research could be that of using student recollections shortly after their return from mobility, because the full impact of the experience is unlikely to have been

assimilated and recognised by the students in the short-term. The solution would be to consider gathering data further in the future. This could be a double-edged sword: on the one hand the longer after mobility data is collected, the more likely it is that any benefits will have been recognised and utilised by the students; yet on the other hand the further away the experience is (time-wise) the more hazy and perhaps inaccurate the student recollections may become. Similarly, one argument given in this research is that while higher education might prepare students for becoming entrepreneurs (through entrepreneurial programmes, offering practical experience, offering mobility, etc.), the effects of this can dissipate fairly quickly once students embark on a career (Greene and Saridakis 2008). The graduates (and students) that I interviewed were all still relatively young, but many of them had entrepreneurial intentions. It would be interesting to see how many of these graduates (and students) do take up the gauntlet of running their own business at some point in the future and whether there is then any clearer indication or recognition from them of the role that their mobility experience might have played in this.

While my area of interest is not that of the contribution of a work placement to entrepreneurial behaviour, the results for the WPUK group are, for me, intriguing. I would have expected development / change in at least some of the entrepreneurial dimensions under consideration due to exposure to the corporate world. As this does not appear to be the case with my sample, further research could consider why this is not the case.

In my research the attitude towards risk is one which raises particular questions. Throughout the research I discussed the contentions surrounding 'risk' (what it means, how to measure it, what emphasis should be placed on it as an entrepreneurial dimension, etc.). I have put forward arguments to explain my findings but am in agreement with the fact that it is a controversial dimension and believe that impact of mobility on the willingness of students to undertake risk (or to view it as a positive phenomenon) is an area that requires further investigation.

8.5 My Contribution

This research contributes to the existing body of knowledge in the fields of international education (in particular, student mobility) and entrepreneurship (in particular, the development of positive attitudes towards entrepreneurial behaviour) in a number of ways:

Firstly, it investigates and provides more insight into the entrepreneurial behaviour of graduates who have undertaken study or work abroad – an area that has received little attention in the literature to-date. If, as Levie and Hart (2012) suggest, 20% of the working population in the U.K. will set up their own business, mobile graduates should form part of that 20% and so it is important to know whether the international experience has, directly or indirectly, impacted on the graduates' decision to act entrepreneurially. Mora and Vila (2010) stated that the U.K. had one of the lowest entrepreneurial graduate rates in Europe and yet the importance and relevance of entrepreneurship to the U.K. economy leaves little room for doubt: the U.K. Government and U.K. HE institutions invest in entrepreneurial activities and programmes in order to provide the skills and knowledge (and the practitioners) for an entrepreneurial economy. Low graduate take-up rates of entrepreneurial opportunities means that HE institutions need to be looking at ways to increase the supply of potential entrepreneurs. This obviously includes using 'traditional' approaches, such as practice-based experience, entrepreneurship programmes or building entrepreneurship into business curricula but if, as some of my findings indicate, study or work abroad and exposure to international cultures also develop positive entrepreneurial attitudes then these activities should be encouraged and resourced at institutional and at governmental level.

Secondly, my results add to the debate about what differentiates a mobile student from a non-mobile student. Although I have largely disregarded societal and antecedent issues in my discussion my results, contrary to much of the existing literature, indicate that there is very little difference between these two individuals before mobility in terms of their entrepreneurial attitude and intent. This gives further insight (or adds further to the complexity!) of what makes an entrepreneur.

Thirdly, in Chapter 2 I stressed the need (asserted by many others) to define, recognise and quantify the benefits that international education brings, in order to be able to justify the (financial and resource) investment made by governments and the HE sector. According to van Hoof and Verbeeten (2005) much of the research in international education is based on opinion and perception: there is a growing, but still deficient, body of hard facts about the benefits of international education, such as accountable, clearly defined and achievable targets and about the costs. My research findings contribute to the body of hard facts through showing that student mobility (an important and oft-used element of international education) can develop entrepreneurial attitudes and potentially thus contribute to entrepreneurial behaviour – an accountable and achievable target.

Fourthly, and associated with the point above, I have used a mixed method approach to undertake my research. Much of the research to date has consisted of either qualitative methods or quantitative – very little uses a combination. Added to this, another criticism of the research discussed in my review was of the ‘narrow focus’ that was used (i.e. using students from one university, or from one academic discipline). My research, through using mixed methods and through widening the sampled population, provides an atypical approach to investigating international education benefits which has achieved justifiable findings.

Fifthly, and finally, international education as a research field is relatively new and much of the research that exists concentrates on the more easily quantifiable aspects of certain aspects of the field, such as numbers of participants, costs, etc. But, as McLeod and Wainwright (2009) state, there is also a need to assess and evaluate the student experience (a more nebulous concept) and to turn anecdotal indicators and suppositions about the international experience into more concrete and substantial evidence. I hope, through my research, to have contributed to the evidence concerning the ‘student experience’ of international higher education and its contribution to entrepreneurship.

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Appendix 1: Original Items used in all Questionnaires

ITEM NUMBER	ITEM
	Achievement
	<i>Cognition</i>
AC1R	I believe that meeting targets is the way to judge success
AC2	I believe that success shouldn't be measured only in monetary terms
AC3	I believe it is important to think about future possibilities
	<i>Affect</i>
AA1	I get my biggest thrills when my work is among the best there is
AA2	I feel proud when I look at the results that I have achieved in my studies
AA3	I prefer a sense of achievement over just getting a financial gain
AA4	I get a sense of accomplishment from pursuing new opportunities
	<i>Behaviour</i>
AB1	I usually deal with important matters straightaway
AB2	I make a point to do something significant and meaningful every day
AB3	I always strive to be among the best in my peer group
AB4	I set myself challenging goals
AB5	I do not dwell on things that have happened in the past
	Innovation/Creativity
	<i>Cognition</i>
IC2	I believe that when pursuing goals or objectives, the final result is far more important than following the accepted procedures
IC3	I believe that to be successful you can use practices that may seem unusual at first glance
IC4	I believe a good imagination helps you do well in life
	<i>Affect</i>
IA1	I enjoy finding new ways to approach tasks
IA2	I enjoy finding unusual solutions for problems
IA3	I get a thrill out of doing new things
IA4	I like meeting new people so that I can exchange ideas and thoughts
	<i>Behaviour</i>
IB1	I usually try to work things out for myself rather than follow instructions
IB2	I am able to work on several things at the same time
IB3	I usually take control in unstructured situations
IB4R	I rarely question the value of accepted procedures
	Control / self-efficacy
	<i>Cognition</i>
CC1	I have a lot of faith in my own abilities
CC2	I believe that the work of competent people will always be recognized
CC3	I believe that my life is determined by my own actions
	<i>Affect</i>
CA1	I feel I know my strengths and my weaknesses
CA2	I feel that I am ultimately responsible for my own success in life
CA3R	I feel like a failure if my plans don't turn out as I expect

	<i>Behaviour</i>
CB1	I create my own opportunities for myself
CB2R	I have very little success when I try to influence events around me
CB3	I usually get on with things rather than wait for everyone else
CB4	Once I start something I see it through to the end
	Risk
	<i>Cognition</i>
RC2R	I believe it is better to be safe than sorry
RC3	I believe you should take some risks in life
	<i>Affect</i>
RA1R	I prefer to be in an environment where there are few risks and I know what is expected of me
RA2	I would like a job in an environment where the rewards are high but the risks are also high
RA3R	If I felt that the chance of failure was high I would not start something
RA4	The way I see the future for me is dramatically different to the way things are now
	<i>Behaviour</i>
RB1R	I rarely put myself in a position where I risk losing something important to me
RB2	I don't mind taking chances with things that are important to me if I feel that the results warrant the risk
RB3	I am prepared to take chances with my career choices

Appendix 2: Student Interview Questionnaire

Opening: Personal details.

- Name
- Age
- University
- Degree title
- Any future career plans?

The study / work abroad experience

- Why did they choose to go abroad?
- Where they studied/worked abroad and for how long.
- Language ability. Before going. On coming back.
- Which subjects did they study abroad / who did they work for?
- What were the difficulties they experienced while abroad (how did they overcome these?)
- What did they most enjoy?
- What did they learn from the experience?
- Would they recommend the experience to others? (why?)
- Looking back, what is their greatest achievement from the mobility experience?
- How do they think this achievement came about (what 'qualities' were developed/acquired/required for this?)
- How do they think this experience will impact upon their careers and personal lives?

Entrepreneurial experience and understanding

- What do they understand under the terms 'entrepreneur' and 'entrepreneurial behaviour'?

The questionnaire

- Do they see a connection between their experience and becoming an entrepreneur?
- Do they plan to set up their own business in the future?
- How do they think that the following traits have been affected by their experience?
 - Creativity / Problem-solving ability
 - Confidence
 - Determination
 - Willingness to take risks
 - Control over their lives
 - (others where appropriate)

Wrap-up phase

- Is there any element to their career/lives that they would consider entrepreneurial?

Appendix 3: Graduate Interview Questionnaire

Opening: Personal details.

- Name
- Age
- University
- Degree title
- When did they graduate?

Career

- Career history to-date.
- What are they doing now?

The mobility experience

- Why did they choose to go abroad?
- When did they go abroad?
- Where they studied/worked abroad and for how long.
- Language ability. Before going. On coming back. Now.
- Which subjects did they study abroad?
- What were the difficulties they experienced while abroad (how did they overcome these?)
- What did they most enjoy?
- What did they learn from the experience?
- Would they recommend the experience to others? (why?)
- Looking back, what is their greatest achievement from the mobility experience?
- How do they think this achievement came about (what 'qualities' were developed/acquired/required for this?)
- How do they think this experience has impacted upon their careers and personal lives?
- Do they consider themselves to be multi-cultural? Why?

Entrepreneurial experience and understanding

- What do they understand under the terms 'entrepreneur' and 'entrepreneurial behaviour'?
- Do any of their close family own/run their own business?
- Is this something that they have considered doing in the past?
- Is it something they would consider doing in the future?

The questionnaire

- Do they consider themselves to be creative/innovative? Do they feel that the mobility experience influenced them in this? Can they cite examples?

- Do they consider themselves to be risk-takers? Do they feel that the mobility experience influenced them in this? Can they cite examples?
- What goals did they set themselves (if any) upon graduation. To what extent are they achieving these?
- To what extent do they believe they control their own destiny (locus of control)? Do they feel that the mobility experience influenced this? Can they cite examples?

Wrap-up phase

- Is there any element to their career/lives that they would consider entrepreneurial?

Appendix 4: Student Interview Transcript

Have you any plans for after graduation?

I haven't, no. I applied to some graduate schemes, but I'm looking to start up my own thing. I'm not really looking for big companies, I looking for small companies but they usually look for people right before they start, so I'm doing that this summer. **(In what field?)** Marketing and food industry. **(So you want to work in an SME to gain experience in order to set up on your own)** Yes.

Where did you do your mobility?

Study abroad in Grenoble, France. Full academic year. Business subjects.

Why did you decide to do study abroad?

I thought that it was easier to catch up on work experience than an experience abroad, especially as I am doing international business I thought it would be really useful to learn culture differences. The French, they are really, really different to Germany where I am from or England. So I thought I could learn a lot more from study abroad, 'cos I am going to work for the rest of my life after uni and you are unlikely to just decide right I'm going to live in another country for a year. So I thought that was a really good opportunity to do that.

Do you speak other languages?

I speak German and English. My French is fairly fluent. It takes me a day or two to get back into it again. I can have a conversation but I'm not perfect. **(Improved while you were abroad?)** Not as much as a I would have hoped, 'cos I tried to encourage people to speak French with me, but the French don't like it when other people don't speak their language, so they'd rather change to English, when the French isn't very good, when they hear others slaughtering their language. I tried to get them to speak French to me so I would learn better, but they didn't so I didn't improve as much as I'd hoped.

What difficulties did you encounter and how did you overcome them?

I found the culture quite hard to adjust to. The French are incredibly bureaucratic, so...**(and you're German!)** Well, the way I see it in Germany we have bureaucracy to make us more efficient, whereas in France it's just for the sake of it, they like having loads of procedures because to them it means that people have authority. You have a lot of rounds to go through, if you want to open a bank account it can take weeks and you actually have to go there every day rather than just phoning them up. And I found it really difficult. I didn't find the French very friendly to foreigners, they like to stay in their own little cliques. The lectures at uni were really disorganised. There'd be some weeks where we'd have 30 hours and other weeks where we'd have 2 hours and in the weeks where there were 30 hours we'd have 4 coursework deadlines, which you'd be told at the beginning of the week. To me, as a German who likes to work in a very structured way, that was very difficult to adapt to. Here we are used to having a timetable for the whole semester. **(Did you experience those kinds of things when you first came to the UK?)** I went to sixth form in England and that actually gave me a lot of structure, because boarding school is very structured, you get up at the same time of the day, you do your homework at the same time of the day and it really showed me how well I work under structure. I really didn't have the same problem when I

came to the UK, the UK really helped me to find how I work best. And in France that really challenged it. **(Did the difficulties lessen over time?)** Yes. They don't become less annoying, but you develop mechanisms on how to cope with it. So I really looked into what each module required you to do over the course so I'd be more prepared for when they would throw coursework at me at the start of the week and expect it to be done at the end of the week. And you could calculate a time for all the bureaucracy to take place if you needed to get something done. So they definitely lessened over time.

Did you enjoy the experience?

I did, but there were definitely problems. I can't say I was happy when I was over there. I'm still very happy that I did it. It helped me a lot, but it was difficult. **(What did you actually enjoy about it?)** I enjoyed the food, the eating culture, which is not as apparent in the UK or Germany. There's much more a family culture, they still eat together. I really liked that part of the culture. And I really liked that the French people have this way of dividing work and leisure time. Which is not the case here. If you're not stressed in the UK or Germany you're not working hard enough. But in France you'd see people just having a glass of wine over lunch time, so I really liked seeing how....the economy is doing ok, so it's great, the dividedness, 'cos I think in Germany and in the UK we're not going anywhere with this stress culture. And I enjoyed that we had lecturers from all over the world who were actually in the profession, like we were taught law by a lawyer from Boston, which was really interesting. **(The people you met?)** Yeah, I met a lot of people from all over the world, from the Czech Republic, from America, from China, pretty much all over the place and we are still in contact. Yeah, it was good, but it was a lot harder than I thought, especially because I had been on exchanges before, that I found easier, but I think that was because this time I was in a big city, and that's a lot different to the countryside, because in the countryside people help you learn the language and they are happy to help out, but if you speak English they are not having any of you trying to learn their language.

What did you learn?

To be more open-minded, so to try and take the best of a culture, even if it's an unfamiliar way for me to deal with it. For example here at uni I'd always found group coursework dreadful, because I'd never actually experienced synergy which is what everyone always talks about. But in France there was so much group coursework that synergy actually happened, because you just kept getting thrown into groups again and again, and it made me a much better group worker because you can learn how to work well with other people. I suppose the main thing was to see the good side of the difference and to adapt to it, so I could bring them maybe working more efficiently, what they may see as slightly rude, to get straight into the working, but I can take away the better relationships with people in order to then work better.

Would you say your confidence increased?

In a way yes and in a way no. I'm confident because I managed to stay there for the full nine months even though I didn't enjoy it all the times and I actually got a really good grade, even though it was completely out of my comfort zone. But at the same time, and this is more a casual thing, if you are blond you are immediately a foreigner and they look at you a certain way, which made me feel very uncomfortable. My friend and I were saying that when we get

back to England we have to make sure that we make eye contact because in France you'd try to look down and not make eye contact with strangers because then they'd like to follow you, which made me less confident, because before I would walk self-confidently through the street, but to certain men in the South of France, they'd be like, oh maybe I should follow her....

Would you recommend the experience?

Yes, but I'm trying to make people really think about the reasons why they want to do it and consider what's involved in it so....not just do it for the sake of putting it on their cv but rather because they think that it is an experience that would benefit them.

What would you say is your greatest achievement from the time abroad?

I'm just really pleased I pulled through it because I think it benefits me although it doesn't help with finding a job as much as placement experience does. It really helped me to develop my skills. **(What particular skills?)** Definitely inter-cultural skills, and generally working in teams. Knowing who is good at what and bringing everyone together at what they are good at, rather than just dividing the work equally and gaining a mediocre result. I'm a much, much better team worker than I was before. And I did well academically. I'm very pleased that...it was such a different academic setting to what I was used to, I managed to do well because I set myself the goal of not just developing the inter-cultural skills but to learn to study for the final year and I think I did that. I don't know how much is attributable to France, because I think everyone is working so much harder in their final year but I did develop a structure for work.

What impact will it have on your career?

I think in the long term it will benefit me, but right now they are mainly looking for people who have got exact experience in their field. I have been rejected by Heinz because I haven't done a placement in the FMCG industry, even though I have got experience in the marketing sector in food companies in other countries, which I would have thought is almost as good, but they didn't consider anything else about my cv. But in 5 years' time, when I have caught up on the experience, this will benefit me a lot more than having done placement. Because in 5 years, 9 months' work experience will be less, because right now they are one year ahead in working but in 5 years that won't make so much difference. There are very few experiences where you can actually live abroad and really experience the culture and you learn so much about how difficult it is to deal with other cultures and lectures. You learn here about Hofstede and you get there and you think this is so difficult. And you can't really learn that here I think. **(Have you tried any other companies?)** Umm, I've only tried the really big ones. I got through interviews with all of them and assessment centres with some of them and my feedback was always that they could tell that I was really, really passionate. But I think they thought my personality didn't really fit in, and my mum says something similar, she says I'm just not made for a big company. I'm from an SME at home which my great-grandfather founded, so I'm really into relationships and working together, so I really don't think I fit in, so I think they were right, when they said my skills were there, my passion was there, but that I wasn't necessarily assertive enough. I don't think I shout at everyone enough.

How would you define an entrepreneur?

Someone who always sees gaps in the market, improving things, how he could start a little company that better satisfies the customers, or offers them something that isn't on the market yet, as opposed to somebody who stays with the same company and is happy to do the same thing. Somebody who opportunities just jump at. Somebody who takes initiative, and has a lot of ideas and interprets them. **(Is that you?)** I think so, yeah. At the moment I just don't have the confidence to throw myself out. **(But that will come?)** Yeah, I think so.

Back to confidence....you said in the questionnaire that it had decreased.

Did I?? 'Cos just talking about entrepreneurship now, I think that I have increased my confidence. I'm not so dependent upon what other people think of my ideas. For example, I have one idea and I am considering just giving it ago after uni and I don't think I would have done before. **(So on reflection, the year in France has given you the confidence to just go and try something)**. I don't really know why this has happened but it must have. I am a lot more confident with who I am and doing what I think is right as opposed to what I think other people think is right. **(So you have noticed a difference?)** Yeah, I think so, thinking about it a bit more now.

What about your problem-solving ability?

It might have improved, I had to work with so many different people and figure out so many things....I think I didn't see all these things after I completed it but now, so many little things came up. Like my bank account. I went to the bank and said what do I have to do to close this? And they cut up my card, ripped my cheque book and said it's all done. And then later a letter arrived that my bank account was still open and if I don't reactive it they will renew my insurance. So I had to sort this from Germany and dealing with banks is not the best of things when you are there, but doing it from Germany was even harder. So there were a lot of obstacles that came up. I didn't think at the time, but I think it is probably preparing for interviews that made me realise this more now, that I have to think about solving problems. **(Mechanisms to deal with it, as you said)**. You have to think outside the box, because they require things that you've never thought of before and never needed before.

Are you creative?

I like to think so. I really enjoy writing, and coming up with new ideas and thinking those ideas through. I like things like photography and art. And I've developed business plans for companies that I have worked for, for novel concepts. I think I'm ok at finding new solutions for customers, that were not there before, but trying to make them suitable for the customers, so that they will benefit from them and they're not too 'out there'. Finding the right mix between creativity and practicality. **(Did SA help?)** I'm not sure it has for creativity. It has for problem-solving, but it's also made me, not more bureaucratic, but I had to adjust to go with the bureaucracy, so in a way it hindered while I was there but I don't think it impacted much in the long run. I changed back afterwards.

Do you take risks?

Not as many as I would like. **(Was SA a risk?)** Definitely. First of all I always knew that a lot of employers don't see this as a great thing on your cv and after final year I have to find a job.

But through doing it, it made me realise that it gives me a skill set just as good as you gain in the placement. And also, just living in a different culture. I've always known that the French are quite difficult, 'cos living in Germany next to the French border, I've been in contact with a lot of French people all my life so, so it was a risk for me, but one that was worth taking. I think I just spend a lot of time thinking about risks and thinking about the pros and cons before I take them. I think I take them eventually if they seem worth it but I do think about them a lot. **(So you are a calculated risk taker?)** Yes.

Do you think you control your own destiny?

Yes, definitely. I really think that if you work hard, you spend a lot of time figuring out what the right thing to do is and then put your heart and soul into it, it happens. I think that has the biggest impact it can possibly have, your future. **(Examples?)** Well, I have my own cookery blog and last Friday I thought it would be a nice thing to create a community competition because something that is really close to my heart is reducing food wastage, and eating local. So I haven't spent all my time on it, but when I do I really make the most of it, so I thought about it and contacted a lot of other people and now I've actually got 9 other people who joined me, who joined the community and other people are spreading it too. For me that's probably the greatest success that I have had with my blog and what I have put the most effort in so far. But before I was too scared to go out there and put a competition on my blog because I was frightened that no-one would enter, that it would be stupid. But now I thought I'd just really go for it and really promote it and just ask people and it has really paid off, and I'm really happy with it. You have to be willing to accept failure, because sometimes you will choose something that isn't meant to succeed, but I think it's important to have the ability to just move on, to maybe think about it for a day or two, to analyse why it didn't work out, what went wrong, but then to just take it as a failure and move on. I'm not saying that it works out every single time, but overall the people who work really hard are a lot more likely to climb the career ladder higher.

Are you a determined person?

Yes. **(Always been the case?)** I think I've always been quite determined and during France I just became more determined, because I just thought I'm not enjoying all of this so I at least want to show myself that I can do really, really well. I studied a lot and I think I got a 16/20 average, a lot higher than I have ever got here. I think I have become more determined to do things and it's shown me that it pays off to do so. It reinforced that being determined really can get me what I want.

What is your family background?

We have a little food manufacturing company. My mum and my aunt are currently chief executives. **(Will you go into it?)**. No, I don't think so. The food economy is not in a great place and it breaks my heart to see how retailers treat little companies and how it affects my company, but I think it has given me the desire to control. Even though my mum does the marketing, she is still in control, she can still influence the company. To be honest, even though I've applied to the (big) companies, that's always what I have wanted to do. I've always really wanted to be in control, over the company, over the direction. Not because I want to control everything, but because it means something to me and I can have a big

impact. I can't imagine being a tiny wheel in a massive organisation, where you are just there...

Is there a connection between SA and your desire to become an entrepreneur?

I think it's more the fact that I have chosen to do France shows that I have always felt this way. I never thought that I would be ready after uni to do my own thing, but I always knew that that was what I wanted to do. And choosing France shows my priorities in life because I am more focussed towards self-development rather than developing what a large organisation wants. I'm aiming to develop what I think is important for the future. I don't want to do what a large company needs, I try to develop myself, because I'd like to get the skills to make a business special in that way. That sounds arrogant...

Is your blog entrepreneurial?

A little bit. I like having something to work on other than uni, but I can't really commit to it. And obviously social media is really important so it gives me good experience in developing relationships with people who might be customers one day. I've actually got this idea of creating food plans for people that are busy and don't have the time to make lists every day. And it's really expensive to go shopping every day. And planning at the beginning of the week, which I've done at uni and my blog is mainly about recipes, so the people I am aiming it at could potentially be people I target when I launch this business. So I think it is. I think doing the assessment centres has given me more of an insight as to what it's like and I've decided that that's not my kind of thing. Before I was too scared to say that's not my type of thing because that's what everyone in the business school is supposed to become,, we're supposed to become big bankers, leaders in Nestle, that kind of thing, but I'd rather have my own success story. Through all the application process I knew that it's not really what I want to do. I really want to do my own thing. Not necessarily immediately, I think it's important to get more experience, but at some point...

Thank you.

Appendix 5: Graduate Interview Transcript

Can you tell me a little about your career history to-date?

Career history? I got a job with the Teach First programme, which is an educational charity, it's a two year graduate programme, I am currently in my second year of the programme which means I finish this year. I've qualified as a teacher last year so I have got my QTS which means I can teach and as part of the programme I am enrolled on a Masters programme at Warwick University in Leadership in Education. It's a two year programme. All funded for by Teach First and my school.

And when you finish here...?

I have been offered a job here to continue and because in my first year I also taught at another school in the area, I taught Business Studies Key Stage 5 which is A level, they've asked me also if I want to teach economics there it would be a combined role so I would do one day a week of Economics at their school and 4 days maths, BS at this school if I stay here. But I am currently looking at jobs in London, just because my family and friends live there and they are teaching roles again.

And is teaching the career you always wanted to do?

I had a year out before university where I taught English in China and I think that probably had a large influence also, that was my first experience of volunteering and teaching and that encouraged me to get the qualifications in TEFL and so I've got those qualifications and following on from that every summer I've worked at an English summer school either in Spain or in the UK following up to the summer before my final year where I became the head teacher of an English summer school in the UK and we had a BC inspection and I led them through that so for me a very demanding role at the age of 20 or something to take that on but really exciting and which I really enjoyed which encouraged me to apply for being abroad in France before that and also doing Teach First afterwards.

Do you speak other languages?

I speak French quite well, not completely fluently. I can't speak any other languages. When I was in China I learnt some Chinese but it was very much teacher instruction Chinese little bits just to get along and last summer if you're talking about career I did an internship with P+G and the reason I did that was that Teach First have lots of sponsors and one of them is P+G. I applied for a few different ones, mostly in the charity sector and one of the ones I got offered was this P+G one which was in finance and I thought I did that with my degree and I'd like to try it so I did that for 3 weeks, didn't like it which was a shame 'cos I thought ok so do I like teaching more than that or just less badly so I'm still trying to work out which way I want to go but this summer I've applied for another internship where I will do something along similar lines but I know I want to be based in London. Ultimately career-choice, career-wise I'd like to run my own business but I realise that for me that I need to get the experience of working for other people and develop those skills and contacts and also the money behind it to start your own business.

Where did you do your study abroad?

Northern France, a town called Lille. That was in 2008/09. It was for the whole academic year. 9 months teaching and 3 months holiday. I was teaching mainly but for the last 3 months I enrolled on a French course there at the university because I just felt that my conversation French was improving but I needed to do some proper study in order to improve the written French.

So you taught English?

Yes. English in three French primary schools. That was organised through the British Council, through the Erasmus programme through the Languages Department.....as a language assistant you work abroad and you have the option to do any study you choose on top of that and you are enrolled on the one year international work study abroad diploma in the Economics department. But it was assessed by, because it was in French, I wrote the essays in French that was assessed by the languages department.

Are you being slightly modest when you say you don't speak French well?

No, I'm not because it has been a while.....

I didn't do any economics (while abroad) I had the option before going to study but I thought no I will work because I thought that studying economics lessons in French would have been harder than teaching English in French so I chose it that way.

What were the difficulties you experienced while abroad (how did you overcome these?)

Initially finding somewhere to live, finding people to live with where the language barrier would make us have to learn so I found myself in the first month living with English speakers which was great fun but I've got English friends in England, so it was finding somewhere to live and finding hobbies and finding things to do, for example I used to teach one-to-one lessons but it took me a long time to work out how to organise that and at the same time I was trying to find somewhere to live, trying to find landlords and go and visit places, so after 3 months I managed to find a flat that had French people living there, moved in with them and that helped my language skills a lot more than when I was living with the English speakers. So breaking into French hobbies and French groups rather than international students.

What was your incentive for going abroad?

Firstly, initially it was I know I'm going to finish my degree, but lots of other people are going to finish their degree, what's going to be the difference between me and them? So I wanted to try and add something. I thought I can't add economics lessons in French but I could add teaching English in France because that would be my ability so it was to have that differentiator a little bit when I graduated.

And because you had already had the experience of teaching abroad (in China) you didn't feel that the hurdles of going abroad were quite so high?

Yes, I'd agree with that. The fact that when you are young you've got the freedom to do it and I thought that if I do that now they're not going to pay me much but I am at uni whereas if I do it after uni I'm going to be someone who's qualified with a degree and I won't want to work for so little salary: it's either now or I'm not going to be interested in it. And also managing all the transactions. It was very difficult to get a bank account in France, it was very difficult to understand the barriers and why we weren't getting one and it was very much a case of having to push and to make sure that you were really persistent with it. I got very involved in the French game...we used to spend half a day a week in queues because there is a lot of administration... it became a hobby because of the grants that you are entitled to, if you queued up at this one you were entitled to a housing grant...so we got involved in that...other barriers though would have been working out what the expectations were from the employers there compared to what I might have expected in England.

What did you most enjoy?

It was my first long term employment and so that experience of being given responsibility and expected to produce an outcome and being seen as an authority on what I was doing so because I was an English teacher in a school that didn't have any other English teachers. And meeting such a wide range of different groups: because I was at three schools I moved between different groups there and travelling around the country meeting with friends, just being involved with people who had open attitude to meeting new people and having these different experiences.

What did you learn from the experience?

I didn't learn to manage my money! That I really actually enjoyed being in front of a group of students and starting a lesson when they didn't know anything and then hearing them at the end of the lesson using the language we'd done and then hearing that progress. And then when I left, seeing how much it meant to them that I was no longer going to be part of their lessons and their lives.

Anything else?

The independence and the freedom to explore, try a new job, try learning a new language, try living with people you'd never lived with, trying new food, travelling, all these new experiences where I was left to do it by myself, or to fail or to get lost.

Would you recommend the experience to others?

Yes. I've had two years that I have really enjoyed. One was in china and one was in France and especially I'd recommend doing it before you finish uni because of what I said before. You come back more self-assured, you have a better realisation of what it is you like doing, so if you went over there and realised you didn't like the teaching you'd come back and know you wanted to do different jobs when you left uni or if you went over there and thought I really love living in France then maybe you'd look for a job in France or an international job.

Would you not have got the same thing if you had stayed at home?

One of the incentives for me to go there was to have a break before my final year. I found my second year quite heavy and thought (if) I go straight into my final year I might struggle to get through it all in one go so I thought a break might refresh me before coming back. It also gave me an experience of working life before I finished uni because up until you finish uni you're pretty much in education, quite likely for most students, so can you do a 9 – 5 job, can you be independent, can you organise yourself or are you just a student, so to be able to put that on my cv is, those experiences.

If you look back what was the greatest achievement from your year abroad?

I think it helped me secure my job after uni. Getting a good graduate job with a top employer. Even if that wasn't the reason I got the job it made me much more confident in the interview because I'd got that behind me...also the fact that I had almost in a way got that out of my system. I'd been abroad and now I know whether I'd want to do that again ...it was really great to have that independence in another country that experience gives you.

It gave you something extra?

Yes, it certainly gave me something extra in terms of my confidence. Whether it made a particular difference in terms of the job i don't know but I know that when I went into that interview I had something that other people might not have and that made me more confident, you had something to draw on, other experiences...And just realising that you can live and work on your own in another country. You don't need someone on the other end of the phone. It definitely refreshed me for coming back for that final year..'cos that was really heavy so yes, it was good.

Anything particular that helped develop the independence and self-assurance you mentioned?

(Getting lost). Organising our travelling, where we were going to stay, how much it's going to cost us, what tickets you need, being able to go to the ticket office and the doctor to prove that you had all the right stuff. The challenge we had in the early first two months were getting all the documentation that you needed for being a worker, even though it was a European country they wanted to know our health, our bank balance, whether we had guarantors for our rent – all these little things that you don't know before you go....and you just walk into an office and you don't know what the technical term is but after two weeks of doing it, you walk in there a lot more confidently and give them all your paperwork and hope that it all works. And having the headmaster in the school saying right this is the class you are teaching. I said to the headmaster ok so what do you want me to teach them? What's the programme and he said, you're the English teacher. Ok! (So given the independence and authority to do it). Being trusted at a young age with very limited training. And when we got broken into at our house we had to deal with the police and work out those kind of problems and deal with insurance companies in French. So it was mainly the day-to-day stuff which increased the skills and being able to adapt.

Did SA have any impact on your personal life?

Well moving to France, big change, yeah. Well yes, because to work for the charity I work for now you have to choose which region you want to work in and it's always North West, West Midlands, East Midlands, Yorkshire or London and if you work in London you work right in the sticks or in the middle of the city with the toughest kids. So I chose the East Midlands because it is near Loughborough but it meant I was very far away from my friends and family. So my career choice had an impact on my location. So for two years I have been away from where I probably would have chosen to be.

Do you consider yourself to be multi-cultural?

Multi-cultural in terms of my parents and my upbringing, no. My parents are very traditional and I'm from a very middle-class, white town. Personally, in terms of my experiences I've worked in 4 countries if you include the UK, I've taught over 10 -12 nationalities and I've worked with staff from a similar number of nationalities so in that sense I've become much more open and perhaps more understanding of how things are done differently in different ways and it doesn't necessarily mean right or wrong. This is a positive thing. Diversity is quite exciting....for the first time. I would like to live abroad and bring up children in the future but that would be a long term thing. I think for the next 5-6 years while my parents are close and around I'd like to be around them, but 5 or 6 years later I would consider living in another country and bringing up a family in a foreign country. Just because it would be less of a shock to me because I've done...I think I could do it, whereas if I hadn't done it I would perhaps be more hesitant.

4a) What do you understand under the terms 'entrepreneur' and 'entrepreneurial behaviour'?

For me an entrepreneur is someone who is self-driven, so that means even if they achieve their target, that's not enough for them they want to keep on going and exceed it or get a new target or move on from it. One of the things that attracts me to being an entrepreneur would be the fact that if you find a job you really love, you have to find something you really love because you are going to be the only person who's going to be committed enough to work crazy hours. Any sensible, sane person would give up.....so for me an entre is someone who is almost fanatical or passionate about their chosen business or career in that everything else comes second for them almost.

It's interesting that you say in their career, so is entrepreneurship for you something that doesn't necessarily have to do with setting up and running your own business but you can be entre in other walks of life?

That would hold if it was a small business and you had a large share in that small business but in other walks of life I see that more something you do when you are reaching retirement age where you are thinking, okay I've got these experiences, I'm a business man, maybe I could help run a new free school or help the local community raise money in a different way. But no, for me an entre is someone who does it on their own, starts it off on their own and risks everything so for me they have to be quite young because at the point where you have a family or got dependents I think you have your hands slightly tied in terms of the risks that you are willing to take and I think an entrepreneur has to be willing to live on the floor you

know, basically has to give up everything at some point. I don't think I could do that if I had to worry about a child.

And entrepreneurial behaviour, how would you define that?

I think it would be someone who is a problem solver rather than a problem creator. They work out how something can be done, how a problem can be solved rather than thinking that's a problem, we can't do it. So optimistic in a way. Very good at managing situations in a way, so if something arises or they need to get something done they are very good at getting their own way. For me, I think a lot of them are quite often good sales people, they know how to sell what they've got and know how to sell themselves in terms of recruiting someone. If you looked at Jobs, he was really persuasive, wasn't he...I see the distinction between entre and inventor, because an inventor can often fail, whereas an entre is quite often "right I've finally thought of a fantastic product but who cares what the product is going to be, I'm going to make this a success" and they keep on going until they get a product that is a success, whereas an inventor might have a fantastic product, but really needs that other half to connect them, whereas an entrepreneur perhaps wouldn't need the fantastic product.

Do any of your close family own/run their own business?

My granddad did before he passed away, he ran a printing business, beer mats for pubs and stuff. No, my father is a pilot, my mum is a French teacher and my sister is a lawyer so none of them do it themselves. My granddad brought the business to retirement, as he got slower he gradually decreased his business to the point where it became a smaller thing, almost a hobby really.

Have you ever considered setting up your own business?

Yes. I think I would like to do it in the next 5 years because there's always going to be something to stop you and if you wait longer than 5 years probably those things are going to get bigger. It might be by that time I'll have settled down with a family and might be...if you've both got jobs in one area it might be difficult for you both to move and to risk the financial side of it, so I think the next five years would be ... If I don't do it before then it would just get harder. In terms of a product or a service, I have thought about it and come up with little ideas but nothing that I've thought I'm going to stop tomorrow and I'm going to go with this, but I'd quite like to work with a business partner, I think it's something...I'm someone who likes reflecting ideas off someone ...is that a good idea, no, ok what's the problem, rather than I'll sit on my own for half an hour and think about it but I'd like to tell someone about it and see what they think about it. So I'd quite like to meet a business partner who had a similar drive in terms of what they want to achieve. With complementary skills or experience or something.

Do you consider yourself to be creative/innovative? Do you feel that the SA experience influenced you in this? Can you cite examples?

Creative in my day-to-day job, no...how would you separate creative and innovation. (I explain the difference)...so a bit like Dyson does. I'm creative but I like to share creative ideas. So if I think I've got a good idea or someone else has a good idea then as I said earlier I'd like to develop it with them rather than ...I'd probably quite quickly hit a dead end with where I want to go and want to see what someone else thinks of it and that would spur

me in another direction. So yes, it's a bit like I will think of something that I know what I want to do with it but I really like being able to share it with someone and being able to say what the pluses and minuses are, or say yeah, you're right I do need to completely change it or stop. So feedback in creativity there. Innovation? Two years into this type of teaching I don't think I've done anything completely novel or modified or changed anything substantially. In my own life, innovative? I tend to be innovative under pressure so if you told me that, for example, you need to apply for a job by a certain deadline but there are these hurdles, like you've got no internet, I'll be innovative in making use of what I have, doing it. I think I'm a typical male in that pressure adds that focus....

In the classroom would you say that you are a particularly creative teacher in the way you teach?

In Business Studies less so, because I feel that the course seems to be like an instruction manual for a car, it's not particularly high level thinking and it is a lot of just knowing the facts, but in maths more so, and in bringing maths outside the classroom. I run the Gifted and Talented for the maths dept. What we do is organise trips like to Bletchley Park with Humanities, so we got the kids involved in the code breaking and that was linking two departments and kids from across the school and getting them involved before they went there so they knew what Bletchley Park was about and not that it was a £2.50 trip for the whole day off school and we worked on it when they came back, finding out what they learnt about it there. I'm taking kids to Warwick uni in a couple of weeks to do a day of maths problem-solving, and we do things like the STEM days here, so in the classroom I do small bits of innovation but it really depends on the group. If you've got a group who you trust and you can give them more freedom but you quite often find that you need to be more structured in there but just before I came to see you I was doing the weekly maths challenge which is something that we put up in the maths corridor so students who are on their break or a bit bored or want to push themselves a little further. If they get it right they put in an entry to us and at the end of the week they get a certificate and a couple of lollipops, so it's more linking the outside of the classroom to the inside of the classroom for me because a lot of students will come into maths and see maths in their science lesson and say why are you teaching us that, that's for the maths classroom and then I break it down and say actually you're going to use that when you go into the supermarket to buy some clothes so those links there are more creative perhaps.

Did the SA experience influence your creativity in any way?

In terms of limited resources and limited guidance in terms of what was expected so you'd be creative in using what I had available between the three schools and also being creative in terms of solving problems in my day-to-day life, like how am I going to find somewhere to live, right I can contact these people. Am I going to trust them? Right I need to bring a friend with me, where is it, okay I need to get that bus and that train or when I had people contact me for private lessons there was like, who do we pay the tax to, and then you're on your own and trying to work out how do you pay your tax for a private lesson, how do you work the system, is it worth it for one lesson, those problems...having to do without assistance out finding out where the assistance is to help you

Do you consider yourself to be a risk-taker? Do you feel that the SA experience influenced you in this? Can you cite examples?

It was certainly risky for me to go to China before university. It was risky going to France because, I applied for it thinking ok I'll see what happens and said to my parents well I'm just applying for it because they didn't want me to go. When I found out I'd got it I found myself....thinking can I get off this track if I need to get off it and found myself writing to Economics and saying this is what I want to do and being told actually we don't do that, you can only get a three year degree, that would be a four year degree, we don't offer those. So then having to write letters and try to convince them and that was a big risk because if it went wrong it would have been very easy for them to turn round and say well that was your fault you deal with it, so yeah, that was a risk for me there.

How did you feel about taking that risk?

It felt a little bit like I was...once you get on the tracks ...by character I tend to be see things through even when it's too my cost, even when it's not sure that that's the best thing, to keep it going rather than to turn round, maybe that's a male feature again I'm not sure. And then when I was in France I was like right I'm going to leave this place which was safe, I know people here and move to another town which I don't know and enrol on a French course there just because I think that I will get more out of that. I'm happy to take a risk when it only affects me. I don't like taking responsibility for risking other people(s). That's ok if you want to be an entrepreneur. That's ok if it's just you, but as soon as you are employing someone it becomes more tricky.

And it helped my confidence there. It made me perhaps take the risk of applying for a job where, I went to the presentation for this job where they came round the campus and they basically said what they were looking for and I thought well they don't even teach economics as a subject so I thought there is no point in applying but I thought I'll apply anyway and I'll meet the person, and they said perhaps you could teach business studies but the interview involves this, this and this and I really thought I wasn't going to get it so I started off the application and then didn't...and I was half way through it and I was getting contacted by them saying you haven't finished your application so I was like ok ok I'll finish it. So it was... I just threw myself into it thinking I probably haven't got a chance but it looks really good and then having to go down to the interview and having to do all the tasks and things they ask you to do very typical for a graduate employer but I quite like going for interviews because you are never likely to see that person again if it doesn't work out, you talk about yourself – everyone's favourite subject is I or me and if it goes well, fantastic, and if it doesn't, you've learnt something about yourself, you get some feedback on it: however many friends or colleagues you've got, it's only the really close ones who will say hey Edd you really need to cut your hair shorter or ...and you go to an interview and you might not get that kind of criticism but they'll say maybe you talk too fast or you didn't give clear enough examples or something . I think it's a really good learning experience when you take those risks. And I like that in my holidays as well. I feel that I get something out of the risk-taking experience. And that's what I find in my holidays, whether it's travelling or mountain biking or trying a new kind of extreme sport type thing, that's really exciting 'cos you learn oh actually I am scared of heights or I could cycle for that distance or gosh I really don't want to go to that country again, the food tastes horrible but maybe..... **(You sound as if you do quite a lot of risky things in your spare time)**. I like those kind of holidays and the excitement. I don't

want to go on holiday just by the beach, I'd rather go for the adventure holiday, the backpacking holiday or the festival rather than the more relaxing holiday, which would probably be quite boring for me.

What goals did you set yourself (if any) upon graduation. To what extent are you achieving these?

So I was looking first of all at getting a job, I got this before graduation but it was still dependent upon me getting a 2:1 so that was the first step but the reason I chose this employer was because it has really good contacts with businesses so I saw it at the time, less so now, but as a stepping stone. Okay if I work in the education sector I'll have the opportunity in the summers to work in the finance sector and that might encourage me, that might get me the contacts and some of the experience to lead into that career. So on graduation I thought right, in two years down the line I will be a qualified teacher and this experience of developing my confidence in front of a class 'cos I think that one of the things that led me to do it in the first place was right how confident are you in talking in front of people? Not very, so what would be the worst kind of thing you could do? Stand in front of a classroom and just building those experiences up. And I still, I would hate to stand up in front of the whole assembly or something like that but I looked at it as one of my weaknesses and thought it was a bit like going to interviews. It was scary so I wanted to try and do more of it. One of the reasons why I like teaching and going to interviews is because I wanted to develop my self-confidence there, my presentation skills, ultimately looking towards eventually working in a very small business or my own business and I'm going to need to be able to work with a wide range of people and present to them and to have the contacts in order to build it. I've not necessarily gone that way. It's two years and I'm applying for teaching jobs still!

To what extent do you believe you control your own destiny (locus of control)? Do you feel that the SA experience influenced this? Can you cite examples?

A large extent I think when you are young. These tools were given to me by my parents and they are tools of yes, education but probably more for me it has been the social skills that you don't get from your family and from your school. It is like if you imagine bringing up a middle-class kid who is going to be confident and able to work or be in different environments then I was a product of that kind of experience. So that openness that's it's given me through the travelling and the experiences of my parents and the willingness to actually have a go at things rather than go my dad didn't do anything or my mum didn't do anything so maybe I don't need to push myself or maybe I can't. I'd seen that my sister who is older than me had achieved something, I'd seen that my dad had and my mum had and I felt pressure to achieve in their eyes, there was definitely a pressure to do something that they would approve of.

Was this your perception?

By nature I do try and please, whether that is my boss or my parents so they perhaps weren't pushing me out of bed at 7 o'clock to make me do something but even when I went into teaching my mum was really keen for me not to be a teacher because she wanted me to work in business and it was only that I work for this organisation that has these links with business that's she's actually really proud of it now and I really like that she's proud of it and

that's kind of like fulfilled those type of goals. But yes, I think my destiny is a lot more open when you are young and as you get older you start to pick up a job in a location or a house in a location or a partner in a location and these have...it doesn't take it away from you but it limits your ability to say ok, I control my destiny therefore I am going to change career, or I'm going to change location or whatever it is.

Do you believe in fate?

No. I think that if you believe in fate to an extent you can, for me on a personal level, you can be giving up responsibility for your own future and especially sometimes when you have been so lucky to have health and family. That to me are the two most important things. I mean your family your friends and your health. Money and all those other things may not come but if you've got those things I think it is a real shame not to try to do something with them. I feel really lucky to have been given to tools by my parents and to be fit and healthy and still have them around but I want to do something, not do something crazy or amazing, but I'm not going to sit around and say that fate is going to decide what happens. Which is probably one of the reasons why I won't stay in this school because I feel like it was a great experience for the first two years but if I stayed here I would have a cat and I would have a wife and a couple of kids here and that would be my life. You only get one of these so I want to do something bigger than that or at least to have some experience and see that no actually the best thing is to live here with a wife and kids and cat, but I don't know that yet...not to do that.

Would you say that the SA experienced influenced your outlook on your destiny in any way?

Yes. I think that going abroad has opened my eyes in terms of the horizons, I am more aware of what is out there, whereas if I had grown up in one town and not been abroad and not met many people then I probably would think the good thing would be for me to get a good job in that town and that would be the extent of it. But my limited experiences abroad so far have shown me that actually there's so much available and there's so much more that I would like to try. It's stretched out further my ambitions. My ambitions have grown and my horizons...if I can make that into a cliché!

Is there any element to your career/lives that you would consider entrepreneurial?

This wouldn't necessarily have been the traditional path I would have taken. I've chosen to go this way, and I still don't know if it was the right way and I might find myself turning again to do something else but while I am still young I want to keep trying at different things until I'm really confident that that's the thing I want to do, so I am quite experimental in what I want to do and one of the things that attracted to me to this career was the holidays , because you can be experimental then you've got the time to do it.

Thank you.

Appendix 6: Demographic Information on Interviewees

PERSON	M/F	AGE	DEGREE	STUDY/WORK ABROAD	COUNTRY
STUDENT					
B	M	23	Accounting and Finance	Work	France
C	F	23	International Business	Work	France
D	M	21	Accounting with French	Study	France
F	F	21	Geography	Study	Sweden
L	F	22	International Business	Study	France
T	F	23	German Studies	Work	Germany
V	M	22	Biology	Study	USA
W	M	30	Music Technology	Study	USA
GRADUATE					
A	M	25	International Business	Both	France
E	M	29	Economics	Study	Spain
G	M	25	Economics with Politics	Work	France
H	M	24	International Business	Study	The Netherlands
J	M	23	Economics	Work	Spain
K	F	30	Economics with French	Study	France
M	F	25	Accounting and Finance	Study	USA
N	M	23	Management Sciences	Work	France
P	F	29	International Business	Study	Spain
R	M	31	International Business	Work	Spain
S	F	24	Law	Study	USA
U	M	24	Geography and Business	Work	France

Appendix 7: Distribution of Items in Factors at T₀

FACTOR	ITEM NUMBER	ITEM
F1	IA1	I enjoy finding new ways to approach tasks
	IA2	I enjoy finding unusual solutions for problems
	IB1	I usually try to work things out for myself rather than follow instructions
	IC2	I believe that when pursuing goals or objectives, the final result is far more important than following the accepted procedures
	IC3	I believe that to be successful you can use practices that may seem unusual at first glance
F2	IB4R	I rarely question the value of accepted procedures
	RA1R	I prefer to be in an environment where there are few risks and I know what is expected of me
	RA3R	If I felt that the chance of failure was high I would not start something
	RB1R	I rarely put myself in a position where I risk losing something important to me
	RC2R	I believe it is better to be safe than sorry
F3	AB3	I always strive to be among the best in my peer group
	AB4	I set myself challenging goals
	AA4	I get a sense of accomplishment from pursuing new opportunities
	AC3	I believe it is important to think about future possibilities
	RA2	I would like a job in an environment where the rewards are high but the risks are also high
F4	IA3	I get a thrill out of doing new things
	IA4	I like meeting new people so that I can exchange ideas and thoughts
	IB3	I usually take control in unstructured situations
	IC4	I believe a good imagination helps you do well in life
F5	CA2	I feel that I am ultimately responsible for my own success in life
	CC2	I believe that the work of competent people will always be recognized
	CC3	I believe that my life is determined by my own actions
F6	AB1	I usually deal with important matters straightaway
	CB3	I usually get on with things rather than wait for everyone else
	CB4	Once I start something I see it through to the end
	IB2	I am able to work on several things at the same time
F7a	CB2R	I have very little success when I try to influence events around me
	CC1	I have a lot of faith in my own abilities
	CB1	I create my own opportunities for myself
	CA1	I feel I know my strengths and my weaknesses
F7b	CC1	I have a lot of faith in my own abilities
	CB1	I create my own opportunities for myself
	CA1	I feel I know my strengths and my weaknesses
F8a	AC1R	I believe that meeting targets is the way to judge success
	AA1	I get my biggest thrills when my work is among the best there is
	AA2	I feel proud when I look at the results that I have achieved in my studies
F8b	AA1	I get my biggest thrills when my work is among the best there is
	AA2	I feel proud when I look at the results that I have achieved in my studies
F9a	RA4	The way I see the future for me is dramatically different to the way things are now
	RB2	I don't mind taking chances with things that are important to me if I feel that the results warrant the risk
	RB3	I am prepared to take chances with my career choices
	RC3	I believe you should take some risks in life
F9b	RA4	The way I see the future for me is dramatically different to the way things are now
	RB3	I am prepared to take chances with my career choices
	RC3	I believe you should take some risks in life
F10	AC2	I believe that success shouldn't be measured only in monetary terms
	AA3	I prefer a sense of achievement over just getting a financial gain
F11a	AB5	I do not dwell on things that have happened in the past
	CA3R	I feel like a failure if my plans don't turn out as I expect
	AB2	I make a point to do something significant and meaningful every day
F11b	AB5	I do not dwell on things that have happened in the past
	CA3R	I feel like a failure if my plans don't turn out as I expect

Appendix 8: The Questionnaire

Group	Section 1	Section 2	Section 3	Section 4	Section 5
Before: T_0					
SAWA0	Demographic data	Activity in coming year	Background of entrepreneurship	Attitude questions	
WPUK0	Demographic data	Activity in coming year	Background of entrepreneurship	Attitude questions	
NSA0	Demographic data	Activity in coming year	Background of entrepreneurship	Attitude questions	
After: T_1					
SAWA1	Demographic data	Activity in past year	Mobility experience questions	Entrepreneurial intentions and impact	Attitude questions
WPUK1	Demographic data	Activity in past year	Entrepreneurial intentions and impact	Attitude questions	
NSA1	Demographic data	Activity in past year	Entrepreneurial intentions and impact	Attitude questions	

Section 1: Demographic data (T_0 and T_1)

1. Full Name:

2. Gender:

3. Nationality (*Optional*)

4. Age: (*Optional*)

5. Name of home university:

6. Title of your degree programme:

7. How many years of your degree have you completed?

Section 2: Activity in coming year (T_0)

8. In the coming academic year will you spend part/all of it studying abroad?

If yes, where and for how long?

9. In the coming academic year will you spend part/all of it working abroad?

If yes, where and for how long?

Section 2: Activity in past year (T₁)

8. In the 2011-2012 academic year did you

Only do study abroad?

Only do work abroad

Do a mixture of both?

Spend some time abroad AND d a work placement in the UK?

If you were abroad, where and for how long?

Section 3: Background of entrepreneurship (T₀)

10. Have you ever considered running your own business? (*Optional*)

11. Have you ever started up your own business? (*Optional*)

12. Does any member of your immediate family run their own business? (*Optional*)

13. Have you studied any small business / entrepreneurship subjects in your degree so far? (*Optional*)

Section 3: Mobility experience (T₁)

9. Why did you go abroad? (*Optional*)
(*select all that apply*)

10. What major difficulties (i.e. problems that were not solved quickly or relatively easily) did you encounter while abroad? (*Optional*)
(*select all that apply*)

11. On reflection, would you say that the following personal attributes changed because of your experience?

a. Tolerance of others

b. Respect for diversity

c. Flexibility

d. Open-mindedness

e. Cultural empathy

f. Independence
g. Confidence
h. Emotional stability
i. Assertiveness
j. Maturity
k. Problem-solving ability
l. Resilience
m. Taking the initiative
n. Creativity
o. Willingness to take risks
p. Control over my own actions

12. Overall, how would you rate your period abroad? *(Optional)*

13. Would you say that this international experience has changed you as a person? *(Optional)*

Section 3: Entrepreneurial intentions and impact (T₁)

15. Have you ever considered running your own business? *(Optional)*

16. How likely are you to set up your own business within a couple of years of graduation? *(Optional)*

17. How likely are you to set up your own business at some point in the future? *(Optional)*

18. Did you study any small business / entrepreneurship subjects in your degree? *(Optional)*

19. Has your international experience changed your attitude towards setting up your own business? *(Optional)*

Section 4: Attitude questions (T₀ and T₁)

Students are asked to respond using a scale of 1 – 7 (1 = strongly disagree, 7 = strongly agree)

Q14 a. I would like a job where the rewards are high but the challenges are also high

b. I usually deal with important matters straightaway

c. I am willing to take chances with things that are important to me if I feel the results will warrant the risk

d. I have very little success when I try to influence events around me

e. I am prepared to take chances with my career choices

f. I believe you should take some risks in life

g. The way I see the future for me is dramatically different to the way things are now

h. I enjoy finding unusual solutions for problems

Q15 a. I have a lot of faith in my own abilities

b. I feel I know my strengths and weaknesses

c. I create my own luck in life

d. I believe the work of competent people will always be recognised

e. I feel that I am ultimately responsible for my own success in life

f. I believe that my life is determined by my own actions

g. I feel like a failure if my plans don't turn out as I expect

h. I usually get on with things rather than wait for everyone else

i. Once I start something I see it through to the end

j. I prefer to be in an environment where there are few risks and I know what is expected of me

Q16 a. I believe that meeting targets is the way to judge success

b. I get my biggest thrills when my work is among the best there is

c. I believe that success shouldn't only be measured in monetary terms

d. I feel proud when I look at the results that I have achieved in my studies

e. I make a point to do something significant and meaningful every day

f. I believe it is important to think about future possibilities

g. I prefer a sense of achievement over financial gain

h. I strive to be among the best in my peer group
i. I get a sense of accomplishment from pursuing new opportunities
j. I set myself challenging goals
k. I do not dwell on things that have happened in the past

Q17 a. I believe that when pursuing goals the final outcome is more important than following accepted procedures

b. I enjoy finding new ways to approach tasks
c. I believe it is better to be safe than sorry
d. I usually try to work things out for myself rather than follow instructions
e. If I felt that the chance of failure was high I would not start something
f. I believe that to be successful you can use practices that may seem unusual at first glance
g. I am able to work on several projects at the same time
h. I believe a good imagination helps you do well in life
i. I get a thrill out of doing new things
j. I rarely put myself in a position where I risk losing something important to me
k. I usually take control in unstructured situations
l. I like meeting new people so that I can exchange ideas and thoughts
m. I rarely question the value of accepted procedures

18. Please indicate below whether you are willing to be contacted by me to discuss some of your answers in more detail. (*Optional*)