Does Studying Taught Postgraduate Management Education increase Students' Perceptions of their Employability?

Clare Elizabeth Jones

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Candidate: Clare Elizabeth Jones

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Abstract

Rationale: Employability features prominently in the current lexicon surrounding higher education. What is evident in the literature is that employability has no single definition and has evolved from an economic interpretation of the ability to secure work, to a multi-faceted concept, including skills, self-efficacy and self-regulated learning. Higher Education Institutions are coming under increasing pressure to address employability as part of their portfolio, while operating in an increasingly turbulent and competitive environment. Much of the existing research into employability in Higher Education concerns itself with the undergraduate population. There exists little research into postgraduate employability. This study seeks to contribute to that gap by exploring whether postgraduate management education has an impact on students' perceptions of their employability.

Research Methods: A sequential mixed methods approach was used involving two phases of data collection. Phase 1 was a survey of 450 students from two Universities' Business Schools who completed a paper-based questionnaire. This quantitative data was analysed using SPSS. Phase 2 comprised follow-up interviews with 10 survey participants, following completion of their programme. The interviews were informed by the survey, and transcripts were analysed using NVIVO 10.

Findings: Survey findings from the whole research population (n=450) saw some differences in students' perceptions of their employability following their engagement with the taught programme. Postgraduate education has a more positive impact on females' perceptions of skills and self-efficacy than on males' perceptions. Students with work experience perceive their employability higher than those without work experience. Those without work experience perceive their skills and self-regulated learning higher after postgraduate education.

Discussion: The similarity in results in students' perceptions between the data collection points suggests more could be done within the programmes to make a difference to students' perceptions of their employability. Where differences do exist suggests opportunities for specific interventions, to enhance students' perceptions.

Conclusion: Underpinning this work is the contention that increasing students' perceptions of employability requires postgraduate education to enhance students' perceptions of their skills, their perception of themselves as independent learners, and their perceived self-efficacy. Survey findings suggest postgraduate management education is achieving this aim in part, indicating opportunities for interventions to address this.

Keywords: Employability, Self-efficacy, Self-Regulated Learning, Postgraduate Education.

Papers Resulting From this Study

Jones C.E (2011) *Raising Awareness of Employers' Requirements* Presentation at Placenet UK Conference, Oxford, May 2011

Jones C.E. (2009) *Addressing Employability through the Curriculum* Presentation at HE Academy BMAF Workshop, Nov 2009

Jones, C.E. (2009) *Competences and/or Competencies: What Are Employers Looking For?* Paper presented at 10th International Conference on Human Resource Development Research and Practice across Europe, June 2009

Jones, C.E. (2008) *Employers, Educationalists, Students and Government: Stakeholders' Expectations in a Changing Environment.* Paper presented at BMAF HE Academy Conference, Edinburgh, April 2008

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1.1   Introduction to the Chapter

This chapter introduces the thesis. It outlines the background to the study introducing the concept of employability which underpins this work, and the gap in knowledge to which this work makes its contribution. Further, this chapter describes the structure of the thesis, outlining the content of each chapter. Employability has been, and continues to be, a feature of the economic, political and social landscape (McQuaid et al, 2005; Qenani et al, 2014).   In 2008 the then Department for Industry, Universities and Skills proposed that employability should be central to the mission of all universities (DIUS, 2008). This position has shown no sign of abating and employability remains a focus within Higher Education (HEFCE, 2011). This thesis unpacks the concept of employability and examines whether students perceive their employability to be changed after their studies. In doing so this thesis contributes to the canon of work around employability, specifically at postgraduate level, where, as will be noted, little research exists at present.

The term 'contribution' has been introduced at this early stage since it encapsulates the nature of doctoral study as adding to knowledge (Phillips, E.M. et al, 2000; Birley et al, 1998). Implicit in this ability to add to knowledge is a personal journey to get to this point. Finn (2005:23) discusses the necessity for the PhD student to develop their own knowledge and skills during the doctoral study, noting education to be "an experience of personal transformation". This idea of a journey of development draws together both the content and process of this work. In terms of content, this study seeks to examine the changes experienced by students during their postgraduate studies, focussing on perceived employability. In doing so the intention is to contribute to existing knowledge about postgraduate employability, knowledge which may be of value to the academic community, policy makers, programme designers and those who intend to undertake postgraduate study.

In executing this, a personal journey has been undertaken, one of acquiring knowledge and skills, and increasingly, one of personal reflection. It is this realisation that education is knowledge viewed through a prism of introspection which has proved most illuminating. Put more simply this process has crystallised a personal understanding that postgraduate study is much more than a collection of facts to be absorbed from an external source. Rather, studying for an award is multi-faceted, requiring self-belief, perseverance, the confidence to critique new ideas and to be persistent in the face of disappointment and criticism. As such the content of this work and the process by which it has been achieved have entwined, reinforcing recognition that postgraduate study is much more than an academic activity. Without becoming unnecessarily introspective, it seems relevant to note this reaffirmation of the purpose of education given the nature of this study, one which seeks to explore whether students' self-perceptions have changed as a result of their studies.

1.2   Background to the Study

This study explores the extent to which postgraduate management education contributes to the perceived employability of its graduates. As will be detailed later, one of the stated aims of postgraduate management education is to address the employability of students. The research is based on the analysis of data gathered from students undertaking a range of postgraduate management programmes. Students are drawn from two University Business Schools in the Birmingham area, one a 'post-1992' University, one a pre-1992 (non-affiliated) University. It is an investigation into the perceptions held by students about their employability, and the extent to which these perceptions alter during the course of their studies.

As noted above, employability occupies a key place in the HE agenda. The literature review will demonstrate how employability has been defined, variously as ranging from a wish list of skills to something more multi-faceted (Knight & Yorke, 2002; Dweck, 1999, 2007; Yorke, 2001; Dacre Pool & Sewell, 2007; Hinchcliffe & Jolly, 2011). The literature review explores the considerable shift around the employability discourse from an individual simply 'getting a job' towards a more

sophisticated view of the individual gaining a range of attributes which have broad appeal (Lees, 2001; Boden & Nedeva, 2010). The review extends that idea, describing the evolution of employability, its definition(s), development and position within Higher Education.

For the purpose of this study the following definition of employability is proposed as the **ability and attitude to apply and adapt knowledge and skills to current and future opportunities across a career path enabling contribution to a range of occupations in public, private or not-for-profit sectors.** This definition is presented here without elaboration, for the purpose of establishing context. The definition has been informed by research, and will be revisited and unpicked in the following chapter.

A number of factors compelled this work, initially development of primary work around employability within the changed - and changing - landscape of the Higher Education sector. Increasingly, universities' business schools are positioning themselves as places which provide more than a qualification, rather, a learning experience to develop individuals with the expertise and attributes employers want (Qenani et al, 2014). While there exists much work at undergraduate level around employability, there is a lack of research at postgraduate level (Morgan, 2014) and where it does exist has tended to be small scale, as with Morse (2006), Hay et al (2005) and Maxwell et al (2009). Lane et al's (2004) work is larger, focussed on self-efficacy as a predictor of performance. Rothwell et al's (2009) more large scale study looks at employability and ambition, building on earlier work at undergraduate level, which had noted the potential for further studies in this area. The lack of research into employability at postgraduate level suggests an opportunity to contribute knowledge to the employability debate, in an under-researched area, against a backdrop of the changing landscape of Higher Education.

1.3 Employability and Higher Education

Employability occupies a prominent position on the political and academic agenda and this study highlights the debate which exists around both its definition and ownership for development. As has been noted, an aim of higher education is to address employability. While the literature review

(Chapter 2) will explore in detail the development of employability as a concept evolving from being perceived as capable of work to a more sophisticated construct, the key points are noted here. Gazier's (1999) sequence of the various definitions of employability across the twentieth century is recognised in literature as capturing the sense of employability as an evolving construct (de Grip et al, 2004; McQuaid & Lindsay, 2005), from simply an ability to work, to a more sophisticated construct subject to internal and external forces. At this point it should be noted that there is no definitive list or blueprint of what employers want, nor is it suggested here that employability is a construct defined by employers, as the literature review will address in detail. What the literature review will detail is the complex nature of employability as far more than a collection of skills (Akhurst, 2005; Fugate et al, 2004).

Informed by literature (see Figs. 5 & 6) a model of employability is presented as a construct of skills, self-efficacy and self-regulated learning. The discourse around skills is discussed in detail noting the complexity and difficulties in determining what this means to the different stakeholders in Higher Education. A discussion around self-efficacy drawn from Bandura's work (1977, 1982 and 1997) describes people's self-belief in their ability to perform which determines their behaviour, motivation, and approach to activities and events. Those with high levels of self-efficacy approach tasks with the confidence that they will perform to achieve the desired result, thus they exhibit perseverance in the face of difficulty, embrace difficulties and establish challenging goals for themselves, in the belief that they will succeed. Such approaches tend to foster high levels of performance (Bandura, 1982). Those with low self-efficacy tend to avoid what they perceive they cannot accomplish, give up readily and fail to set challenging personal goals, believing themselves unlikely to perform as the task demands. This suggests self-efficacy as contributing to employability (Knight & Yorke, 2002, 2004; Dacre Pool & Sewell, 2007) in that those with high levels of self-efficacy are more employable as they are capable of deploying the behaviours and approach to work which effect success. The contribution of self-regulated learning to employability is explored in particular noting the recognition of an ability to reflect and thus develop and perform (Zimmerman, 2008). Learning to learn is noted as a consistent feature of

employability frameworks, and the importance of developing the strategies to enable life-long learning is presented.

The landscape of Higher Education is discussed in Chapter 2, however, to summarise here, in developing a programme the Higher Education Institutions (HEIs) look to subject benchmark statements from the Quality Assurance Agency (QAA), to relevant Professional Bodies, and to Employers (see Appendices 1,3,4 ,7 & 8) to inform what a programme needs to address. In this way courses are created with reference to employers and industry standards, not purely from an academic perspective. In subsequent chapters detail is provided about the programmes in this study, but in brief, the postgraduate management programmes seek to develop students who, among other things are team players, capable of engaging with others, able to evaluate and apply theory in the workplace and are able to work independently within a professional environment. The references to the workplace suggest the link between education and industry where knowledge is able to be applied. Developing employability is a stated aim in the programmes within this study, since a key part of being an effective performer is bound up in a sense of personal belief (Bandura, 1997; Hillage et al, 1998; Mason et al, 2009).

The aim of this study is to explore whether postgraduate management education increases students' perceptions of employability. In order to do so methods of enquiry, detailed in Chapter 3, are used to capture students' perceptions in relation to their skills, self-efficacy and self-regulated learning at the start of their studies, to determine whether those beliefs alter, and to ascertain aspects of the programme which leave a positive impression.

1.4   The Research Question

The Research Question in this study asks:

Does Studying Postgraduate Management Education

increase students' perceptions of their employability?

In addressing this there are a number of avenues of enquiry which suggest themselves, notably to unpack the concept of employability and to explore where, or whether, it is addressed in management education. Literature offers considerable research output into employability based on undergraduates, as will be demonstrated in the following chapter. The contribution this study seeks to make is in its research output about employability among the postgraduate population, where there has been less research to date. A focus of the study is to examine whether postgraduate management education contributes to the perceived employability of its graduates. This raises a number of issues, not least of which is what employability is, and its significance to the different stakeholders in the postgraduate area. The study will address this, and in doing so has the potential to inform practice and theory.

1.5   Structure of the Thesis

The thesis is organised into six chapters. The content of each chapter is detailed below.

1.5.1   Chapter One: Introduction

This chapter introduces the thesis, establishes the context and signposts the reader through the work. The introduction notes the contribution this work makes to knowledge.

1.5.2.   Chapter Two: Literature Review

The chapter's introduction outlines how the chapter has been organised, noting the scope of the literature covered, and the rationale for its inclusion. For clarity the literature has been grouped into a number of sections, covering the different themes pertinent to this work. Broadly, these sections offer an overview of Higher Education which is the context for this work; an examination of the different perspectives of stakeholders in Higher Education, and the theoretical underpinning which

informs the proposition that employability is multi-faceted, comprising skills, self-efficacy and self-regulated learning.

Firstly, and in order to contextualise this research, there is an overview of the changing landscape of higher education, with reference to the key reports and surveys which has impacted on the sector in recent years. In addition, this section introduces the UK Framework for National Qualifications which provides a more immediate grasp of where Masters' programmes are located within Higher Education; and the benchmarks which guide expectations of a Masters graduate, employability, and transferable skills, all of which are pertinent to this study. There follows a review of the emergence of employability, including a range of descriptions and definitions which have informed the definition developed for this study. A number of employability frameworks are presented which serves to highlight the recurring themes which provide the theoretical underpinning for this study, specifically skills, self-efficacy and self- regulated learning. The chapter turns to the stakeholders in Higher Education, in particular to current students whose views are at the heart of this study, reasons for which are detailed within the text. The section focuses in more detail on the postgraduate education sector, its definition, composition and trends, particularly in growth and funding, during recent years.

Summarising this chapter leads to a number of research objectives which frame the study. The research objectives are then used as the basis for the research hypotheses which are presented in the following chapter.

1.5.3   Chapter Three: Research Methodology

A set of research hypotheses are presented which have been informed by the research objectives outlined at the conclusion of Chapter Two. A sequential mixed methods approach has been employed in this study, and this is defended in an exploration of the underpinning research philosophy. The chapter includes the detail of the research design. The first phase of data collection generated quantitative data from a survey of 450 postgraduate management students across two Business Schools. The chapter details the survey design including administration and analytical

considerations to ensure ethical integrity. The second phase collected qualitative data from a small number of the survey participants who had agreed to take part in follow up interviews. The qualitative element, though a smaller part of the study was designed with the same rigour as the survey to maintain ethical standards, and the design is detailed here.

1.5.4   Chapter Four: Findings

Chapter Four presents the findings, in the sequence in which data was gathered. The first part of this chapter presents the descriptive analysis of the participants who engaged in the survey, as noted above, 450 students drawn from a range of postgraduate management programmes at two Universities' Business Schools in the West Midlands of the UK. This chapter then goes through the detail of the survey findings, focussing on the themes which have emerged through the literature review. The survey findings provide an insight into a student population engaged in postgraduate study, and also explores changes in perception across the duration of the programme. The findings from the interviews are then presented, these giving an insight into the nuances and perceptions which the quantitative data cannot provide. These findings are presented using verbatim quotations, to give participants their voice. The interview structure is informed by the survey design, thus the findings from the interviews provide a view of students' perceptions of aspects of their studies which have had most impact, within the context of this research. This chapter focuses on presenting the findings without going into significant analysis at this juncture. The chapter has been constructed in this way to suggest areas for discussion which are to be developed more fully later. This is to enable the reader to absorb the findings from the data before moving on to the implications.

1.5.5.   Chapter Five: Discussion

The implications from the findings are discussed in this chapter. The chapter opens with a review of the research hypotheses which were presented in Chapter Three, and the findings are related to

them. The discussion is then framed around the research objectives informed by the Literature review, to provide a lucid structure to the study. Returning to the literature, insights and meanings from the data gathered in this survey are exposed, indicating the contribution this work makes. In particular the discussion will explore the construct of employability and the journey experienced during postgraduate study, which underpins this research.

1.5.6   Chapter Six: Conclusions and Recommendations

The final chapter summarises the main findings from this work and draws conclusions from the discussion of the research objectives and hypotheses. This chapter revisits the study's starting point and addresses the main Research Question as to whether engaging in postgraduate study increases students' perceptions of their employability. This provides a platform for discussion of implications from the findings, and posits recommendations for the stakeholders in postgraduate management education, and beyond. In addition, avenues for future work which have emerged during this study are identified here.

1.6   Chapter Summary

This chapter has introduced the background to the study, proposed the Research Question and identified the contribution this work seeks to make. The structure of the thesis has been outlined, with a summary of what each chapter will address.

Chapter Two   **LITERATURE REVIEW**

2.1   Introduction to the Chapter

This chapter provides a critical review of the literature relating to this study, and develops the theoretical framework. Given the scope of this work, literature embraces a number of areas, thus an overview and their relevance is summarised in Fig. 1. This serves to signpost the reader through the themes which underpin this study. The chapter concludes with a summary of the key points which have emerged from the literature. A series of research objectives arising from the literature are presented which frame the study. This leads into the following chapter which will outline the research design.

Higher Education Institutions (HEIs) are under pressure to improve the employability of their students (DIUS, 2008; HEFCE, 2012). Contextualised thus, this study investigates whether postgraduate management education increases students' perceptions of employability. This chapter will expose an immediate issue – that there is no single definition as to what employability is (McQuaid et al, 2004; Hillage et al, 1998), and that employability is perceived differently by the different groups who, it could be argued, have an interest in students' employability (Tymon, 2011). Further, much of the literature around employability relates to undergraduate studies while postgraduates appear to be "a forgotten group who are not explicitly encouraged to think either about their skill or career development" (Lees, 2002:7). Though there is some evidence of research into postgraduate employability, this area remains relatively untapped (Maxwell et al 2009; Rothwell et al, 2009; Morgan, 2014) compared with the extent of work at undergraduate level. As such, this study is a contribution towards addressing this gap.

2.2 The Scope and Rationale of the Literature Review

Embarking on the thesis requires planning so as to create a literature review which is focussed, constructive and relevant (Wallace et al, 2006; Clough, 2012). The design for the literature review is presented here to give an indication of the thinking behind what is presented in this chapter.

The starting point for the literature review is the context in which this study is rooted, that of Higher Education. Attention is drawn to the turbulent environment in which HEIs are operating, the significant contribution postgraduate education makes to the UK economy, and the composition and trends within this sector. The review will note how employability is a recurring theme in Higher Education.

Developing this, the focus is turned towards the concept of employability, early definitions and the focus on skills. This discussion is developed presenting the position that employability has evolved from an economic interpretation of the ability to secure work, and the skills required to do so, to one which embraces a number of elements including knowledge, skills, aptitude and personal qualities. A number of frameworks are presented which highlight three particular recurring themes which are explored in this study, those of skills, efficacy beliefs and self- regulated learning. This section provides the theoretical framework for the study.

In terms of contribution to knowledge, the chapter returns to the context of Higher Education. Of the range of stakeholders in Higher Education, this study has perceptions of current postgraduate students at its heart. The reason for this is twofold. Firstly, literature suggests research around employability has focussed on those holding different perspectives, be they employers, the government, graduates and educationalists, presenting an opportunity to add more around the view of current students (Tymon, 2008). Secondly, where the perspective of current students is evidenced, this does not concur with that of other stakeholders (Tibby, 2012), suggesting a voice which should be heard. Further, as has been noted, HEIs have been tasked with addressing the employability of their students (DIUS, 2008; HEFCE, 2012), and given the call for more research into the postgraduate arena (Wilson, 2012), this is a timely and relevant contribution.

Thus, given the scope of this work the literature review embraces a number of themes, an overview and their relevance is summarised here.

Fig. 1   Overview of the Literature Search

Relevance to the Study	Theme(s)	Detail
Context for the Study	Changing Landscape of Higher Education	- Key facts and Dates - Surveys and Policy - National Framework for Qualifications
	Postgraduate Education	- Composition - Trends
Theoretical Underpinning	Employability	- Emergence - Definitions - Employability Skills - Beyond Skills - Frameworks - Self-efficacy and education - Self-Regulated Learning and education
Contribution to knowledge	Stakeholders in Postgraduate Education	Employers, Government, HEIs, Wider Society & Students

2.3   The Changing Landscape of Higher Education in the UK.

This section presents an overview of the changing environment in which Higher Education operates, to provide the context for this study.

2.3.1 Key facts and dates in the timeline of UK Higher Education, post Dearing.

Higher Education in the UK can trace its roots back to the twelfth century with the foundation of the University of Oxford, the oldest in the English speaking world (World Ranking Guide, 2013). Higher Education has evolved over centuries into a sector with significant impact within the UK economy, equipping the workforce with graduates and postgraduates, contributing research and supporting industry, with one hundred and sixty institutions providing higher education to approximately two and a half million students (HESA, 2015).

To provide context and structure to the research, this research focusses on the changing landscape of Higher Education following the 1997 Dearing Report. The Dearing report is pivotal since its brief was to determine the developments for Higher Education for the forthcoming two decades. In addition, 1997 saw the election of the first Labour Government for thirteen years, and the establishment of the Quality Assurance Agency, all heralding changes in policy, vision and the monitoring of Higher Education in the UK. As such, this suggests a significant milestone from which to date this review.

To provide an insight into the intervening years, Fig. 2 provides an overview of the key reports and events which have shaped the environment in which Higher Education exists today. What this summary underscores is the dynamic environment in which Higher Education exists, the extent to which higher education and employers are being encouraged to work together and the move towards a more student centred focus, where HEIs become increasingly accountable for the student experience. The summary makes reference to the Framework for Higher Education Qualifications which are discussed in more detail in the following section.

Fig. 2   Key Reports and Milestones in Higher Education Post Dearing

Date	Report	Key Points relating to HE
1997	Dearing Report (National Committee of Inquiry into Higher Education) by the then Conservative Government into HE funding developments for the next 20 years.	Proposes a national framework for higher education qualifications (FHEQ) (2.3.2), to be developed and maintained by the Quality Assurance Agency for Higher Education
		Makes specific reference to the need for a clear link between Higher Education and employment, in particular the development of skills identified by employers as important
		Recommends students pay 25% towards cost of tuition
1997	Quality Assurance Agency established	
1998	Teaching and Higher Education Act	Introduced fees <£1000 for undergraduates
1999	The Bologna Agreement	29 European countries agree to establish an international set of standards and classification by which national qualifications (**including masters' programmes**) may be compared. The reform process is anticipated to be conducted over the following ten years.
2001	Framework HE Qualifications published (**FHEQ**)	Aiming to consolidate and provide a consistent provision
2004	The Higher Education Act	Aim to widen participation
2006	Student fees increased to £3000pa for undergraduates	No regulation of postgraduate fees

2006	Leitch Report 'Prosperity for all in the global economy – world class skills'	Govt. to determine UK skills levels required by 2020 to maximise economic growth. A specific target was for 40%+ of adults to be qualified to level 4 and above, with a commitment to further progression. Research looking at skill levels' projections suggest this target will be exceeded slightly, and the actual figure reached will be 42% by 2020 (UKCES, 2010)
2008	FHEQ second edition	On-going development
2010	Browne Report: 'Securing a Sustainable Future for Higher Education in the UK'	No funding changes to postgraduate education
2011	White Paper: Putting Students at the Heart of Higher Education	One aim to encourage employer –university relationship, and to make HEIs more accountable
2012	Wilson Review	A Review of Business –University Collaboration which included reference and recommendations to postgraduate provision.
2013-	Postgraduate Education in England and NI Overview report	Produced as part of HEFCE response to requests from Government following 2011 Paper (see above).

2.3.2   The National Framework for Higher Education Qualification

This section provides an overview of the qualifications framework in order to contextualise postgraduate provision in the UK. Providing an overview of the extent of the framework gives an insight into the scope of higher education in the UK, and the structured way in which individuals may progress. HEIs in the UK, though supported in part by the Government, are independent and self-governing, and award their own degrees. The QAA, established in 1997, is an independent

body whose role is to oversee the provision of higher education, by means of institution visits, reviewing and reporting back on academic practice. An Academic Infrastructure has been developed, by the QAA, and representatives from the higher education sector. This infrastructure comprises four components which inform higher education provision in the UK. The components are:

- Framework for HE Qualifications

- Subject Benchmark Statements

- Programme Specifications

- Code of Practice

and their relevance to this study summarised below:

The framework (FHEQ) describes the 'levels of achievements and attributes represented by qualification titles' (QAA, 2010). A separate framework exists for Scotland, and both frameworks correspond to the Framework for Qualifications of the European Higher Education Area (FQ-EHEA). Subject Benchmark Statements describe, in broad terms, what may be expected from a qualification holder in terms of subject knowledge, and skills. The benchmarks are used to inform curriculum design, which is undertaken at institutional level.

Fig.3 QAA Framework for Higher Education Qualification 2008(Adapted from FHEQ.Source:QAA)

Typical higher education qualifications within each level	FHEQ level *Former (2001) Level Descriptor*
Doctoral degrees (eg,PhD/DPhil, including new-route PhD), EdD,DBA, DClinPsy)**	8

	*Doctoral (D)
Master's degrees (eg, MPhil, MLitt, MRes, MA, MSc)	**7** *Masters (M)
Integrated master's degrees***(eg., MEng, MChem, MPhys, MPharm)	
Postgraduate diplomas	
Postgraduate Certificate in Education (PGCE)****	
Postgraduate certificates	
Bachelor's degrees with honours (eg, BA/BSc Hons)	6 *Honours (H)
Bachelor's degrees	
Professional Graduate Certificate in Education (PGCE)	
Graduate diplomas	
Graduate certificates	
Foundation Degrees (eg, FdA, FdSc)	5 *Intermediate (I)
Diplomas of Higher Education (DipHE)	
Higher National Diplomas (HND)	
Higher National Certificates (HNC)	4 *Certificate (C)
Certificates of Higher Education (CertHE)	

At Master's level benchmark statements exist for a number of subjects – some of the sciences, engineering and for Business and Management. The latter were originally developed in 2000 and a revised version published in 2007 developed by the Association of Business Schools (ABS), at the invitation of the QAA. In 2010, the QAA published a document defining masters' characteristics, offering guidance and advice though not formally part of the academic infrastructure. The 2015

revision of the benchmarks includes specific reference emphasising students' employability, further evidence of the prominence of this concept in the lexicon around Higher Education.

Programme Specifications (or Programme Guides) produced by individual Higher Education Institutions are a requirement of the QAA. In developing Programme Specifications, as a key part of programme development, universities seek input and validation from industry, where appropriate. Programme Specifications contain the information relating to the content, aims, structure and assessment. Details of the Programme Specifications, including the Learning Outcomes pertinent to this study are included as appendices 1 and 3.

The Code of Practice outlines good practice in maintaining appropriate academic standards and quality across a number of areas, including assessment, managing students with disabilities, work based/placement learning and postgraduate research programmes.

What this section has sought to demonstrate is that in developing programmes universities do not work in isolation but are guided by external bodies, including policy makers, professional bodies and industry as to the content and outcomes. As may be noted, with reference to the 2015 revision of the benchmarks, the framework which informs development of qualifications is reviewed and revised which gives it relevance. This is relevant to the evolving concept of employability which will be explored within this chapter.

2.3.3   The Postgraduate Education Sector in the UK: Composition and Trends.

Postgraduate education forms a considerable part of the UK Higher Education provision, with the number studying for higher degrees increasing by 36% during the last twelve years, a higher growth rate than that in the undergraduate sector (CIHE, 2010). More recent figures taken from the Higher Education Statistics Agency Statistical First Release note postgraduate enrolments increased by 7% and undergraduate enrolments increased by 3% between 2007/08 and 2008/09 (HESA, 2010). The 2010/2011 statistics for postgraduate enrolments shows a 1.7% increase on the

previous year, though the figures for 2011/2012 show a fall of 3.4% from the previous year to an overall figure of 568,505 (HESA, 2013). This represented the first decrease in overall enrolments in a number of years. Latest figures show a 1% increase in total postgraduate enrolments from 2012/3 to 2013/4 to 539,440 (HESA, 2015). While it would be wrong to make too much of this since further figures are not available at this moment, it is noted here. What may be inferred is that there is a slowdown in growth, though this trend will only become clearer in time. It may be the case that the increase in undergraduate fees, and the accumulation of debt is having an impact on the numbers progressing to postgraduate education. Regardless, it is still the case that postgraduate education forms a not insubstantial part of the UK's higher education provision.

The term postgraduate is used to describe further study by the holder of a first degree, often without distinction between master and doctoral (see Fig. 3) levels (House, 2010). Setting aside doctoral study, there is further fragmentation as Level seven includes masters programmes, and professional certificates and diplomas (see Fig. 3). However, the QAA qualification definitions are based on outcomes rather than duration of study and as a result, the subsequent collation of diverse qualifications serves to promote consistency as to what may be expected at postgraduate level (House, 2010).

Masters programmes in the UK tend to be described as 'taught' or 'research' , the classification determined by the proportion of directed study (for example class-time/tutor-led learning) and independent study (self-directed/dissertation) which comprise the overall award (QAA,2010).

Detailed here is an overview of key trends (Growth, Internationalisation, Mode of Study and Funding) which have seen change in postgraduate education in recent years. What these trends suggest is a turbulent environment in which universities are operating.

Growth

The taught postgraduate market accounts for almost one fifth of all Higher Education students in the UK, and for over three quarters of all postgraduate students (Universities UK, 2009) and has seen the most significant growth within the UK postgraduate sector (House, 2010). Though growth

is slowing, and in some subject areas there has been a decrease in enrolment at postgraduate level this is not reflected across all subject areas, and of particular relevance for this study, there has been an explosion in numbers of UK Masters' students on business-related subjects, increasing by over 300% between 2000 to 2012 (HESA, 2013). The trend in growth continues with an increase of 4% in full-time Business related student enrolments from 2012/13 to 2013/14 (HESA, 2015). As the taught postgraduate market has considerable economic significance for the UK, one of the recommendations of the Universities UK (2009) report is for research into employability of postgraduate students. This recommendation for more research is echoed in the Wilson Review (2012) particularly in light of concerns noted as to the sustainability of the sector.

Internationalisation

The UK has long been a destination for international students particularly from the Far East (Chan, 1999). Trends during the last decade show an increase in student numbers from the new European Union member states illustrated by a 56% increase of Polish nationals and a 64% increase from Latvian nationals (HESA, 2006/7). Numbers of HE students domiciled from India increased by 24% from 2005/06 to 2006/07 and despite a reduction of 2% for that period, Chinese students represent the highest number of non-UK HE students - 49,595 in 2006/07 (HESA, 2006/7). Brown (2007) suggests the numbers of international postgraduates on taught masters programmes can be said to be supporting the survival of many university departments. In addition there is growth in the number of students electing to remain in Higher Education following graduation, and of students (both home and international) undertaking taught masters' degrees (Bowman, 2005). Latest (2015) HESA figures note in 2013/14, 81% of all student enrolments UK domiciled ('Home' students), with 5% and 13% other EU and non-EU respectively. The postgraduate population is somewhat different with the majority – 57% - of those enrolled on a full time programme classed as non UK domiciled (HESA, 2015). The overall diversity of the UK postgraduate population, (and, it is suggested, the continuing fluctuations in its international make-up) results in a 'vibrant and stimulating environment that brings together a variety of cultural knowledge, experience and insights' (DBIS, 2010).

Mode of Study

Until recently postgraduate education had shown a steady increase in both full and part time modes of study (HESA, 2010). Latest figures indicate a change with a continuing increase in full-time enrolments, there has been a decrease in the numbers enrolling on part-time postgraduate programmes (HESA, 2015). In addition, it is important to note that a student engaged on a full time programme may still be working part time, and in the case of postgraduate education the opportunity to work may be a financial necessity, informing the student's choice of where to study (Mazzarol et al, 2002).

Funding

The Higher Education Funding Council (HEFCE) provides funds to HEIs, based on a number of factors including student numbers, levels and discipline, though in comparison with undergraduate or postgraduate research programmes, the funding offered to HEIs and students for taught postgraduate provision is, and continues to be, limited (Universities UK, 2009; HEFCE, 2013).

Some postgraduate programmes have fixed fees (for example the postgraduate certificate in education) however, the mechanism by which fees are set and subsequently passed on to the student, operates differently for postgraduate and undergraduate programmes. For taught Masters programmes the fees are not regulated. Almost three quarters of those on taught postgraduates receive no support towards their tuition fees, or cost of living, and are self-funded (HEFCE, 2013). Despite this, only the USA attracts more international students than the UK, regardless of the UK charging higher fees to international students (House, 2010). House (2010) goes on to suggest the attractiveness of the UK as a destination may be due in part to the relative brevity of the programme (one-year masters taught in English as oppose to two year programmes elsewhere, as with the programme in this study), which minimise the living costs required for its completion.

2.4   The Emergence of Employability- an overview.

The previous section has provided an overview of Higher Education, its composition and trends. Attention is now turned to the theoretical model of employability which underpins this study. The first stage in this is to present a review of employability in terms of its emergence and evolution.

 Though it could be argued that the concept of employability as one where individuals are flexible in their approach to employment pre-dates industrial times (Bagshaw, 1997), the focus here is on more recent history to retain a manageable scope for this research. As such, the concept of employability is traced from early in the twentieth century (de Grip et al, 2004), and has evolved to occupy a central position in economic and education policy debate (McQuaid & Lindsay, 2005; Lees, 2002).

Gazier's work is widely cited in literature as offering an overview of the development of employability (de Grip et al, 2004; McQuaid & Lindsay, 2005) and as such it is pertinent to capture the key points here. Gazier (1999) distinguishes three specific waves of debate about employability, encapsulating seven definitions (depicted E1-E7 below). These three waves are summarised here:

Early 20th century

Dichotometic employability (E1) – whereby people are defined as employable or not. This binary concept of employability, emerging in the UK and US, and historically the oldest (de Vries S., Grundemann R. & van Vuuren T, 2001) distinguishes between those able and willing to work, and those not able to work because of age, ability or family, and in need of welfare.

1950s and 1960s

This second wave was precipitated by the introduction of quantitative measures to determine degrees of employability. Socio-medical employability (E2) refers to the gap between the characteristics/abilities of the disadvantages (be that physical, social or mental impairment) and what is required by the labour market. Manpower policy employability (E3) again focuses on the

gap separating individuals 'more or less' from regular employment, but the population is extends to all potential workers. Flow employability (E4) is how Gazier defines the emergence of a focus on demand and the availability of employment opportunity within the economy.

Late 1970s, 1980s & 90s

Expected labour market performance employability (E5) looks at employability in terms of quantifiable measures determined by policy interventions, for example hours worked, days employed etc. Initiative employability (E6) suggests a more dynamic definition, focussed on the individual developing transferable skills and using their networks to become more flexible within the workforce. Interactive employability (E7) retains a focus on the individual's responsibilities in maintaining their employability but recognises the impact of others, opportunities and the labour market.

This suggests a broader scope to the concept of employability than that of the acquisition of skills. Hillage & Pollard (1998) suggest an individual's employability requires a balance of four components. These are assets (baseline-basic skills and attributes, intermediate – generic occupational skills and attributes, and high level-those which contribute to effective performance); deployment (having the ability to make effective use of assets e.g. developing a career strategy); presentation (being able to articulate assets to a potential employer) and context (personal and external factors which impact on potential to work). This broadening of the concept concurs with Gazier's (1999) definition of interactive employability, suggesting employability is more the shared responsibility of policy makers, employers and individuals (de Grip et al, 2004). To this group HEIs should be added as stakeholders when looking at the employability of graduates, since the first three components in Hillage & Pollard's (1998) model, may be informed by the student experience.

There is criticism that too great a focus exists on the individual's accountability for their failure to be employed. McQuaid & Lindsay (2005:206) suggest Gazier's concept of 'interactive employability' has been hijacked to some extent by economists and Governments, to promote

policies focussed on getting individuals into work. They advance this point suggesting the patchy success of compulsory (by the State) interventions are indicative of a failure to address employability in the broader sense 'derived from, and affected by individual characteristics, and circumstances, and broader external (social, institutional and economic)factors that influence a person's ability to get a job'.

Where this leads, in the context of this study, is recognition of employability as a broad concept, beyond a collection of skills an individual must acquire. There is more at stake beyond an individual able, or unable, to get a job, as noted by de Vries, Grundermann & Van Vuuren (2001) who suggest employers should be investing in the employability of their workforce because this enables maximisation of the existing skill base, as well as enhancing the appeal of the organisation to potential new recruits. King (2003) advances this argument suggesting that employers should embrace graduates' desire to enhance their employability, as this can be channelled into the organisation to facilitate succession planning. This builds on an earlier notion proposed by Bagshaw (1997) of employability as a mutually reciprocal relationship, one in which the organisation creates strategic interventions to support and develop employees, who in turn embrace those opportunities and seek to develop their competencies in line with business needs. As such, self-development is attuned to the organisation's development. In terms of postgraduate education, simply considering employability in terms of an individual student's ability to secure employment appears short-sighted and blinkered, undermining the importance of the perspective of other stakeholders. This concept of stakeholders in higher education who have an input into higher education is revisited and developed in section 2.9.

2.5   Perceptions of Employability- the Discourse around Skills.

Considerable research around employability focuses on what is needed to satisfy the requirements of employers, and is reduced in the literature to discussions about possessing a set of skills which are valued by employers (Booth, 2003). Fig. 4 provides a comparison of frameworks offering an

insight into the range of skills relating to employability and demonstrates that while there is some consistency across the frameworks, there is no definitive view as to what constitutes employability. What this does is highlight the ongoing discourse around what employability is. Communication is mentioned consistently, team working is common, though one reference is to team *building* which is somewhat different suggesting an active role in growing the team rather than a less assertive, though nonetheless significant position as a team member. One of the problems with such a limited approach to employability is the difficulty in capturing a shared perception of skill. Dench (1997) highlights the problem in noting that the term, derived from the tradition of crafts and guilds and relating to the idea that one becomes skilled following a period of training, is now applied across a range of descriptions including generic skills, transferable skills, core and key skills.

Nabi (2003:371) notes the mix of graduate employability skills in the UK of "traditional intellectual and academic skills, e.g. analysis and problem solving" and more recently core skills "….e.g. communication and team work". Fallows & Steven (2000) note employability skills as ranging from an ability to manage information, and interact effectively with others, to the ability to solve problems and prioritise. The 2007 survey from the Institute of Directors cites honesty and integrity as the most highly valued qualities among recent graduates. Communication and team working are considered of great importance in new graduates, and this focus on 'soft skills' is evident in reports of employers' requirements as far back as Hawkins & Winters' 1995 '*Skills for Graduate in the 21 Century'* (Archer & Davison, 2008).

In their 2008 report, Archer & Davison note the lack of concurrence in the skills employers rate as of most importance (these being communication and teamwork), and their satisfaction in relation to the existence of these skills among new graduates. Confidence is rated in the top five of the skills rated, which has significance for this study, as self-efficacy forms a part of the theoretical underpinning, discussed later. The gap between how importantly a skill is rated, and employers' satisfaction at graduates' ability in that area, is greatest in the area of commercial understanding and work experience. They comment this dissatisfaction with work experience is particularly worrying in light of the falling numbers of undergraduates in the UK taking work placements, a

downward trend which, observes Green (2011), is continuing. Further, and of particular relevance to this study, is the high proportion of students joining taught postgraduate programmes who have no work experience (Martin & McCabe, 2007).

Fig 4: A Comparison of Graduate Employability Frameworks- the focus on skills.

Cranmer, 2006	Packer, 2007	CMI, 2014	Archer & Davison, 2008	Wilton,2008	Lowden et al, 2011
Skills to enhance Graduate employability, (UK)multiple sources	*Australian Government*	*What UK Employers' require from graduates*	*UK Employers*	*Skills for Business and Mgt graduates (adapted from multiple sources inc employer skills surveys)*	*Graduate skills valued by employers*
Communication (F,D,E,H)	**Communication (F,D,E,H)**	**Communication (F,D,E,H)**	**Communication(F,D,E,H)**	**Problem solving(B)**	**Team working(E,F,I)**
Numeracy(B)	**Teamwork(E,F,I)**	**Problem solving (B)**	**Team working (E,F,I)**	**Written and oral communication(F,B,D,E,H)**	**Problem solving(B)**
Literacy (B)	**Problem Solving(B)**	**Team building(E,F,I)**	Integrity	Foreign language	**Self-management(B)**
Communications & IT(B,H)	**Self-management(B,G)**	Motivational skills(E,I)	**Intellectual ability(A,C,G)**	**Numeracy(B)**	**Knowledge of the business (A,C)**
Problem solving(B,J)	**Planning and organising(B)**	Challenging poor performance (E,F)	Confidence(F,E)	**IT literacy(B,H)**	**Literacy & Numeracy relevant to post (B)**
Understanding world of work (A,C)	**Technology(B,H)**	Manage a project(B,E)	Character/Personality(E,H)	Research skills(B,F)	**ICT literate(B,H)**
Teamwork(E,F,I)	Life-long learning(G)	**Persuade-orally and in writing (B,D,E,F,H)**	**Planning & Organisation(B)**	Creativity (B,H)	**Interpersonal and communication skills (B,D,E,F,H)**
	Initiative and Enterprise(C,G)		**Literacy & Numeracy(B)**	**Teamwork(E,F,I)**	**Ability to use initiative and follow instruction(B,G,J)**
			Analysis & Decision making(G,J)		Leadership skills as required(E,F)

Items **in bold** are duplicated in two or more frameworks

Letters (A-J) indicate where skills inform the Skills Scale developed for this study detailed in Chapter 3 (Fig 11)

In one of the few references to skills and postgraduate study, Archer & Davison (2008) do note the minor importance employers attach to possession of a postgraduate qualification, which further supports the timeliness of this investigation. This need for further research was echoed in the 2012 Wilson review. Increasingly lean operations necessitate graduates who can manage their own work, use their initiative and do not require a great deal of individual support. This need is reflected in recruitment where employers "expect a graduate to demonstrate an understanding of what the business is about" and use selection methods to test the "all-round skills such as team-working, leadership, problem solving as well as technical abilities" (Raybould & Sheedy, 2005:261). The UK Commission for Employment and Skills (2009) identifies teamwork, communication, active listening, an interest in learning, problem solving, numeracy, literacy and taking criticism as the employability skills which, while not a substitute for subject knowledge 'make the difference between being good at a subject and being good at a job'. Literature aimed at the undergraduate student population offers an insight into what employers are looking for, detailing qualities over and above qualifications which are identified as key for a particular role. McMillan & Weyers (2006) suggest that employers demand subject specific or technical knowledge as a given and students should be prepared to demonstrate the personal attributes which distinguish them from their peers.

That the literature does not offer a conclusive definition of employability suggests employability has different meaning to different groups. Ballantine & McCourt-Larres (2007) make this point, that skills mean something entirely different to employers and educationalists.

Graduate employability is described by Dearing (1997) as the ability to secure work suitable to the standard of education achieved, and the report makes specific reference to the need for a clear link between Higher Education and employment, in particular the development of those skills identified by employers as important. The DIUS (2008) suggest Leitch's recommendations (2006) for 40% of the population qualified to Level 4 and above by 2020 are inadequate, compared with our competitors in global trade, adding that employability should be a core part of the mission of all universities. It should be noted that this message is not new, since the 1963 Robbins Report, whose

recommendations informed the subsequent development of Higher Education in the UK for the following decades, makes specific reference to the need to contribute to the labour market (Lees, 2002; Ward, 2008). Glover et al (2002:296) adopt a slightly different perspective in their research into higher education distinguishing between graduateness, "a statement of knowledge skills and understanding" and employability "concerned with those who have completed university courses can be assimilated into national and international employment".

Research shows employers suggest responsibility for developing these abilities to be that of the HEIs (Murray & Robinson, 2001; McHardy & Allan, 2000). Frustration is voiced by employers in the preparedness of graduates for the workplace and belief there is deterioration in abilities such as communication skills and team working when compared with previous generations (Bennet, 2002). There are many examples in literature of curriculum initiatives at undergraduate level to develop employability, for example in the work of Cassidy (2006), Ballantyne & McCourt (2007) and Stewart & Knowles (2001). As noted by Maxwell et al, (2009) little research exists at postgraduate level, hence this study.

One question as to whether academics are the right group to be delivering training in employability skills is raised by Zinser (2003) following the work of Nicholson & Cushman (2000) who noted not only a mismatch in the skills valued by the US retail sector and those valued by the HEIs, but a belief among the academics that their opinion would reflect that of industry – which was not the case. In addition, this misperception as to the rating of certain employability skills persists between graduates and employers (Raybould & Wilkins, 2005) who suggest employers, HEIs and students are working in isolation. Addressing this concern forms the substance of the Wilson Review (2012) which notes the need for a more collaborative relationship between education and industry. There exists distrust between the stakeholders' perception of each other's significance with research into employers' perceptions of HEIs suggesting some businesses are sceptical of academics' ability to retain currency in their field, and of their ability to maintain relevance in the curriculum delivered (Bennis et al, 2005).   In sum, there is evidence of tension between educationalists and employers.

The literature suggests the relationship between Government and the HEIs is equally fraught. In response to widening participation, Greenbank (2006) suggests HEIs are driven more by market forces, taking in students to prop up courses suffering a dip in demand, rather than by any altruistic attempt to be more inclusive.

Johnston & Watson (2004) suggest HEIs are resistant to a skills agenda driven by the demands of the state and employers as non-academic, and are critical of initiatives such as Key Skills and Progress Files as being too mechanistic. Watts (2006:15) refutes the suggestion that employability is inappropriate as part of a university portfolio and suggests that a focus on employability supports academic values in helping to "resist creeping vocationalism in course content" by emphasising the generic competences rather than direct subject relevance. In addition, he suggests since employability skills may be developed through extra curricula activities, this supports the value to be gained from experience of Higher Education per se. This point reinforces the opportunities for further research around the student experience within an increasingly diverse student population. Connor & Hirsh (2008:9) note the importance of active collaboration between employers and Higher Education, emphasising the need for two way communication of each other's "needs, capabilities and restraints" to replace the traditional engagement model of customer and supplier relationship. This is echoed by Maxwell et al (2009) who comment that since criticism regards students' poor employability skills tends to come from employers this suggests employers input as to their requirements should be embraced more readily by the HEIs. The Wilson Review (2012) goes further suggesting the need for employability skills does not rest solely at undergraduate level, but has relevance at postgraduate level also.

2.6 The Holistic View of Employability – more than skills.

The literature presents a more complex view of employability which is reflected in the theoretical model of employability underpinning this study. While the previous section is an insight into the expectations and frustrations of various stakeholders around a skills debate, in advancing this study

it is of relevance to note that defining employability in the language of skills diminishes the concept "divesting it of its complexity and richness and compromising the credibility of the employability agenda" (Knight & Yorke, 2002: 265). In conjunction with this view is the support for the distinction between employment and employability. There is criticism in the literature of the trumpeting of destination statistics to 'prove' the employability of graduates (Harvey, 2001; Cranmer, 2007), as too simplistic a measure, whereby a broader appreciation of employability goes to "counter to the narrow instrumental understandings of the link between education and work" (McArthur, 2011:743). Earlier, Harvey (2001) crystallises this point making the point that a distinction can be made between employability as potential and actual employment, supported by Wilton (2011:87) who notes it is possible "to be employable, yet unemployed…or underemployed".

The acquisition of a job is not the 'litmus test' of employability, rather employability "enables workers to identify and realise career opportunities" and "enhances an individual's likelihood of gaining employment" (Fugate et al, 2004:5). Knight (2004) is critical of the overemphasis on the language of the 'skills' to secure employment, and advocates a more holistic view. Rather than acquisition and retention of a job, employability is about graduates being armed with "skills, attributes and knowledge in order to develop a career path that may encompass a variety of occupations, in a number of sectors, and to contribute to the knowledge based economy of the 21 century" (Akhurst, 2005:8).

What is of note, in the context of this discussion, is the role of the self in measuring employability - as self-perception and reflection whereby an individual assesses their likelihood of career success based on personal reflection of their current abilities (Rothwell et al, 2007).

Thus in developing a framework to underpin this research attention is turned to the emergence of broader definitions of employability, embracing notions beyond a simple employer demand-led discussion about skills.

Though the Leitch report (2006) is couched in terms of skills it does note the need for skill developments to provide real returns for 'individuals, for employers and for society at large', and the importance of skills being 'portable to deliver mobility in the labour market for individuals and employers'. This idea of transfer, adaptability, flexibility and collective accountability and benefit, is more in keeping with the broader perception of employability. Fig. 5 presents a comparison of frameworks which posit employability as more than skills, and notes the views which appear with consistency, specifically efficacy beliefs, and concepts around reflection and learning.

The work of Knight & Yorke (2002) is recognised as key in defining employability as multi-faceted and more than skills (Martin et al, 2007; Tomlinson, 2012), and it is this concept which primarily underpins this study. Knight & Yorke (2002) draw on Stephenson's (1998) concept of capability with their insights from cognitive and social psychology to posit the idea that USEM (Understanding, Skills, Efficacy beliefs and Metacognition) inform employability. Knight & Yorke's study (2002) cited gaps in undergraduate curriculum evidenced in the Skills Plus project (mapping the USEM model and undergraduate curriculum) including ethical sensitivity, acting morally and the possession of a malleable self-theory. Yorke (2001) notes the importance of both having the requisite skills/abilities and the self-belief to apply them when faced with diverse challenges, in other words, it is not enough to have abilities but also required is the belief in oneself to apply those abilities in different situations.

There is support for this idea of employability being complex and multi-dimensional for example in Harvey (2001) and Harvey, Locke & Morey (2002) who argue that employability incorporates, in addition to skills/attributes, elements of career management and learning. In unpacking the notion of career management skills literature suggests that an individual's successful progress along a career path is supported by abilities and traits such as life-long learning, the ability to reflect and to be flexible (Dacre Poole et al, 2007; Bridgstock, 2009; Brown & Hesketh, 2004). Hinchcliffe & Jolly's (2011:563) research around graduate identity as a way of "deepening the understanding of graduate employability", advances this, noting the move from a skills-led approach to one of a more sophisticated and multi-faceted perspective where a traditional view of skills to secure

employment is underpinned by the individual developing a personal construct of employability. Further, the employability literature depicts learning increasingly in terms of not simply adding to one's knowledge but as a willingness to learn and to be able to reflect on learning in order to develop (Raybould et al, 2005; Harvey et al, 2002), hence a key part of education is learning to learn, in other words, developing the ability to manage learning, and thus to continue to learn (Endejok, 2013).

Fig 5 Models of employability – more than skills

Knight & Yorke (2002)	Bridgstock (2008)	CBI/NUS (2011)	UKCES (2009)	Hinchcliff & Jolly (2011) (adapted)
Understanding (as opposed to 'knowledge') *Skills* **Efficacy beliefs** Metacognition (<u>self-awareness of ability to reflect and learn</u>)	Self-Management skills: <u>appraisal and knowledge of self</u> *Career Building Skills* Underpinning traits and dispositions (inc **career self-efficacy**) *Discipline specific skills* *Generic Skills*	Self-management (inc flexibility, <u>using feedback and reflection</u>) **Positive attitude** *Teamworking* *Problem solving* *Application of IT & numeracy* Business & customer awareness	**Possessing a positive Attitude** *Numeracy/language/IT* **Self-management** Problem solving <u>including reflecting on and learning from actions.</u> *Interpersonal skills* Business acumen	**Mature attitude** <u>Interested in learning and development</u> <u>Able to reflect on one's own development and, identify areas of strength and weaknesses</u> **Confidence in own abilities**

Highlighted in **bold** relate to efficacy beliefs

Highlighted in *italics* relate to skills

<u>Underlined</u> relate to self-reflection on learning and development.

Informed by literature detailed above, and in Fig. 4 & Fig. 5, employability is presented in Fig. 6 as comprising combining skills, learning and self-efficacy.

Fig. 6 Components of Employability
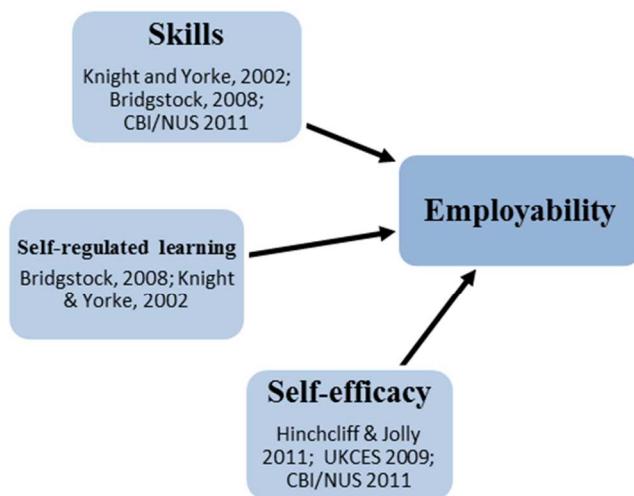
A definition of employability is proposed as the **ability and attitude to apply and adapt knowledge and skills to current and future opportunities across a career path enabling contribution to a range of occupations in public, private or not-for-profit sectors.** Employability is concerned with wanting to do a role since having ability does not necessarily mean using it (Connor et al, 2009), hence the need for the attitude to apply ability. The definition makes reference to employability as adapting knowledge and skills, which relates to Bagshaw's position (1997) of the need to embrace flexibility and change in occupation. This is echoed in the reference to current and future opportunities capturing the idea that employability is not simply the acquisition of a job, but something more long term (Ackhurst, 2005). The definition has been

constructed to reflect the idea that employees add something to the organisation (King, 2003), hence the use of the term contribution, though in this definition occupation is not limited to any one organisation. Finally, the sense that employability relates to individuals contributing to economic growth (Leitch, 2006; Wilson, 2012) is expressed, in terms which capture the idea that this contribution may be across a personally defined career path and in a changing industrial landscape, requiring more than key skills but self-development enabling lifelong learning (Lees,2002).

The relationship between learning and self-efficacy and employability is captured in the assertion that one aim of education should be to equip students with the ability and self-belief to develop themselves (Bandura, 1995), since students with the self-belief that they can achieve what is required are more likely to be successful in chosen occupations than those lacking self-belief (Dacre Pool & Sewell, 2007). Employers look for those who can develop and learn, as occupational requirements and roles change, and it is those capable of self-regulation who broaden their knowledge and adapt, while poor regulators lag behind (Zimmerman, 1990; Bandura, 2001). Further it is suggested that there exists a direct link between learning and employability since effective learning, whereby the learner constructs meanings, is enabled by the ability to reflect, by self-management and motivation (Scales, 2008).

The theoretical framework underpinning this study is that employability requires self-efficacy and an ability to manage learning, as well as skills. The skills discourse around employability has been discussed in some detail in this review. Attention is now focussed on a more detailed exploration of self-efficay and self-regulated learning in the context of education, concepts which have emerged from the literature as pertinent to employability, as presented in the model above.

2.7   Self-Efficacy

Fig. 6 presents the theoretical model of employability which underpins this work. Skills have been discussed at length, and the focus is now turned to self-efficacy as a component of employability.

Self-efficacy can be described as people's belief about their ability to have control over the events which affect their lives (Bandura, 1977, 1989). Considerable interest exists in self-efficacy and its impact on students (Atta et al, 2013; Adams, 2004; Lane et al, 2003; Pajares, 1996).

Early interest into the role of the self in exploring human activity was side-lined during the 1920s to the 1940s by the emergent school of behaviourism whose focus rests on the impact of external stimuli and conditioned response in determining human conduct (Pajares, 2002). Though subsequent movements saw a swing back towards the self with emergence, during the 1950s, of the humanists, most notably Maslow (Pajares, 2002, b), it was not until 1977 that Bandura (1977:191) in positing that "cognitive processes mediate change but ...cognitive events are induced and altered most readily by experiences of mastery arising from effective performance", introduced self-efficacy. The theory evolved from Bandura's exploration of the motivation of phobics, and his discovery of the differences in generalisation, specifically the perceived capability to use techniques outside the therapeutic environment, despite having confidence in performance of the technique itself. Bandura (1977:193) is making the distinction between outcome expectancy and efficacy expectancy because despite knowing that an action will produce a certain outcome, doubting in one's ability to execute the action means "such information does not influence their behaviour". In developing his work Bandura (1977, 1978, 1986) conceptualised reciprocal determinism – the idea that people reflect, self-regulate and make choices based on the interaction of personal, environmental and behavioural influences. Thus, people are as much architects of their own lives as subject to life. Perceptions of self-efficacy form part of the self- referent process.

People who have high self-efficacy, in other words those who have belief in their abilities, are more likely to embrace challenges while those with low self- efficacy avoid challenges (Bandura, 1977). Bandura suggests "the strength of people's convictions in their own effectiveness is likely to affect whether they will even try to cope with given situations" (1977:193), emphasising the importance

of personal conviction relating to one's ability. It is not enough to have ability, but there is a need to have the self-belief to apply it in a situation.

Bandura posits four determinants which inform an individual's self-efficacy, presented in Fig.7 and subsequently related to the context of this study. He identifies personal accomplishment as most influential since experiences of mastery serve to reinforce personal expectations. He notes that the opposite is true in that failures have a negative impact - not necessarily failure of the task itself but failure to engage with the task makes it less likely that an individual would have the belief to engage on a subsequent occasion – in other words an individual becomes trapped in a downward spiral. However, occasional failure is mitigated by experience of success, thus timing and the overall pattern of experiences is important. As noted later in this review students may decide on postgraduate education to compensate for perceived underachievement in their first degree, to prove to themselves they are capable (Brooks et al, 2009). In this sense the perceived failure is mitigated by being accepted onto a postgraduate programme, firm in the belief that this will provide the opportunity to demonstrate true ability.

Alternatively, in a higher education setting, the importance of managing student expectations is noted, when making the transition from undergraduate to postgraduate study. Former success may offset concerns about an initial struggle to engage at a higher level, though this may manifest itself later in an inability to accept criticism which may be perceived as unjustly, and destructively, critical, rather than constructive.

Vicarious experience can encourage intensification and persistence of effort. Within this Bandura (1977:198) suggests greater positive impact on efficacy is achieved when observing 'effortful coping behaviour' (seeing someone struggle and succeed), rather than seeing someone making an activity look easy. Verbal persuasion is widely used, though Bandura suggests this has a weaker effect on self-efficacy than personal experience. He notes the value of persuasion as an adjunct to providing additional support needed to facilitate success, and cautions that the danger in offering

verbal persuasion without doing so, discredits the persuader, and further undermines self-efficacy.

Fig. 7   Major sources of efficacy information and the principal sources through which different modes of treatment operate. (source Bandura: 1977:195).

Efficacy expectations	
Source	**Mode of induction**
Performance Accomplishments	Participant Modelling Performance Desensitisation Performance Exposure Self-Instructed Performance
Vicarious experience	Live Modelling Symbolic Modelling
Verbal Persuasion	Suggestion Exhortation Self-instruction Interpretive Treatments
Emotional Arousal	Attribution Relaxation, feedback Symbolic Desensitisation Symbolic exposure

Applying this to an employment or education setting suggests a number of considerations, for example, the danger in paying lip service to a situation requiring genuine engagement and effort; the importance of trust in working relationships, and the ethical considerations in widening participation in higher education without ensuring mechanisms are in place to facilitate

participants' success. Emotional arousal is the interpretation of reaction to situations, for example someone with high self-efficacy will view anxiety manifested in a racing pulse as positive and inspiring, as oppose to destructive and a precursor to failure.

This overview of self-efficacy has provided a background which informs an examination of this relates to the concept of employability. In its relatively short history self-efficacy has been developed and applied in numerous disciplines ranging from studies into depression and social skills to motivation and sporting prowess, and attracting much attention as a tenet within education research, as the following examples demonstrate. Knight & Yorke (2002) draw on the work of Bandura (1997) and Dweck (1999) to advance the USEM model of employability. Dweck (1999) suggests there are two broad facets to self-belief, as proposed by Bandura (1997), these being fixed/entity, and incremental/malleable. The former is the belief that one has a fixed amount of something (for example intelligence) that cannot be changed, the latter that development is possible, and likely to be probable. This idea informs one of the central themes to the study – that undertaking the programme will effect a change in self-efficacy.

There is considerable evidence in literature that females have lower perceptions of self-efficacy than males in academic settings, in career choices and salary expectations, and that these perceptions are long-held (Hogue et al, 2010; Choi, 2005; Vasil, 1992; Clement, 1987; Sullivan, 2009). In relation to this study, this is of note since much of the work cited into gender perceptions of self-efficacy exists at college/undergraduate level; hence in exploring self-efficacy as contributing to employability, this is an opportunity to explore gender at postgraduate level.

Bandura's (1977) construct of self-efficacy introduces the concept that achievement is determined by self-belief as well as ability, since, for example, the level of self-belief determines how long an individual is prepared to persevere, how quickly one is capable of recovering from adversity etc., Informed by Bandura (1977), Dweck (1999, 2007) and Knight & Yorke (2002), one aim of this study is to test whether perceptions of self-efficacy change after undertaking a programme,

researching within the postgraduate population to contribute to the sparse body of work among this group.

As noted earlier, HEIs are tasked with developing employability, through the programmes they offer. The aim of this study is to explore whether postgraduate management education is meeting that aim. Should self-efficacy have increased in this group then there is an opportunity to explore where and how. If interventions can be identified which are perceived as having a positive impact – for example a specific mechanism for delivering feedback which enhances students' enthusiasm for the next task – then there is potential for these activities to be generalised across other programmes. This notion is explored later, specifically with the analysis and discussion of the qualitative data.

As noted earlier (section 2.3) higher education is increasingly internationalised. Pajares (1997) and Tzung-Jin et al (2013) note cross-cultural dimensions of self-efficacy is under-researched, the latter noting Scholz et al (2002) investigation into cultural which suggests those from collectivist cultures (for example Asian countries) may have lower perceived self-efficacy than those from individualistic cultures. This suggests relevance to this study in light of the diverse nature of postgraduate population, noted earlier.

2.8   Self- Regulated Learning

The third component of employability, as presented in the theoretical framework (Fig. 6) is self-regulated learning. Learning is not a passive activity, and effective learners are those who "recognise the relationship between their patterns of thought and action and the social and environmental outcomes" (Zimmerman, 1986:307).

Learning theory underpins this study, most notably that which is concerned with learning as a social structure. In order to make sense of this it is apposite to offer a brief overview of the main

schools of learning theory to provide context to this element of the theoretical framework. Walker (1984) notes 'Darwinian roots' in some aspects of learning theory, suggesting Darwin's observations of mammals and subsequent inference of human ability, and his view of associations as an element of human intelligence informed aspects of behaviourist theory of learning. Walker (1984) does highlight a key difference in that while Darwin's work in part relied on anecdotal reports, the behaviourists embraced scientific experimentation, albeit generally confined to animals.

Behaviourism assumes that learning is a process of internalising knowledge from the external world to enable engagement with it (Harrison, 2009). In relation to this study, the relevance of behaviourism is in recognition of the potential for learning through repetition and reward. For example, for younger students, learning multiplication tables by rote can lead to an ability to regurgitate correct answers, (though does not demonstrate an understanding of numerical relationships). Jarvis et al (2005) suggest attempts to measure learning, displayed in learning outcomes commonly formed in curriculum design, are inappropriate where the learning outcomes are couched in behavioural terms (for example, *at the end of this session students will be able to*), since this prescribes the learning from the teacher's perspective, rather than giving freedom to the learner. It could be suggested that the issue is more one of the difference in learning and education. While learning may be 'owned' by the learner, education, as noted earlier in this study, has external stakeholders, with expectations that learning is manifested in some recognisable way. The postgraduate management programmes which are the focus of this study, are discussed in more detail in the following chapter (and included in appendices 1 and 3), where the learning outcomes indicate where students are encouraged to embrace innovative approaches to their learning.

Cognitive theory emerged from behaviourism, differing from the behaviourists in positing the self as an active participant in learning (Harrison, 2009), though the early cognitivists (for example Piaget) retained the positivist view that learning is a process of gathering and internalising

knowledge from the world outside, using thought processes such as memory and perception to process new information (Stewart et al, 2011). Piaget's work is noted with reference to this study since his notions of children's cognitive development occurring in stages has had significant influence on education (Jarvis et al, 2005). Thus students at postgraduate level may be products of education systems where learning is assumed to take place incrementally, and teaching designed to facilitate this. This is relevant to this study given the internationalisation of the student body, noted earlier (section 2.3).

Constructivist theory rests on the notion that rather than knowledge being something external to be gathered, the individual can be said to create meaning by assimilating new ideas into previous knowledge (Stewart et al, 2011). The relevance for this study is in recognising the potential for differentiation in learning since no two students will construct exactly the same meaning. Social learning highlights the significance of internal and external (social) environment on the learning process (Petri, 1996). A departure from presenting learning as a purely individual, internal activity, social cognitive theory contends internal factors - for example goals, and external factors - for example social situation, influence how individuals behave (ibid, 1996). This philosophy underpins the learning and teaching methods of programmes in this study, for example, with the inclusion of group activities and discussions.

Social learning posits people learn partly by observing others, and by observing the consequences of behaviours, which they may then demonstrate at a later time, in a situation considered by the individual to be appropriate (Schunk et al, 2010). The concept of a delayed application of learning is significant to this study since an element of management education is in contemplating the potential application of theory into practice. A key aspect of the aims of programmes in this study is enabling contextualisation of knowledge, and skills. More specifically, for example the expectation that on completion of study management theory may be applied to the working environment, as may be a range of enhanced personal skills, and self-confidence.

The social aspect to learning is not confined to mere observation, rather individuals' development may be positively impacted upon by the presence of others, as suggested in Vygotsky's 'zone of proximal development' whereby individuals achieve more "at the edge of familiarity" (Stewart et al, 2010:148) since the presence of others encourages stretching of personal comfort zone. This is pertinent to this study since education has a social context, and, has been noted, programmes in this study have been designed to incorporate groupwork.

Relevant to this study is a further aspect to social learning, that of the learning environment itself. Individuals' learning is influenced by their society and their place within that society (Huczynski et al, 2001; Jarvis et al, 2005) and the society itself changes in order to survive. The implication in terms of the students of postgraduate management education is in their assimilation into the education environment and the potential for them to learn from, and contribute to, it and each other. The significance of this within this study cannot be underestimated. Bandura (1982) suggests that, when faced with a new environment, those with low self-efficacy become stressful, dwelling on personal inadequacies and conjuring potential problems, which impedes their learning. In other words, the potential for advancement through positively embracing new situations is counterbalanced by the danger in inhibiting learning, through fear of the unknown. The implication of this for programme development is in recognising the need to offer challenges while supporting and encouraging learners.

This recognition of the differences in learners' needs leads to an appreciation that Bandura's (1977, 1978, 1986) contribution to learning theory is in his development of reciprocal determinism. He theorises that people reflect, self-regulate and make choices based on the interaction of personal, environmental and behavioural influences. Exploring the impact of self-efficacy and self-regulated learning underpinned an element of the research project which saw the development of the Motivated Strategies for Learning Questionnaire (MSLQ), originally developed in 1986, by Pintrich, Smith, Garcia & McKeachie, and used extensively since (see appendix 7) which has been

adapted for this study. Schunk & Zimmerman (1997) concur with the link between the two constructs, suggesting students with high self-efficacy engage and persevere with tasks, believing that they will succeed, and in noting progress reflect that they are capable of learning – which in turn raises self-efficacy.

It should be noted that this does raise the issue of the effect on the learner of perceived poor performance, though high self-efficacy may manifest, as suggested by Bandura (1977) in levels of persistence and adaptability, which overcome performance difficulties. Thus, people are as much architects of their own lives as subject to life. Contrary to the behaviourist position of learning, this view of agency notes that people are instrumental in their learning and ability to adapt (Bandura, 1982), and supports the emergence seen during the 1980s, of self-regulated learning (Zimmerman, 1986).

Bandura (2001:10) clarifies the link between efficacy and regulation noting "the metacognitive capability to reflect upon oneself *and the adequacy of one's thoughts and actions"* as an essential feature of agency. In other words the ability to self-reflect motivates actions, and pivotal to this is perceived self- efficacy, as individuals' motivation to act is partly informed by our self- perception of achieving the desired outcome (Bandura, 1997; 2001). Put simply, visualising a positive outcome a can reinforce efficacy, for example imagining one's graduation.

Self-regulated learning refers to the self-directed strategies and self-beliefs which enable learners to turn ability into performance (Zimmerman, 2008). Emerging from a view of learning strategy as directed to a particular context/task, self-regulated learning theory posits learners are 'metacognitively (able to plan, organise and self-monitor), motivationally (see themselves as competent and self-efficacious) and behaviourally (create environments to optimise learning) active participants in their own learning process' (Zimmerman, 1986). In other words, learners reflect on how they may learn, rather than focussing on just the learning itself. The extent to which an individual may deploy self-regulated learning strategies is informed by a positive self-image/self-

belief (McCombs, 1986). Self-regulatory processes may be described as comprising three elements: self-observation, for example where an honest review of behaviour may serve to raise awareness of personal learning strategies and motivate a learner to eliminate poor learning habits; self- judgment, where the learner compares performance with a standard which may be fixed (for example time constrained assessment) or normative (based on the performance of others) ; and self- reaction evaluating own progress in conjunction with anticipated satisfaction on achievement (Schunk & Zimmerman, 1997).

As Bandura (1977, 1978, 1986) proposes reciprocal determinism, so Schunk & Zimmerman (1997) suggest these three elements interact. The relevance for this study is to consider, for example, how a student may recognise a need to stop procrastinating, see that they are not making as much progress as peers and seek to develop a learning plan with realistic milestones and mini rewards. Academic self-regulatory processes include time management, engaging with teaching, organising study, and engaging with others as a learning resource (Schunk & Zimmerman, 1997). Tobbell et al (2010) identify the difficulties faced by some students in transition to postgraduate study which requires greater independence in terms of self-regulatory practices, than within undergraduate study where learning activities may be more structured.

As noted earlier, literature suggests the extent to which an individual employs self-regulation in learning is dependent on a number of factors including a positive self-view (McCombs, 1986; Zimmerman, 1986; Bandura, 1977). McCombs (1986) notes the self may be described in structural and functional terms: structural - as a hierarchical set of cognitive and self-enhancing constructs; and functional - in that an individual filters information, with reference to the self at the centre. More simply, as we develop we see ourselves as the centre of our own universe and process information based on our self-evaluation of our self-efficacy and personal control. The implications for learning are clear in that those with low self-esteem may be less able to employ self-regulation strategies. Thus, educationalists may consider interventions to enhance self-image, for example

positive feedback and formative assessment, and incorporating practical guidance in self-management of learning (planning/study etc), though a note of caution is suggested so that nurturing interventions are tempered by reality to avoid miss-managing student expectations. Equally, some degree of doubt in one's capabilities is essential to ensure learners do not under-prepare/under-achieve as a result of over-confidence. As Bandura (1982) suggests, self-efficacy needs to be sufficiently robust to overcome failure, and an element of doubt may serve as a spur.

On this note it is worth returning to Bandura's (1989) point that efficacy beliefs are strengthened by mastering an action through perseverance and easy victories lead learners to expect 'quick wins' which results in efficacy being undermined when faced with failure. In the UK, the growth of a culture of instant, and easy success exemplified by 'The X Factor', and an education system which work may be assessed as a 'deferred success' rather than a fail, may have developed a generation of learners some of whom have had minimal exposure to the idea of perseverance.

The concept of modelling has significant impact in this study. Bandura (1997) suggests the potency of modelling across a range of learning including inhibition/disinhibition (whereby learners/observers expect similar consequences for what they have observed), responses facilitated by social prompts and new learning acquired by observation. It should be noted that models may be other people either live, or symbolically (for example people or representations of people on screen) and print models i.e. written format (Schunk, Pintrich & Meece, 2010). The implications for education are manifest in that a range of models may be employed, other than traditional 'chalk and talk'. Embracing the range of technical solutions (from simple use of media to virtual learning environments) may appeal to a 'homozappian' generation making the learning environment appear more relevant (and credible).

Though the teacher may be, and provide, a model(s) for learning, perceived similarity between the model and observer is deemed to have considerable impact on learning (Bandura, 1986). Of particular relevance to this study is Adams (2004) who notes the self-efficacy of students towards

undertaking presentations more enhanced when exposed to a peer model rather than an expert (for example a lecturer) model. Observing success in others seen as similar to ourselves may serve to enhance the learners' self-efficacy (Schunk, 1987; Schunk & Zimmerman, 1997), though they suggest the opposite is also true, in that observing similar peers' failure may lower self- efficacy. There are implications for programmes in this study since groupwork forms an integral part of the learning and teaching strategies. Again, this suggests a question of balance whereby learners may be inspired by peers, but relating back to Vgotsky's zone of proximal development, this needs to be facilitated so as to stimulate learning without overstretching the learner.

Again, the contribution of self-efficacy in striving for success is relevant since, as noted earlier those with high self- efficacy are better equipped to deal with negative emotions (which those with lower self-efficacy may find debilitating) because they see challenges rather than obstacles. Further, high self-efficacy impacts on cognitive processes - as learners approach tasks with calm confidence, and on metacognitive processes, in that a self-awareness of one's ability to learn reinforces actual learning (Chemers, 2001). Further, this is pertinent to postgraduate study since internationalisation of the programmes, as noted earlier, implies students with different learning experiences. While entry requirements are consistent, students may be then faced with a different learning culture from that which they are used to, for example, where instruction is given and received without question may be at odds with a culture where criticism is encouraged and expected, which results in culture shock (Zhou et al, 2008). Clearly, there is an expectation that postgraduate learning is predicated on critical analysis, as evidenced in the learning outcomes (Appendices 1 & 3), but it could be argued that some students have a head start in this approach. Further, the mere idea of criticising the 'expert' may be unsettling for some, regardless of cultural background, should they lack the confidence in themselves to find the "entitlement to comment" (Tobbell et al, 2010:273).

Similarly, noted earlier, employers look for people who can work with others, and this is reflected in the programme learning outcomes (Appendices 1 & 3) and manifests in groupwork as a teaching and assessment strategy. Internationalisation may mean students of very different backgrounds working together. Considerable work exists relating to the impact of this ranging from the advantages this offers for both home and international students (Mazzarol et al, 2002), the difficulties this may present to those who lack confidence in group situations (Zhou et al, 2008), and the perceived threat felt by some home students that their academic success may be compromised (Harrison et al, 2010).

This section has provided an insight into the constructs within the theoretical underpinning to this study. Attention is now turned to the context for this work – that of higher education and in doing so the gap suggesting where a contribution to knowledge is to be made.

2.9 Employability and the Stakeholders in Higher Education in the UK

While section 2.3 has provided an overview of higher education, its composition and trends and the tasking of HEIs to address employability, this section advances the literature review with a closer look at the perspectives of stakeholders in higher education. While this study concentrates on students' perceptions, as noted earlier, it is important to provide context by incorporating awareness of other stakeholders.

The notion of the stakeholder evolves from that of the owner or shareholder in a concern (Hall et al, 2004). The traditional measurement of corporate success depicts organisations as occupying the centre of their own world, acquiring and then transforming raw resources ready for sale, and distributing some part of the value created to its owners – the shareholders (Crowther & Green, 2004). The concept of stakeholders originated as a suggestion that people, other than stock/shareholders were impacted upon by the organisation and thus had a stake in its behaviour (Mahoney, 1997). Stakeholder theory, as delineated by Freeman during the 1980s has evolved to

suggest in addition to its workforce, customers, suppliers and surrounding community, a business' stakeholders include all individuals and groups affected by a business' behaviour, the challenge being in addressing the needs of each group (Mullins, 1999).

Clarkson (1995) goes on to distinguish between primary and secondary stakeholder groups. Primary stakeholders are those without which the organisation cannot survive, for example, shareholders/employees/customers and the 'public stakeholder group'- government and communities. Secondary stakeholders' support is non-essential, but carries influence, for example the media, or in terms of post compulsory education - parents. Each stakeholder group, be they primary or secondary, may have different expectations, which may conflict (Johnson et al, 2009). In the context of this study, applying stakeholder theory to higher education, Garrison & Borgia (1999) posit the need to establish agreement in the educational process. They suggest the inclusion of the views of learners, HEIs, the community and industry will lead to the creation of 'useful benchmarks' in measuring quality which may include "dropout rates, response rates on assignments, student evaluations, the quality of the teaching package, the degree of freedom in pace and content, and the level of independence of the students" (Garrison & Borgia, 1999:1). Whether, of course, these benchmarks are valid indicators of quality is debateable, for example an ever faster turn-round on assessments may satisfy an administrative deadline, and score highly in terms of student satisfaction, but is no measure of the usefulness of feedback. Similarly, quantifiable information about retention can be gathered but establishing the underlying reasons for withdrawing from university is dependent on accessing students who have done just that, and are prepared to be honest in their responses.

In recent years there have been initiatives to capture data relating to some of these benchmarks, for example with the introduction of the National Student Survey (NSS) in 2005 gathering data from final year undergraduates across a range of issues relating to their programme. The corresponding survey at postgraduate level, the Postgraduate Experience Survey (PTES), run by the Higher

Education Academy was first deployed in 2009. Participation has grown, with the 2010 survey seeing responses from 32,638 students from 76 HEIs (Park & Wells, 2010). Latest figures available from the Postgraduate Taught Experience Survey, which collects feedback from those on taught postgraduate programme (the focus of this study), reports increasing participation over the six years it has operated (Soilemetzidis et al, 2014). The response rate in 2014 was 67,580 which is 28.3% of those students invited to take part, representing over 100 HEIs, suggesting a growing interest in students expressing their opinion on the education experience.

As noted above, this study aims to explore the student experience of postgraduate education. Garrison & Borgia (1999) suggest the stakeholders in higher education are learners, HEIs, the community and industry. Connor & Brown (2009), looking at the value of graduates and postgraduates, suggest stakeholders in this sense may include students and graduates, employers – specifically line managers, graduate recruitment staff and management development staff, and within the HEIs – academic staff and university careers staff. The danger in had been noted by Reavill (1998) cautioning that applying the stakeholder model designed for an industrial context, to higher education invites the inclusion of increasing numbers of stakeholders who may be of minor significance.

Srikanthan & Dalrymple (2003) note problems following the introduction of quality management systems into HEIs where TQM models, successful in industry, prove less so when applied to the higher education sector where the tradition of academic freedom is fundamental to its ethos. Focussing on the issue of quality in HEIs, Srikanthan & Dalrymple (2003) identify stakeholders as funding bodies and community, students, employers and employees of HEIs. In research looking at the transposition of quality models from industry to higher education, Reavill (1998) suggests a simple definition for a stakeholder as one who is paying for and/or benefiting from the organisation or activity. Applying this to higher education he argues that stakeholders in education, in addition to those noted above, could include family and dependents of the student (possibly those

contributing to the costs of the process/possible beneficiaries of an enhanced living the graduate attracts); suppliers of goods/services to the university and other universities from whom a student may elect to purchase their product.

This raises the notion as to whether students may be described as customers. Kanji et al (1999: 131) highlight the application of business models, specifically Total Quality Management in response to calls for greater scrutiny and public accountability, and defines students as customers being "buyers, users and partners of education". Owlia & Aspinwall (1996) note the resistance by educationalists to using what are perceived as market oriented terms. Randall and Brady (1997:235) refer to the "intrusion of the market" noting a shift in the traditional relationship between student and lecturer as one of "common enterprise and mutual responsibility" to one whereby the student is customer, monitoring the lecturer via quality systems and complaints procedures. It could be argued that the blunt application of market terminology is too clumsy since education and learning is not a passive activity requiring no input, other than financial, on the part of the student. This is not to suggest that students are *not* stakeholders in higher education, rather their role, albeit one which has changed, is not one of customer. Without wishing to diverge further the main themes of this study, the notion of students as customers has been noted here since Government policy output suggests HEIs are increasingly accountable for the student experience (see Section 2.9.3).

Informed by the literature, it is evident that there are a number of stakeholders in higher education, notably employers, students, HEIs, Government and the wider society/economy. Each stakeholder has a particular perspective of higher education, and of employability. These perspectives are captured below. This discussion around the stakeholders in higher education is important in illustrating the dynamic environment in which higher education operates, and drawing attention to the fact that programmes are not, or should not, be developed in isolation from the perspective of

one group. This study is grounded in postgraduate management education - as such, it is beneficial to have an understanding of that which has a bearing upon its development.

2.9.1 Employers' Perspective of Postgraduate Education and Employability

From an industry perspective it is suggested that the aim of postgraduate education is to equip students with a range of skills, and enhanced knowledge valued by employers (BIS, 2010). In addition to subject knowledge postgraduate study can nurture self-motivation, resilience and understanding, though employers may be unaware of the breadth of what a postgraduate can bring (Barber et al, 2004).

There is much research suggesting employers need high level skills (Leitch, 2006; Connor & Hirsh, 2008), though Connor & Brown (2009:9) note flaws in Leitch's recommendations pointing out that possession of a qualification at a particular level is not the same as using the qualification "nor the same as employers requiring a certain qualification". Connor & Brown (2009) further note the limited evidence to support a suggested link between the investment in skills or qualifications and improved productivity at the level of the individual organisation. It has been noted earlier that there is confusion as to what employers look for in graduates. Without reiterating the entire catalogue outlined earlier it could be summarised that employers look for a combination of skills, attitude, work experience and competence.

2.9.2 The Government Perspective of Postgraduate Education and Employability

Higher education is hugely important to the Government (CIHE, 2010; DBIS, 2010). The scale of HE's impact on the economy in terms of the growth of income it generates, and its export earnings, makes the sector 'comparable to the printing and publishing and legal activities industries and

larger than the pharmaceutical, aircraft and spacecraft and advertising industries' (Universities UK, 2009 b**:** 3)

Universities are relatively stable, large employers, rooted in a region and thus unlikely to relocate (Universities UK, 2010). Universities attract skilled people and in addition offer high levels of lower skilled support service roles, at a national and regional level. A major economic impact has been noted as the generation of jobs outside the university, for example of the 670,000 jobs generated as a result of the sector, only 372,000 of people are directly employed by the university (Universities UK, 2009, b).

A key factor is that of the impact of spending by international students and visitors (Universities UK, 2010) which may be of particular significance given the growth in the number of international students, noted earlier in this review.

The value and impact to the Government of postgraduate education higher level skills are noted earlier in this review, for example in attracting new business (DBIS, 2010), as a critical driver to becoming a high performing economy (Leitch, 2006). The requirement for specific management high level skills, and managers able to operate at corporate level, is seen as a high priority (UKCES, 2010). One of the key recommendations from the Wilson Review (2012) is for a smarter route by which talented postgraduates may enter the workplace more quickly, by virtue of a telescoped, and more business focussed programme.

2.9.3 Higher Education Institutions' perspective of Postgraduate Education and Employability

The value and impact of postgraduate education to HEIs is immense bringing an estimated £1.5 billion in tuition fees purely from the taught postgraduate provision (DBIS, 2010), and HEIs are under increasing pressure to develop programmes, particularly taught postgraduate programmes

attractive to the international market (Bowman, 2005). As has been noted in this review, it can be suggested that income generated by the increase in numbers of international students on taught masters' programmes is a significant factor in the survival of many university departments Brown (2007), and concern has been raised as to the sustainability of the postgraduate taught sector (Wilson Review, 2012). HEIs are under increasing pressure to be students' university of choice, hence their image and reputation is very important (Nguyen et al, 2001) and fragile (Mazzarol et al, 2002; Harrison et al, 2010). Research suggests students attach much importance to the HEI having a good academic reputation in enhancing job prospects (Soutar et al, 2002; Bennett et al, 2009), while Tomlinson (2008) further notes students' perception that the status of the institution is also of importance to employers.

Future opportunities exist for HEIs in collaborating with industry (Connor & Hirsh, 2008). Forging stronger links between industry and HEIs is a key recommendation from Dearing (2007) and earlier work highlights the importance of bridging the relationship between education and business (Ellis & Moon, 1998). More recently, as noted, the 2012 Wilson Review has made a series of recommendations to facilitate a more effective relationship between industry and education, reinforcing a number of points raised throughout this review.

As stated earlier, an output from postgraduate education is research, and that research population forms part of a university's research and teaching population (DBIS, 2010), which, it is suggested, given the increasingly diverse population, may serve to invigorate the population.

2.9.4. Wider Society perspective of Postgraduate Education and Employability

In terms of a wider contribution it is argued a robust postgraduate portfolio is essential to the UK continuing to be a leading player in research-currently delivering 8% of the world research output (DBIS, 2010). An earlier study for the DBIS notes that 2007/8 saw the UK achieve 12% of the

world's scientific citations, and for 2006/7 the UK arts and humanities community published one third of the world's output (DBIS, 2009).

To compete in the global economy Leitch (2006) suggests businesses need the management, innovation and leadership of a highly skilled workforce. He further notes that ignoring the need to improve our world class skill base, impeding the UK's ability to compete on the world economic stage, will have a trickle-down effect as an economic decline risks creating a generation who may be excluded from the workforce. This suggests ethical, as well as financial implications, for the wider community to prevent members of our society being condemned to long term unemployment.

One of the arguments put forward, increasingly, is of the benefits to the individual of gaining higher qualifications- the graduate premium. Connor & Brown (2009) note that while there is much made of the contribution and value of higher education to the economy, most of the evidence points more towards benefits for individuals. Research points to a move away from the belief that higher education is purely a public good, an idea reinforced by the increasing financial burden to the individual (Universities UK, 2008). An alternative perspective suggests an osmotic effect whereby others benefit from working alongside someone with higher skills, effecting benefits to an individual firm, or possibly the wider community (Galindo-Rueda & Haskel, 2005).

An increasingly diverse and international postgraduate population exposes us as a society. Different nationalities, having a positive experience act as ambassadors for the UK (BIS, 2010) and, of course the same advantage may be experienced at a local/university/regional level.

2.9.5 Graduates and Current Students' Perspective of Higher Education and Employability: a contribution to knowledge

Increasing numbers of the population entering higher education "sets a premium on those who can demonstrate something extra" (Bowman et al, 2005:6), further within the student (undergraduate) population there is growing awareness of the need to be distinguishable from the herd, and offering more than a degree to appeal to a potential employer (Tomlinson, 2008). In 2007-8, postgraduates in Business and Administrative studies earned, on average 36% more than those with a first degree, and postgraduates in general are more likely to be in work quicker after graduating (DBIS, 2010), further a postgraduate qualification is recognised as giving advanced knowledge and as such makes students valuable (DBIS, 2010). Students recognise this and cite enhanced career opportunities as a key factor in undertaking postgraduate study, (Park, 2008; Bowman et al, 2005) with younger students looking to improve prospects, and older students looking to make progress in a current career (Park & Wells, 2010).

The students' perspective is at the heart of this study. In exploring employability it is noted that the view of current students, as oppose to graduates, is under-represented (Tymon, 2011; Speight, 2013) and coupled with the relatively limited research into postgraduate study (Lees, 2002; Maxwell et al 2009; Rothwell et al, 2009; Morgan, 2014) this study is a contribution towards addressing this gap. As noted earlier, the concept of employability emerged from the employer/employment perspective and initial studies tended towards the employer perspective (Booth, 2003). Capturing the student voice starts to balance this body of research addressing concerns that the student body is a group whose perceptions are less widely represented in studies relating to employability, than those of employers (Moreau & Leathwood, 2006).

2.10   Research Objectives

To re-cap, the Research Question asks 'does studying postgraduate management education increase students' perceptions of their employability'. Literature has noted the evolution of employability to something multifaceted, and that there is an opportunity to explore employability within a relatively untapped field.

To organise the study into a more structured endeavour, the main research question has been broken into a number of research objectives (Anderson, 2009; Horn, 2010). The research objectives (ROs) have been informed by literature presented within this chapter and key texts are highlighted below as of particular relevance:

RO1   To explore postgraduate students' perception of their skills, self-efficacy and self-
           regulated learning at the start of their postgraduate studies (Knight & Yorke, 2002).

RO2   To determine whether postgraduate students' perceptions of their skills
           have altered after postgraduate study (Bagshaw, 1997; Bandura, 2001).

RO3   To determine whether postgraduate students' perceptions of their self-regulated learning
           have altered after postgraduate study (Zimmerman, 1990; Scales, 2008).

RO4   To determine whether postgraduate students' perceptions of their self-efficacy
           have altered after postgraduate study (Dweck, 1999, 2004; Bandura, 1997)

RO 5   To explore the relationship between perceived skills and self-regulated learning,
           and between perceived skills and self-efficacy (Bandura,1995; Schunk & Zimmerman (1997).

RO 6   To examine where, in the programme, interventions occur which have a

memorable effect on students' perceptions of their employability (Schunk &

Zimmerman, 1997; Adams, 2004; Bandura, 1997).

In addressing these objectives research will be undertaken within the postgraduate population, primarily by use of survey, with a small number of follow-up interviews. The research methodology chapter which follows expounds the philosophy underpinning this approach and details the hypotheses which have been formed from the research objectives.

2.11   Conclusion

The starting point for the literature review is the research question. In addressing whether postgraduate management education increases students' perceptions of their employability, this chapter has unpicked the question to address what is understood by employability and to contextualise postgraduate management education. In doing so, a number of theoretical perspectives have been explored around the concept of employability, most notably the view that employability comprises a number of elements beyond having a range of skills attractive to a potential employer. What this review does note is the scarcity of research into employability at postgraduate level, despite the significance of this group within the higher education landscape. Much work around graduate employability has been undertaken in the context of the undergraduate population. The aim of this work is to examine postgraduate employability, and in doing so that this contribution can shed light on this group.

One of the recommendations of the Wilson review (2012) which was published during the course of this study, notes the need for research in the postgraduate arena, which suggests this is a timely

study. In sum, employable individuals are those with career sustaining abilities, attributes and strategies, and, as noted, Higher Education Institutions have been tasked with demonstrating their role in addressing this. Employability is more than a set of skills, rather is informed by subject knowledge, skills, an understanding of one's self and self-belief (Knight & Yorke, 2002).

2.12   Chapter Summary

This chapter has outlined the plan behind the literature search, explored the literature relevant to this work and presented the theoretical framework. The origin of employability has been discussed, and a variety of meanings offered, which have informed a definition of employability. This study is rooted in higher education, and its changing landscape, and stakeholders, has been explored. The chapter concludes with a series of research objectives, and in undertaking these, the research question will be addressed. The following chapter describes the philosophy and methods by which the research is to progress.

Chapter 3 RESEARCH METHODOLOGY

3.1 Introduction to the Chapter

The focus of this study is to explore whether postgraduate management education increases students' perceptions of employability. A sequential mixed methods approach has been adopted, and this chapter commences with a critique of the relevant research philosophy which provides the context for the approach. This is followed by detail of each phase of the research design, summarised in Fig. 8.

The previous chapter concludes with a set of research objectives, which have emerged from consideration of the research question and the literature. In order to address the research objectives, a series of research hypotheses have been developed which are presented as follows. The purpose of developing hypotheses is to crystallise the investigation and be able to better test variables and the relationship between them (Sarantakos, 2005).

Fig. 8   Research Design Flowchart

Research Question	Identifies the big picture
Research Objectives	Drawn from the literature / identifies gaps and possible contribution
Hypotheses	Flow from research objectives
Results	Relate to the hypotheses
Discussion	Relates back to the literature and the research objectives
Conclusion	Addresses the Research Question

3.2 Research Hypotheses

In addressing the objectives nine research hypotheses have been created to provide structure to the research design. These hypotheses are linked to the research objectives presented in the previous

chapter. The first explores the postgraduate population at the start of their studies in relation to their perceptions of their skills, self-efficacy and self-regulated learning. H2, H3 and H4 are directional hypotheses positing the view that students will perceive themselves as more skilled, more self-efficacious and better able to regulate their learning at the end of their programme than at the start. H5, H6 and H7 advance the argument that there is difference between groups within the research population. The variables tested will be gender, work experience, age, nationality and institution. The literature review has noted the composition of postgraduate management education as diverse and changing. Yet programmes are designed as 'one-size fits all' and students' entry requirements are a blunt measure which assumes a level playing field. H8 and H9 seek to determine whether there exists a link between skills, self-efficacy and self- regulated learning.

H1   At the start of their programme of study, postgraduate management students perceive themselves to have high levels of skills, self-regulated learning and self-efficacy.

This is the starting point for the analysis and relates to RO1 (To explore postgraduate students' perception of their skills, self-efficacy and self-regulated learning at the start of their postgraduate studies). It has been noted in the previous chapter that there is an opportunity to address the lack of research into postgraduate education (Wilson, 2012). Work which does exist where employability has been assessed suggests there is some evidence that postgraduate students rate themselves higher than undergraduates (Rothwell, 2009) though little exists beyond this which draws these three constructs together. Bandura's (1977, 1982) position that previous accomplishments are key, underpins this hypothesis in that it is expected that having already acquired higher level qualifications (undergraduate) will serve to inspire confidence in relation to this programme.

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H2 **With reference to the skills scale, the mean score of students at the end of the postgraduate programme is greater than the mean score of students at the start of the postgraduate programme.**

This relates to RO2 (To determine whether postgraduate students' perceptions of their skills have altered after postgraduate study). Testing this hypothesis will determine whether students rate themselves as more skilled, measured by using the mean of the skills scale at the start of the programme, compared with that at the end. This methodology corresponds with that adopted by the authors of the tool (the MSLQ) which has been adapted for this study.

It should be noted that end of programme relates to the taught part of the programme, since this offers a consistent frame of reference for the study. Following the taught part of the programme, students undertake a dissertation which is an individual work, guided by a supervisor. As detailed later in this chapter, a smaller element of research was undertaken with students after they had graduated from their programme which offers an additional dimension to this research. The detail of the research design will be covered as this chapter unfolds.

Since these postgraduate management programmes' stated aim is to address employability (Appendices 1 and 3) it is anticipated that that students would have higher levels of perceived employability having undertaken the programme. The hypothesis reflects the points noted in the literature which suggest one of the key motivators for engaging in higher education is to enhance career prospects (Bowman, 2005; Park et al, 2010).

H3 **With reference to the scale for self-regulated learning, the mean score of students at the end of the postgraduate programme is greater than the mean score of students at the start of the postgraduate programme.**

This relates to RO3 (To determine whether postgraduate students' perceptions of their self-regulated learning have altered after postgraduate study). The position adopted here is that students will rate themselves higher using the scale for self-regulated learning at the end of the taught programme than at the start, underpinned by the position that one of the aims of education is to develop the ability to learn (Bandura, 1995; Zimmerman, 1986).

The analysis will be undertaken by comparing the self-regulated learning scale means of students taken at the start of the programme(s), and on completion of the programme, the methodology corresponding with that employed by the developers of the original survey instrument.

H4   With reference to the self-efficacy scale, the mean score of students at the end of the postgraduate programme is greater than the mean score of students at the start of the postgraduate programme.

This relates to RO 4 (To determine whether postgraduate students' perceptions of their self-efficacy have altered after postgraduate study). The assumption here to be tested is that students will rate themselves higher, using the scale for self-efficacy, at the end of the programme than at the start. The expectation is supported in the literature which suggests perceptions of self-efficacy may alter over time, subject to stimuli (Bandura, 1997; Dweck, 1999). The analysis will be undertaken by comparing the self-regulated learning scale means of students taken at the start of the programme(s), and on completion of the programme, in line with the methods underpinning the development of the original instrument.

RO 5 aims to explore the relationship between perceived skills and self-regulated learning, and between perceived skills and self-efficacy. In achieving this objective hypotheses (H5, H6, H7, H8 and H9) are presented to frame the research, looking in detail at the relationship between the constructs within the theoretical framework, and exploring whether differences exist within the

research population. This avenue of enquiry is informed by the literature which details the diversity of the postgraduate population.

H5 **There are statistically significant differences in the perceived skills, self-regulated learning and levels of self-efficacy for student groups engaged in postgraduate management education.**

The diversity of the postgraduate population has noted in the previous chapter (section 2.3.). Coupled with the lack of research into the postgraduate population this suggests a timely exploration as to whether any differences exist between groups within the whole research population who form this study.

H6 **There are statistically significant differences in the perceived skills, self-regulated learning and levels of self-efficacy for student groups at the start of their programme.**

H7 **There are statistically significant differences in the perceived skills, self-regulated learning and levels of self-efficacy for student groups at the end of their programme.**

Hypotheses 6 and 7 will mine the data to expose any differences between groups in the sample. These are non-directional, theorising a difference between groups, but not the direction. Informed by the literature, the variables to be tested which reflect the diverse population, are gender, work experience, age, nationality, and institution. There are three phases to this part of the analysis. Firstly, the groups within the entire sample will be analysed, as the sample in its entirety is a snapshot of postgraduate management students, for example, to determine a difference in the mean scores of males and of females comprising the data set. In addition it is possible to look at matched responses in a number of cases to explore changes in perceptions using a subset of the data base

comprising students who participated twice in the data collection. Secondly, a more detailed analysis will be undertaken, looking for differences at the start of the programme, for example gender differences in the skills scale, the scale for self-regulation and the scale for self-efficacy. Thirdly, analysis will look for differences in the scales on completion of the taught element of the programme, following the same process.

H8   There is a positive relationship between students' perceptions of self-efficacy and skills.

H9   There is a positive relationship between students' perceptions of self-regulated learning and their perceived levels of skills.

Testing this will determine whether there is a direct correlation between these constructs, as is presented in the literature. This can be tested by looking for correlation between scale scores. This analysis can be undertaken using the entire sample of respondents – as a snapshot- since that being tested is the correlation between scales, as oppose to a comparison of scales at given points in time.

The first phase of the research seeks to address these hypotheses drawing on quantitative data from a survey of 450 postgraduate management students across two Business Schools. The second phase collected qualitative data from a small number of the survey participants who had agreed to take part in follow up interviews. This second phase seeks to address the impact of the programme on the student in terms of where they believe employability to be addressed. Thus the phases are interdependent, the first offering an insight into the changes experiences, the second providing richer insight into thoughts and feelings of the concepts raised in the survey.

Subsequent sections of this chapter detail approaches to data collection and analysis undertaken in this study, and review ethical considerations.

3.3   Research Philosophy

In embarking on this study an examination of related studies informed both the theoretical considerations and approaches to research. Employability research among student populations demonstrates a range of research approaches. Survey–use dominates, most notably where the intention is to gather a large sample relatively easily, for example in Nguyen, Yoshinari & Shigeji's (2005) study of university students' perceptions of employability, Ballantine et al (2007) investigation of groupwork and generic skills development, studies of student perceptions of employability by Murray & Robinson (2001) and Rothwell et al (2007), career progression among recent graduates (King, 2003) and an examination of students' perceptions of what employers' value (Nguyen et al, 2005).

What is further evident is the predominance in gathering data through more qualitative means to drill deeper into *specific* aspects of the student perception. A range of projects have been undertaken to hear the student voice across different perspectives of the employability discourse including the exploration of student perceptions of 'graduateness' and what this means regards employment (Glover et al, 2006) and student decisions informing engagement in postgraduate study (Bowman, 2005). As noted earlier, the concept of employability emerged from the employer/employment perspective and initial studies tended towards the employer perspective (Booth, 2003). This study contributes to increasing work around the student perspective following concerns that their voice is underrepresented (Moreau & Leathwood, 2006). In designing this research it became apparent that this study comprised separate, albeit related, avenues of enquiry – the concept of employability, self-perceptions of efficacy, the nature of postgraduate management education - within its one central aim, necessitating objective reflection and consideration of what was trying to be achieved.

While the purpose of this chapter is not to chart a history of research philosophy it is appropriate to capture a few key points for contextualisation, more particularly to introduce the research design.

Two key stances in the philosophical debate surrounding research relate to positivism and anti-positivism. (For the sake of completeness it should be noted that at this point, the emergence of post-positivism, that which has developed from the positivism tradition, challenging the entrenched position of positivism regards claiming absolute truth in social research (Creswell, 2003). For the purpose of this study the term post-positivism is coupled with positivism as representing the same philosophical stance, since the aim here is to identify the opposite extremes of research paradigms, for the purpose of contextualising the study)

Though the concept of positivism may be traced back to the Ancient Greeks (Cohen et al, 2011) and draws heavily on the seventeenth century empirical ideas forwarded by Locke (Kumar, 2005) it is most strongly associated with the French philosopher Compte (1798-1857), and assumes objective methods are appropriate in measuring the social world, since that world exists externally (McQueen et al, 2002). There is no room for subjectivity and since there is one reality, knowledge is informed by observation. The essence of positivism remains a reliance on quantifiable observation of a single reality. Implicit in the belief is the independence of the observer from the study since there is only one reality - that which can be experienced. Interpretation is irrelevant since "data and its analysis are value-free and data do not change because they are being observed" (Healy et al, 2000:124). Anti-positivism is not a single opposing stance, rather represented by individual schools of thought sharing a common opposition to the nature of positivism, characteristics of which include:

- a belief that people construct their world based on their apprehension of phenomena
- a belief that events and individuals cannot be generalised
- the view that people interpret events and act according to their own interpretations, which implies
- the position that there is no single interpretation of reality

(adapted from Cohen et al, 2011)

Burrell and Morgan's (1979) model, presented in Fig.9, outlines the two broad philosophical stances represented by positivism and phenomenology, and as such serve to distinguish between philosophical, social and technical stances of positivism and anti-positivism.

Fig. 9   Features of Positivist and Phenomenologist Paradigms

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

(Burrell & Morgan, 1979: 179)

In terms of this study the aim is to determine the extent to which postgraduate management education has an impact on students' perceptions of employability. Drawn from literature, and as noted earlier, the position has been suggested that employability is a composite of self-skills, technical knowledge and self-efficacy (Knight & Yorke, 2002), that self-efficacy can be enhanced (Bandura, 1977, 1982; Dweck, 1999), that self-belief leads to successful performance in the workplace (Dacre Pool & Sewell, 2007) and that self-regulated learners are capable of adapting and broadening their knowledge (Zimmerman, 2008). Employability should be central to the mission of

a university (DIUS, 2008), and indeed, is a stated aim of the programmes of both institutions taking part in this research in this research (Appendices 1, 3 & 6). In this study the position is adopted that students have increased perceptions of their self-efficacy, perceive themselves as better self-regulated learners and perceive their skills higher following their studies.

Thus, there exists the philosophical contemplation as to whether there can be a single world view of concepts such as employability. Is the nature of perception something which lends itself more readily to interpretation, rather than a fixed objective reality? The stance taken in this study would appear to lean towards positivism, to determine a difference in perception between points within the postgraduate programme, suggesting a worldview that there are fixed points which may be measured. However, perceptions of skills, perceptions of self-efficacy and perceptions of self-regulation, are, by definition, interpreted and constructed by the self. This would suggest a leaning more towards an anti-positivism stance allowing for an interpretivist approach that there is no single reality since the world is constructed, and given meaning, by society (Healy & Perry, 2000). This stream of consciousness captures the internal debate in designing this study, and explains the journey towards adoption of mixed methods approach to this study.

Allan and Skinner (2002) suggest absorption in the philosophical debate may prove a distraction to the researcher, diverting from the aim of the work. Yet, not engaging in this level of reflection would be to trivialise the philosophy of research methodology and undermine the relationship between philosophy and practice. This is presented from a slightly different perspective by Gill & Johnson (2010) who suggest that the issue is not whether research should be informed by methodology, rather that the researcher has engaged in the contemplative process and able to defend the implied methodological position. Further, since practice is rooted in philosophy, an appreciation of philosophical standpoints, and their limitations, may crystallise the research focus and guide research design (Easterby-Smith et al, 1991; Coolican, 1994).

3.4   Designing the Research - A Mixed Methods Approach

The emergence of mixed methods research has attracted lively debate, since the approach would appear to attempt to reconcile polar philosophical opposites (Cohen et al, 2011). Immersion in the philosophical debate may lead researchers to consider research methods as mutually exclusive, however, while there are clear distinctions at philosophical level, there is support within literature for cross pollinating, or mixing methods, since this may be complementary rather than conflicting (Fielding and Fielding, 1986; Jankowicz, 1991). This view is developed further by Remenyi (1995) who advocates that opposing philosophies are seen as related concepts, rather than separate poles which may aid the researcher to see research methods as a pool of resources from which to draw in order to address a research problem. In essence, mixing methods involves collecting and analysing quantitative and qualitative forms of data within a single study, not on a whim, but in recognition that triangulating sources thus serves to enhance a study, minimising the limitations of a single methods approach (Creswell 2003; Tashakkori & Teddlie, 2003; Flick, 2011).

While positivism and anti-positivism represent extremes at the philosophical level, these extremes appear less distinct when considering the application of data collection methods (Burrell & Morgan, 1979). Quantitative research is broadly grounded in the positivist paradigm, and relies on the collection and analysis of data which may be scientifically analysed. Objectivity is key with little room for inference or supposition. However, too quantitative an approach may be perceived as inflexible and denying a depth and richness to the research and attempting to fulfil the standards of rigour defined by natural scientific enquiry can distort the practical value of the research (Thomas & Tymon, 1982). Qualitative research embraces meanings and interpretation with data collection methods designed to tease out different perceptions held by the researched. Advocates of the qualitative approach emphasise the value of detailed and free-ranging exploration, in some cases to the extent that "in a new field, a programme of interviews may be the only way of obtaining a realistic picture of the way people view it" (Sharp & Howard, 1996:147).

Qualitative and quantitative research methods are contextualised in terms of their relevant philosophies by Gill & Johnson (2010), who depict methods as occupying a continuum indicating the extent to which the research methods lean towards deduction or induction, types and nature of data generated. While Gill & Johnson (2010) note the model's limitations as rather blunt, though serving as a useful snapshot, it could be argued that this does contribute to the support in literature for cross-pollinating research methods.

The purpose of this study is to explore the impact of postgraduate management education on students' perceptions of employability. To address this different approaches to gathering data have been adopted. The first phase uses a broad survey to explore any changes in self-perceptions, the second phase comprises interviews with a small number of the population to determine, if possible, what, where and how such changes emerge.

Thus, the study draws from positivism in that it assumes knowledge about the phenomenon which may be quantifiably measured with the researcher adopting an objective position. The second phase features elements of anti-positivism in that meaning is interpreted from the perceptions gathered from individuals, who each have a perspective to voice which is valid to the study. The purpose of the first phase is to gather statistical quantitative information addressing the research position that following their studies, students will perceive themselves to have higher levels of skills, perceive themselves to be better self-regulated learners and will perceive their self-efficacy to be higher. In order to do this a survey instrument is used to gather data at points within the programme. The purpose of the second phase is to gather data exploring students' perceptions of these same concepts of skills, self-efficacy and self-regulated learning and explore in more detail initial findings from the survey, and the impact the programme has had. Each phase will be presented in detail, together with an explanation of the steps taken to address reliability and validity, limitations of the approach and appropriate ethical consideration relating to the participants' consent, confidentiality and anonymity.

3.5   Data Collection Methods Overview

Informed by literature, and with an insight into the requirements of the research, both quantitative and qualitative methods have been adopted, with the approaches viewed as complementary. Specifically, the methods are questionnaire survey and interview. Each element of data collection is detailed below.

3.6   Survey Design Overview

The first phase of the research design is a survey. Surveys offer a number of advantages in data collection, noted below

- The opportunity to capture a large number of participants

- Relatively cheap and easy to reproduce

- Consistency in addressing the population - the purpose and instructions can be written

- Ease of administration

- Potential to reduce researcher bias-each participant receives the same questions in the same sequence

- Offers anonymity to participants – reduces risk of fear/embarrassment

- May be analysed statistically

- Participant familiarity with survey method

(*Adapated from Burns, 2000; Walliman, 2011; Anderson, 2009).*

The survey is based on an existing instrument which has been adapted for this purpose, with the addition of questions relating to biographical data, and a scale to determine skills, designed for this

study. A copy of the survey is included in this thesis (Appendix 9), and details of each section noted below.

3.6.1 Adapting the Motivated Strategies for Learning Questionnaire

The focus of the questionnaire is to gather students' perceptions about their self-efficacy, self-regulated learning and skills. Measuring self-efficacy has attracted much debate in literature (Atta et al, 2013; Adams, 2004; Lane et al, 2003; Pajares, 1996) as has assessing students' learning strategies (Pintrich et al, 1990; Zimmerman, 2008) and employability skills (Raybould et al, 2005; Rothwell et al, 2007; Tomlinson, 2008). As noted in the previous chapter, tools exist which incorporate measures for self-efficacy and self-regulated learning, specifically the MSLQ, which have been used extensively in research. This instrument was adapted for this study for a number of reasons.

Firstly, the MSLQ is underpinned by a view of motivation and learning strategies as dynamic and determined by the student, which corresponds with the research proposition, informed by the literature (Dweck, 1999) that self- efficacy is not fixed but may change. Secondly, the MSLQ has been used extensively to address students' deployment of learning strategies and the impact on students of the courses they undertake (see Appendix 7 for examples).

Thirdly, the tool was designed to be used flexibly, hence its adoption for this study, and the decision to develop, and incorporate, an additional scale to address skills. In communication with Professor Bill McKeachie, (one of the MSLQ authors), consent was given to use the MSLQ and further, to adapt the tool for this research study.

A number of instruments had been considered, in particular, the New General Self Efficacy Scale but rejected, mindful of the criticism of self- efficacy measures as too general to be of value, for example in attempting to measure people's confidence in their ability to do something, without identifying what that thing is (Pajares, 1996). Similarly, Bandura (2006) notes the limited value in a

'one size fits all' measures of general self-efficacy since items are not related to a domain of functioning. The MSLQ examines students' motivation and learning strategies in relation to their programme of study. The survey is a self-report, the culmination of 5 years of research, into student motivational orientation and learning strategies.

The MSLQ comprises 15 scales. The first section comprises 31 items exploring students' goals, beliefs and anxieties, the second section examines learning strategies, including study management. Scale scores are constructed by taking the mean of items which make up the scale.

The MSQL Scales are presented in Fig. 10, noting where any have been adapted:

It was decided to incorporate the entire MSLQ into the survey designed for this study, in order to retain integrity as far as possible. Following Easterby-Smith et al (2008) and Gill et al (2010) slight changes were made to make it more relevant to the audience.

Fig 10 Motivated Strategies for Learning Questionnaire

Intrinsic Goal orientation	concerns the student's perception of engagement as a result of the desire to learn
Extrinsic Goal Orientation	relates to the student's perception of their participation as driven by external influences, for example, reward.
Task Value	explores the student's evaluation of what they are doing as oppose to why they are doing it.
Control of Learning Beliefs	relates to the perception that achievement is determined by personal endeavour
Self-Efficacy for Learning and Performance	**Assesses performance expectations and judgments about ability to accomplish a task.**
Test Anxiety	The scale relates to the impact negative thoughts and physical responses may have on performance. *Two of the five items in this scale were omitted, as irrelevant to postgraduate students.*
Elaboration	explores the ability to build connections between new information and existing knowledge.
Organisation	examines ability to collate and structure information to enhance learning.

Critical Thinking	looks at students' responses as to how they apply previous knowledge to new situations, and their critical evaluation of new material presented,
Self-Regulation	**focuses on students' perception of the process of learning and the steps they take to check and correct their learning as they progress with a task**
Rehearsal	*The scale has been omitted as the items explore very basis recitation activities which are not relevant, and may serve to undermine the perceived relevance of the survey to a postgraduate population.*
Resource Management	Addresses practical skills in managing resources
Effort Regulation	refers to perseverance.
Time and Study Environment	examines planning and focus
Peer Learning and Help Seeking	refer to collaboration strategies and the extent to which students actively seek support from colleagues and lecturers

Since the scale was developed for younger college (undergraduate) students some of the language was altered, for example the word *class* became *lecture.*

The decision to focus on two scales for analysis (highlighted above) was based on their relevance to this study. Other scales were considered and rejected as either replicating the themes already incorporated and/or worded in a way which would be irrelevant to the audience. In sum, the MSLQ is a robust tool which has been subject to considerable testing to assess validity and reliability, and as such the original form of the questionnaire has been deployed as far as is possible, though some modifications were made, appropriate to the population, and requirements of the study

3.6.2   Developing the Skills Scale

The skills scale (Fig. 11) has been informed by a critical review of the employability literature. As noted in Chapter 2 a range of studies exist into employability, albeit mainly in the undergraduate

area (Bennett, 2009; Archer et al, 2008; Knight et al, 2002). The development of the skills scale for this study is rooted in the literature. The comparison of frameworks which focuses on skills (Fig 4) presented in Chapter 2, highlight a range of skills relating to employability. These skills have been adapted and developed to inform the items for this scale. Each item in the scale below is labelled (A-J) to indicate from where in the literature (See Fig 5) it has been developed.

In order to validate the content, items are phrased to reflect the construct, thus as self-efficacy is concerned with perceived capability, then items are presented in terms of 'am' and 'can' rather than 'will' or 'may' (Bandura, 2006). Thus, this relates to the idea that programmes are created with the management criteria defined from and with support of industry. It should be noted here that within the university framework the practice is that employers are involved in the development of programmes at approval, and re-approval stage.

The MSQL items address many of the Programmes' generic management outcomes. The skills scale captures student belief more explicitly about practitioner related requirements, specifically knowledge and understanding and occupational competencies. The skills scale comprises ten items, and has been scattered through the questionnaire. In line with the original MSLQ, scale scores are constructed taking the means of items which make up the scale.

Fig.11 The Skills Scale

Skills Scale Items
A I believe this programme will increase my understanding of management theory
B I am confident I am able to write reports and assessments to the standard required for this programme
C I believe this programme will increase my knowledge about the practice of management
D I am able to persuade others to accept my opinion
E I am able to work with others to achieve an outcome which is acceptable to all
F I am good at questioning others to gather information
G Feedback I receive from the lecturer helps me improve my work
H I am good at presenting information and ideas to an audience
I I work well with other people
J After I complete an assessment /activity I think about what I could do differently to improve the result

The survey designed for this research (Appendix 9) is organised into two broad sections, the first relating to biographical data, the second the adapted MSLQ and Skills scale. The second section comprises statements to which students indicate their level of agreement, in a modified version of a Likert scale. The range of scores using this procedure was 1-7 with higher scores indicating higher perceptions (Lane et al, 2004). There is much debate around the validity and reliability of Likert's original (1932) approach of (usually) five attitude statements. Some would suggest, for example, this generates little more than ordinal data, thus lacking specific interval measurement which would lend itself to robust scientific interpretation, while others posit a view is that since data is generated based entirely on the respondents' answers this is not prone to subjective interpretation (Burns, 2000; McQueen et al, 2002).

In order to mitigate some of the concerns raised around the use of a Likert scale a number of steps were taken. Firstly, the scale is anchored with statements at either end only, to encourage the respondent to reflect on a personal strength of feeling, rather than to adopt a statement prescribed by another. Secondly, a number of statements are included in which the scoring is reversed. This discourages respondents from skimming through the questionnaire, (or rather this indicates where this may have occurred) which serves to increase reliability and validity (Burns, 2000). Thirdly, the original MSLQ questionnaire which has been adapted for this study has a 7 point scale which increases sensitivity. Reflecting on, and embracing these measures complies with the notion of designing a tool with the aims of the study in mind, which is an essential part of research (Creswell, 2003; Cohen et al, 2011).

With the basis of the survey in place attention is directed to other essential aspects of the research design process. Questionnaire design has a significant impact on the success of data collection, and subsequently the research outcomes (Anderson, 2009; McQueen et al, 2002). To this end a logical approach was adopted whereby consideration is given to a number of stages.

- Focus and Phraseology

- Form of response

- The Research Population

- Pilot and Administration

- Ethical Considerations and Safeguarding the Participants

- Analysis

(adapted from Gill & Johnson (2010) and Anderson (2009).

3.6.3   Questionnaire Focus and Phraseology

There are three areas in terms of the focus and phraseology which form part of the design process of this instrument. The adaptation of an existing tool, and the development of the skills scale have been addressed. The third element is a section relating to biographical data which is included at the start of the survey.

The first section of the survey seeks personal information, specifically unique student number, age, gender and nationality. As personal information is sensitive students are not 'forced' to answer should they choose not to, rather are given the option to refuse the information.

The student number offers a means of tracking questionnaires. As will be explained in more detail later, the survey was administered at different stages of the programme. This provides a snapshot of students at different stages of study. At the final collection, classes included some students who had completed the survey at an earlier point. They were invited to complete a second survey and the student's number would allow direct comparison of their responses, while retaining their anonymity. It should be noted that the class population is subject to fluctuation as students withdraw, are absent, may have chosen to attend an alternative session, hence there is no exact match of numbers of students in the pre and post survey responses. This was anticipated and does not have an impact on the study since the main intention is to mine the dataset as a whole, in

essence providing a snapshot of students undertaking postgraduate study. The second 'tracked' surveys form a subgroup which offers a complementary, though separate, opportunity for analysis.

Age, gender and nationality data has been requested firstly to offer an insight into the composition of postgraduate management education, following the diversity in composition, noted in the previous chapter. Secondly, the personal data will serve to illuminate where trends may exist for example is there a relationship between gender and self-efficacy, or nationality and strategies for learning, and if so the implications that has.

The survey seeks career background to gather data relating to work experience. As noted earlier, postgraduate management education attracts a diverse cohort whose work experience may range from none to extensive. As noted in the literature, employers value work experience, while programmes aim to enhance employability. There is an opportunity here to explore whether, if students have no work experience, their perceptions of their employability are enhanced during the programme.

3.6.4. Form of Response

As noted, there is a range of proposed postgraduate programmes within which to conduct the research, all incorporating management education. The cohorts comprise students from a range of disciplines and levels of experience. The original MSLQ, from which parts of this survey have been adapted, is based is paper-based. Advances in IT make on-line surveys easy to create and electronic data can be interrogated easily, however, electronically administered questionnaires are prone to low response rates (Flick, 2011; Saunders, 2009) thus, the decision was taken to conduct a physical survey in order to encourage greater participation.

3.6.5 The Research Population

The postgraduate level has been chosen for the context for this study for a number of reasons, discussed in detail earlier in this work. As noted, much of the research around employability has been undertaken within the undergraduate population (Maxwell et al, 2009; Morgan, 2014) and calls for more research into postgraduates and their employability from the 2009 Universities UK report, and echoed in the 2012 Wilson Review.

Postgraduate education forms a considerable part of the UK Higher Education provision. With postgraduate education having considerable economic significance (HESA, 2013) there is benefit in this study, from the organizational perspective, to explore ways to enhance programmes and maintain (retain) growth. In addition, employability rates are of importance to universities, and research into ways to maintain and enhance this is of benefit to HEIs.

Management education has been selected since managerial competence transcends sectors, hence the findings may be generalised across disciplines. The research population is drawn from a range of postgraduate programmes, all with a management component, delivered at two university business schools. The full breakdown of student numbers by programme is detailed in the following chapter.

The sample of students from whom data was to be collected was determined by convenience, primarily accessibility. Though convenience sampling may be criticised as lacking in rigour (Creswell, 2003; Anderson, 2009) considerable forethought was given to the sample composition. Students were drawn from two institutions, similar in some ways, for example in the level of entry requirements onto postgraduate study, but occupying different places in University league tables. The programmes from which the students were drawn were scrutinised to determine similarity (Appendices 2 and 5), to ensure the students were experiencing sufficiently similar programme aims. A range of postgraduate masters' programmes, all with themes of management was thus

included, and all students enrolled on those programmes were invited to participate. In total 450 students took part in the survey.

There is a range of 14 programmes included in the sample, across both institutions. What is evident is the overlap between programmes, for example, of the 14 listed, 10 include Business, and/or Management in the title. Where functions do stand alone, for example Marketing and Finance, the programme specifications (Appendices 1 and 3) indicate the extent to which business and /or management informs the content. Further, Organisational Behaviour is similar in content to Organisational Psychology and Business. What this does suggest is the overlap across postgraduate management programmes. This is not uncommon within Business Schools, and could be argued to be a deliberate strategy to harmonise curriculum where possible, while still giving different programmes a flavour of some specialism. There are advantages in this in terms of effective deployment of resources.

Post Graduate Programmes included in the Study

HUMAN RESOURCE MANAGEMENT AND BUSINESS	126
ORGANISATIONAL PSYCHOLOGY AND BUSINESS	5
ORGANISATIONAL BEHAVIOUR	14
WORK PSYCHOLOGY & BUSINESS	22
MANAGEMENT	39
INTERNATIONAL BUSINESS	31
MANAGEMENT AND FINANCE	39
FINANCE	5
MANAGEMENT AND INTERNATIONAL BUSINESS	62
MANAGEMENT AND MARKETING	17
HUMAN RESOURCE MANAGEMENT AND MANAGEMENT	30
MARKETING	4
BUSINESS MANAGEMENT	17

MBA (37)

All students surveyed were undertaking the full time variant of their programmes. In addition the surveyed captured small number (13) of part time students. The reasons for this are detailed later.

On examination of the descriptive data it became apparent that a significant number of students work and study simultaneously, thus the definition of a part-time student becomes increasingly blurred. As such it was decided to include them within the data set. Analysis was undertaken into the responses of this group to determine whether this would have an impact on the overall findings, which did not prove to the case. Details are presented in the following chapter.

In addition the survey captured 37 full time MBA students, all studying at Institution Two, and engaged in full time study. The full time variant of the MBA at this institution shares many similarities with the full time MSc programme, including the same entry requirements (both in terms of classification of first degree (or equivalent) and level of English Language competence). In practice, this group share a number of modules (classes) with their MSc peers. As such, it has been decided to include this group in the analysis. Comparison of the MSc and MBA is included in Appendix 5.

As noted above, students from two Business Schools were invited to take part in the study. The research study was designed as such for a number of reasons. Firstly, gathering data from two institutions offers opportunity for comparison. An examination of the institutions, and their programmes, prior to the study identified similarities and differences. The entry requirements for these programmes at both institutions are very similar. The key requirements are that a candidate must have an honours degree, or equivalent, classified at a minimum as lower second, and secondly that for a candidate for whom English is not their first language must be able to demonstrate a level of competence in oral, written and spoken English. Initially, asking students to indicate their native/first language had been considered, however, given the entry requirements are based on internationally recognised standards, it was felt this would be unnecessary for the purpose of this study. The measures and required standard of language competence are the same at both institutions. These measures are determined via a language qualification, for example, that offered by the International English language Testing System (IELTS). Thus, given the consistency in

entry requirement onto all of the programmes in the study the surveys may be viewed with confidence, as one data set, whereby the research population may be considered representative of the postgraduate management population of these Business Schools.

Where the schools differ is in the position in league tables with Institution One consistently occupying a higher position, than Institution Two (The Guardian University Guide 2013, The Complete University Guide, 2012). This suggests an opportunity for comparison in exploring whether differences exist between responses from students at the different institutions, and evaluation of that data. A second difference is in the mission and vision of each:

Institution 1:MISSION	Institution 2:MISSION
Our mission is to be the UK's leading University for business, enterprise and the professions, where original research has a positive impact on the world around us.	"To transform the prospects of individuals, employers and society through excellence in practice-based education, research and knowledge exchange."
Institution 1:VISION	**Institution 2:VISION**
Our vision is that in 2020 xxxxx will be a top research led international University renowned for developing future leaders of business and the professions.	"To be the leading university for creative and professional practice inspired by innovation and enquiry

While similar in aspiration, the only significant difference appears to be the emphasis on research in both the mission and vision in Institution One, though since by their nature statements such as these are self-publicising. Further, it is difficult to read too much into the statements and retain researcher independence, since observations may be drawn from personal knowledge.

3.6.6 Piloting the Questionnaire

The questionnaire was piloted to identify any potential issues which would impede the running of the survey. The purpose of piloting can be summarised thus:

- To determine whether the questions asked elicit the information sought

- To establish how long it takes to complete the survey

- To check whether any question is ambiguous, unclear or sensitive

- To check the layout of the survey is easy to follow

- To determine that any accompanying instructions are clear

(adapted from Anderson, 2009; Horn, 2010; Burns, 2000).

The questionnaire was piloted among a small group of postgraduate students who would not be included in the final study. As a result of the pilot there were some minor modifications in phrasing and language to eliminate potential ambiguity. As noted earlier, part of the questionnaire was adapted from the MSLQ which had been designed for an American, undergraduate population. Thus minor modifications were made to eliminate language which may have been inconsistent with that expected for the postgraduate UK audience (for example *lecturer* replaced *teache*r). Timing was noted and there was a consistency in completion time of around 20/25 minutes. This proved useful in subsequently enabling a preamble when administering the survey giving an indication as to how long the survey would take, in order to manage expectations as to time commitment.

3.6.7   Administering the Questionnaire

To create the snapshots (of students engaged on the programme), and maximise opportunities for comparison and analysis, and to gain as broad a sample as possible, groups of students were

surveyed at different points during the programme. In total four cohorts of students took part in the study, a total of 450 students. (A cohort is the term used to refer to an intake of students for example the September 2013 cohort refers to all the students who commence studies at that point in time).

One of the institutions recruits a second cohort to the postgraduate programmes during the academic year, in other words students may commence the in September, or in the following January. Without becoming overly immersed in minutiae of programme structure, what this means is the researcher was able to capture data from one group at the mid-point of their programme, and from a different group, in the same institution at the same time. Data gathered from the second institution was again from two separate groups of students, but in this case over two separate years. To clarify, the data collection is summarised below:

Fig 12 Survey data collection points:

	Data collection from students at the Start of taught Programme	Data collection from students at mid stage of taught programme	Data collection from students at the end of the taught programme
Inst 1		Jan 2010	Jun 2010
Inst 2		Jan/Feb 2010	Jul 2010
Inst 1	Oct 2010		Jun 2011
Inst 2	Jan 2010		Oct 2010

Characteristics of the data

To summarise, data was collected from students at the start of their programme (n=152) from students mid-programme (n=189) and at the end of the taught programme (n=109).

In real time terms this is a matter of months, as indicated above, and as such it was decided to focus much of the analysis for this study on looking at differences in the start and end. Thus,

i)   the entire data set comprises 450 students which offers a perspective of students engaged in postgraduate management education

ii)   data is available from students at different points within postgraduate education and these snapshots offer opportunities to determine changes in perceptions.

iii)   each snapshot may be compared in a number of ways reviewing any changes in responses from the start to the end of the programme, and any change from start to mid and mid to end.

In addition, 159 students completed a follow-up questionnaire at the end of the programme. Since students were asked to provide their unique student or examination number it is possible to track responses where students have completed two surveys responding either at the start and end of their programme or at the mid-point and end. These results can stand alone, or be compared, the latter offering an opportunity to determine any difference between the two sets of data.

During the final data collection students were invited to participate in follow up interviews to explore their perception of the extent to which their knowledge and skills, acquired during the programme, have enhanced their employability beyond graduation. While not all the students may be in work, the follow up will allow students to reflect at a distance. While aware that not all

students would wish to participate, it is believed that this additional research intervention, albeit with a potentially small number, adds a further strand to the study reflecting the views of students who have completed the programme and left university.

Ethical considerations are discussed more fully later, however, it should be noted, in the questionnaire instructions students were advised that participation is voluntary, and that the data would not be seen by any other member of the programme team, to allay potential concerns that participation is a requirement of the programme. These issues were discussed with the Programme Team at both institutions, and students were made aware at induction, by the Course Director(s) of the impending research project, and that participation would not be compulsory.

Students were invited to participate in an interview and asked to leave contact details. Of the thirty who agreed to participate, and were subsequently contacted, ten responded to the request for an interview. While this is small in relation to the entire sample surveyed (450) it represents 30% of those who agreed to take part in the interview stage.

3.6.8 Ethical Considerations

"Research, however novel its discoveries, is only of any value

if it is carried out honestly" (Walliman, 2011:42)

Here, Walliman (2011) captures an essential aspect of research, in that the manner in which it is carried out is a crucial part of the process. In undertaking this study approval was sought, and received, from the Research Ethics Committee of the awarding institution. While recognising this as an essential requirement of the doctorate, this process of securing ethical approval is informative in encouraging critical reflection of the research design. Applications for ethical approval require the researcher to address potential risk and anticipated benefit, selection and management of the participants in terms of securing their consent, safeguarding their confidentiality and anonymity and collecting and storing data. Areas of ethical consideration are

noted as follows to demonstrate ethical conduct within this study. Of considerable importance is respect for participants (Birley et al, 1998; Easterby-Smith et al, 2008; Flick, 2011). In this study students were invited to complete the questionnaire, advised that this was neither compulsory nor had a bearing on any aspect of their programme assessment. Where possible surveys were distributed and collected by the researcher, in order to maintain consistency in the introduction. Introducing the survey as a live research project aimed to inspire the audience to empathise with the process, encouraging students to recognise that this would be something they would be undertaking in the future, as part of their own studies. On a small number of occasions a third party was required to distribute and collect the surveys, this colleague fully briefed to ensure consistency. When introducing the project, the confidential nature of responses, which was stated in the preamble at the start of the survey (Appendix 9), was iterated. Students were not be asked to provide their name, but asked to provide their examination/student number. The preamble to the questionnaire explains the number is required for the purpose of analysis.

Data from the questionnaires was entered, initially into Excel, then transferred to SPSS by the researcher, and all questionnaires stored in accordance with the awarding institution(s) ethical guideline recommendations. At the final data collection point, those students who indicated they would be prepared to take part in the follow-up interview were invited to provide an e-mail contact address. Clearly, these students would be identifiable by name to the researcher, but their responses would not be able to be linked to earlier questionnaires. This retains the principle of assured anonymity. In addition, the analysis of the interviews would not make reference to names, preserving anonymity, as noted later in this chapter. A follow-up e-mail was sent immediately to those who agreed to participate both to offer thanks for continuing participation, and to check the contact details. Thirty agreed to take part in the follow-up, ten eventually participated.

3.6.9 Cleaning the data

Anderson (2009) notes it is extremely rare for no errors to have occurred. Researchers are advised to check data 'looks' right, then check a random sample of the surveys (Walliman, 2011; McQueen et al, 2002) both of which were done.

The questionnaire was inputted into excel. Where students had answered the survey a second time these responses were created separately to better manage the dataset.

3.6.10 Analysis of Questionnaires

Both Excel and SPSS have been used for analysis. Initially the data was inputted into excel while the overview of descriptive statistics was reviewed. The dataset was imported into the software Statistical Package for Social Sciences (SPSS) Version 18. SPSS was chosen as it provides the researcher with the means to interrogate and present a high volume of data (Collis & Hussey, 2009; Walliman, 2011). One of the reasons for this usage of different tools is the intention to maintain a critical perspective of technology in research. There is a danger in technology becoming the driver, rather than a tool within the process and worth noting that SPSS is not is a "magic oven that can miraculously transform garbage input into haute cuisine output" (Colman & Pulford, 2008:2).

Descriptive statistics and cross tabulations were used to probe the research population. Using descriptive statistics elicits the emergence of patterns which can be difficult to spot when reviewing raw data (Collis et al, 2009; Saunders et al, 2009).

To determine reliability Cronbach's Alpha was calculated. This test is used extensively to determine internal consistency (Easterby-Smith et al, 2012; Antonius, 2013; Salkind, 2008). The coefficient was calculated to capture all surveys included in the project, and details, relating to

each scale are presented in the following chapter. Further, scales were tested to determine normal distribution, details for each scale are presented in the following chapter.

Data was tested to determine whether parametric or non-parametric test were appropriate and subsequently t tests or ANOVA used to explore differences between groups or the corresponding non-parametric equivalents (notably Mann-Whitney test and Kruskal-Wallis). Details are presented with the findings.

Analysis was undertaken to determine whether a relationship exists between skills and self-regulated learning and self-efficacy, and if so, the direction and strength of the relationship. Further, exploratory factor analysis was undertaken to interrogate the underlying structure of each of the three scales, to expose any patterns of correlations of the items within each (Field, 2013; Brace et al, 2012). The method of factor analysis employed was Principal Component Analysis with oblique rotation. The method of factor rotation was selected assuming the underlying factors to be related (Antonius, 2013; Brace, 2012) and following the argument posited by Field (2013) that social research involving psychological constructs by their very nature are correlated with other psychological constructs. In this study the purpose of the Principal Component Analysis was to explore whether there exists single or multiple groupings within each scale. In order to examine the impact of variables on each scale logistic regression was undertaken. This type of analysis offers an insight into the impact of independent variables on the dependent variable (Cohen et al, 2011; Antonius, 2013) whether, for example self-efficacy, measured in terms of increased or not increased following the taught programme can be predicted based on gender, work experience, institution or whether a student is international or a home student. These independent variables, which have been informed by the literature review, in particular noting the diverse nature of the postgraduate programme, as detailed in the trends described in section 2.3.

3.7   Interview Design Overview

It could be argued that the robustness of research gathered using qualitative methods is questionable when tested against the concepts of reliability and validity (Bryman, 2004). Reliability, relating to the likelihood of replication of research findings, and validity, relating to whether the research is a true measure of what is being investigated, seem at odds with qualitative research. This would appear to miss the point, or rather *is* the point. The tests of rigour have been created within the context of, and use the language of, natural science, thus to judge qualitative research by exact criteria which is better applied to quantitative research is inappropriate, and vice versa (Ritchie & Lewis, 2003). Mindful of this caution, the data collection methods, the tool by which it is analysed, and the participant care have been designed for purpose, and detailed below.

3.7.1   Interview - design

The intention in this phase of the study is to gather data following the survey, adding richness and depth to the research. It was important to adhere to the same conventions in terms of safeguarding the participants, giving due consideration to the analysis and ensuring the data added to the project, and was not merely an add-on.   Reason for using qualitative – used to explore details – thoughts processes and feelings, probe and develop from the themes emerging from the literature (Sharp et al, 1996; Creswell, 2003).

Literature suggests wide variation in terms of the type of interview a researcher may conduct, ranging from open conversational style to a rigid structured approach (Horn, 2009; Bryman, 2001).

Fig 13 Advantages and Disadvantages of Different Types of Interview

Type of interview	Characteristics	Advantages	disadvantages
Unstructured	Non-standardised Informal, questions flow as conversation. Frequently used in exploratory research	Rich and unforeseen data may emerge.	Less systematic, more difficult to coordinate and analyse
Semi-structured	A question structure is outlined in advance, with follow-up prompt questions prepared.	Coverage of key issues, the researcher may guide the interviewee. Information generated less likely to be superficial and general.	Time consuming. May lack consistency in variation of follow-up questions
Structured	Standardised. Pre-set questions administered in a standard order	Easier to administer and analyse	Can be lacking in richness of data. Adherence to scheduled questions may fracture the discussion.

(Adapted from Horn, 2009; Walliman, 2011; Anderson, 2009).

Interviews can be further categorised in terms of the type of discourse the researcher is looking to elicit from the participant. This could be narrative, where the participant is encouraged to recount

aspects of their personal history, or more standardised responses determined by an interview structure, or a combination of the two (Anderson, 2009, Birley et al, 1998: Flick, 2011).

The research aim is to gather information from the participants about their experiences during the programme, exploring ideas which have emerged through the literature, and the initial survey findings looking, in particular at the particular aspects of the programme which have had an impact in the perception of the student.

Thus, a semi-structured interview was designed focussed around the themes of skills, self-efficacy and learning, with prompting questions to encourage students' narrative of their particular experience. In doing so, participants were encouraged to reflect on their experience of postgraduate education, enabling consideration of where it has impact, and where/whether it meets its aims. As such the principles of mixed methods are being followed in that each method adds something rather than simply replicates (Creswell, 2003).

Informed by literature a set of guidelines have been followed in designing the interview:

- Each main section, of which there are five, deals with a specific theme, though all five interlock. This encouraged participants to focus on one idea at a time, while within a framework of their overall experience. The 5 sections comprise a preamble/overview, the 3 scales – skills, self-regulated learning and self-efficacy, and a final section for additional comments (see appendix 10 for the interview structure).

- Main questions were open, and framed positively.

- Follow-up questions encouraged reflection.

- The sections were similar in structure and pattern

- The preamble introduced the structure in order to familiarise the participant with what may be expected.

- Language was deliberately constructed to avoid colloquialisms and unnecessary jargon, mindful of the internationalisation of the population. Some language specific to

those with experience of education was included to establish the context and to create rapport with the students and build confidence in their perception of the knowledge of the researcher.

- Leading questions were avoided

(adapted from Easterby-Smith et al, 2008; McQueen et al, 2002).

In this way it proved possible to combine the coverage offered by preparation of an interview schedule, with the free-ranging dialogue of a conversation. Further, mindful of the conventions of interviewing, this approach captured the opportunity to reflect responses back to the participant which serves to demonstrate to the participant an interest and engagement cementing rapport (Anderson, 2009; Winstanley, 2005). In addition care was taken to introduce the interview, reassure students of confidentiality and re-establish the purpose of the study, given the time elapsed since completion of the survey.

3.7.2 Conducting telephone interviews

Telephone interviews were selected as the follow up method to build on the relationship which - it was hoped - participants felt towards the project, and the researcher. As noted earlier, students were assured of continuing anonymity, hence the decision not to ask students for their student number (to enable tracking) as it was felt this would compromise earlier assurances.

Choice of telephone interviews was considered early in the research, determined to some extent by the potential geographical dispersion of the participants. This proved well-founded since, as an example, one of the participants was working in Ghana when the follow-up took place. There are advantages and disadvantages of using the telephone for interviews. The major disadvantage is the lack of opportunity for non-verbal cues- nodding, facial expressions, body-language – which can facilitate conversation and rapport (Winstanley, 2005; Weightman, 2004). An alternative

perspective is that the remoteness of the telephone may be advantageous in removing the interviewer's subconscious non- verbal cues which have the potential to influence the participants' responses, (Frey et al, 1995). An alternative view is offered by Anderson (2009) that trust between interviewer and interviewee is key to effective interviews, and the telephone is too impersonal a medium to effect that relationship.

On reflection, it was concluded that this would be mitigated since this was not a 'cold-call', rather participants were already engaged in the project, had, in all but a few cases met the researcher in person at the survey collection, and had received a number of e-mails in the intervening period. As such it was considered an appropriate approach.

Further, the telephone has some of the advantages of the traditional interview in that this is a conversation, an opportunity to identify nuances in conversation, to follow-up, to clarify, reflect and build rapport (Winstanley, 2005) and, is immediate, which can facilitate the research process. Thus, provided the researcher has established a relationship in advance the telephone can prove an effective tool (Easterby-Smith et al, 2008; Saunders et al, 2009) which has proved the case in this study.

3.7.3   Contacting participants

As noted earlier, at the survey stage students were asked whether they would participate in a follow-up interview. At that stage students were advised these interviews would take place by telephone to encourage students to see the feasibility of this. It had been felt that simply to invite students to a follow-up interview would result in some automatically dismissing the request as unfeasible. Those who agreed were asked to provide an e-mail contact. Asking students for an address may have appeared more invasive, and potentially less likely to remain a constant. It was considered an e-mail would be more likely to bear fruit in terms of maintaining contact. 30 students agreed to participate. Mindful of building rapport (Walliman, 2011; Taylor, 2002) all were

contacted within one week to thank them for agreeing to participate, to check the e-mail address, to ask that where the e-mail address changed if at all possible could the students advise the researcher (a long shot) and to establish the electronic relationship.

On completion of the programme, the thirty were contacted to arrange the follow-up interview. Completion of the programme is approximately 4-6 months after the final survey data collection. The time varies slightly by institution, however the overall remains the same idea. The survey for the main data collection reflects the taught element of the programme, while the follow up captures students' reflections following their dissertation element, and on completion of all the assessment.

Of the 30 contacted, 10 responded. Of the remainder, on some occasions the e-mail address 'bounced back' which meant it was not possible to establish contact. Where there was no response, a second e-mail was sent to encourage a reply. A nil response to this was considered a no. Mindful of the need to treat participants sensitively no further attempts were made to contact these students. Thus, it may be claimed that those who did respond were clear as to the aims of the project, having provided written consent, in electronic form. Further, the 10 respondents were fulsome in their replies, and expressed keenness to take part in the follow-up. One student noted a willingness to engage given the experience they had had in securing participant involvement in their research project, and this notion of empathy is one which emerged during the interviews, to be explored later in the analysis.

Participants were e-mailed to invite them to take part in the interview, advised in a brief written preamble of the main points to be explored, advised the interview was not anticipated to take longer than 20-30 minutes and asked to suggest suitable times when the researcher could contact them. Students were asked to provide a contact telephone number. Permission was also sought to record the interview. Of the 10, all responded positively. There was concern that the mention of recording the conversation at this stage may discourage participation, but felt it would be inappropriate not to raise this.

Of the 10 participants, 5 were from institution 1, 5 from the second institution (see Fig. 51). Following best practice in preparation for interviews, a suitable venue to conduct the interviews was identified, one where there would be no interruptions, and where there would be quiet (Weightman, 2004; Taylor, 2002). One of the difficulties proved in finding a suitable time for those students who were in work, and for the students who were now in a different time-zone.

Best practice in interview technique as suggested by the literature (Taylor,2002; McQueen et al 2002) was supplemented in that the researcher was able to draw on personal industrial experience as a recruiter, and able to use managerial experience of the appraisal process to conduct the interviews. Both of these activities require an ability to listen, to probe, to use neutral language where necessary and to build rapport. Interviewing is not an innate skill but one which needs some development and practise (Frey et al, 1995; Bourque and Fielder, 2003).

As part of the introduction, participants were reminded of the nature of the study, their permission to record the interview was checked, and students were asked whether they were happy to proceed. Following the recording of the interviews, the interviews were transcribed ready for analysis.

3.7.4   Analysing the qualitative data

As noted above, the semi-structured interview was intended to elicit personal narrative from the participant, focussed around specific themes. Thus, while there would be a framework to structure the discussion, the responses themselves would require analysis to arrange the ensuing "awkward mass of information" (Walliman, 2011:133) into something meaningful.

It has been suggested that there are two fundamental approaches to analysing qualitative data, these being deductive or inductive, the former whereby the researcher imposes a framework to guide the analysis, the latter where data is analysed without constraint (Burnard et al, 2008). NVIVO 10 was used as the analytical tool. While Cohen et al (2011) posit the lack of a single accepted method of analysing qualitative data, they note what is important is that the analysis be 'fit for purpose'.

Gibbs (2002) and Colman et al (2008) advance this in that technological developments, which offer a myriad of exciting computer packages, should be recognised as tools to aid the researcher, rather than capable of the analysis itself.

It could be argued that NVIVO is an unnecessarily powerful tool to use given the relatively small number of interviews. However, what NVIVO does offer is an opportunity to manipulate and review data relatively simply (Gibbs, 2002). There has been a backlash against the use of qualitative analysis software, for the reasons noted above, with critics suggesting it distances researchers from their data, and encourages a mechanistic approach to analysis (Collis et al, 2009, Anderson, 2009). To mitigate this, armed with this knowledge, interviews were transcribed verbatim. Consideration had been given to outsourcing this task, but the idea rejected for a number of reasons. Firstly, as noted, there is the danger of over-embracing technology to the detriment of 'owning' the analysis. Secondly, employing a transcriber, though saving time, deprives the researcher of an opportunity to familiarise themselves with the data (Saunders et al, 2009; Birley et al, 1998). Creating MP3 files, and playing these via a personal MP3 player, offered an opportunity to carry the data around while getting an initial feel for students' voices, before the act of transcribing began. Further, it was felt that being able to reassure participants at the start of the interview that the recording was to be transcribed personally, would reinforce both rapport and confidence in the relationship.

The interview transcripts were imported into NVIVO and a coding framework was created based on the five main sections within the interview, (Appendix 9) these being:

- Introduction/overview of employability

- Employability and the postgraduate programme

- Learning and teaching at postgraduate level

- Self-efficacy and the programme

- Participants' views of postgraduate education

Themes explored in the interviews related to employability, drawing from the research question, and participants were invited to consider where, if at all, the programme had addressed or impacted on these concepts

3.8   Chapter Summary

This chapter has presented the method by which the research is to be undertaken. The chapter presents a critique of the research philosophy which provides context for the sequential mixed methods approach adopted. The chapter presents a series of hypotheses, the purpose of which is to crystallise the investigation (Sarantakos, 2005). A survey and interview are to be employed. Details of both methods have been presented, including design, analysis considerations, robustness of the instruments designed and ethical considerations to protect the participants. The findings from the data collection are presented in the following chapter.

CHAPTER FOUR   FINDINGS

4.1   Introduction to the Chapter

This research project has used mixed methods of data collection to address the research objectives, raised in Chapter Two. Details of the methods, and underpinning philosophy have been described in Chapter Three. This chapter presents the findings from the research. These findings are then analysed and discussed in the following chapter. The separation of these two sections – findings and discussion – into separate chapters is to better structure the thesis, enabling the reader to absorb the data, before implications and conclusions are extended.

Findings are drawn from the survey undertaken, and then from the follow-up interviews. The findings are presented in stages, firstly a description of the participants of the data set, secondly, the quantitative data from the survey, and lastly the qualitative findings which are drawn from the interviews. Findings are summarised to capture key points, before moving on to the discussion in Chapter 5.

4.2   Presentation of Findings

The findings are presented chronologically, in the order the phases occurred, firstly the survey data and statistical analysis, secondly, the findings from the semi-structured interviews.

4.2.1   Survey Findings

The findings from the survey are presented broadly into the following sections.

4.2.1.1 Descriptive Analysis

Firstly, descriptive analysis details the characteristics of the data set. The purpose is to provide an overview of the students who took part in this study, and a context for subsequent analysis. The section analyses the number of participants, and the biographical data including age, gender, programme, nationality, and level and type of work experience. These variables are considered relevant for a number of reasons. Firstly, as noted in the literature review, the postgraduate management market draws from a wide range of pools in terms of the composition of the population, yet a one-size – fits – all programme pervades, as evidenced in the similarity in programme content (Appendices 1 & 3).

4.2.1.2 Overview of Skills, Self-Regulated Learning and Self-Efficacy

The second section moves to the three scales and item statistics, and includes the tests which have been applied to determine the robustness of the data. This part of the survey was that developed from the MSLQ, described in the previous chapter, and the skills scale designed for this study.

4.2.1.3 Trends within Scales during the programme

This section looking at the survey findings comparing the responses of students at different points in the programme. Data is available from start, mid-point and end of the taught programme. Examination of the scales' means gives an indication as to changes in perceptions investigated. As noted in the previous chapter, data has been collected to enable comparisons of snapshots of students engaged in their programme at different points in time, and to provide an overview of a single dataset of students engaged in postgraduate education.

In addition, there are a number of matched samples, where students who have completed two

surveys, at different points in the programme may be tracked by means of their student number, though the bulk of the analysis is focussed on the main dataset.

4.2.1.4 Differences between Groups within the Student Population.

This section mines the data in terms of differences within the population looking at the impact of gender, nationality, work experience and institution on employability, and in detail on skills, self-regulated learning and self-efficacy.

Analysis into potential differences has been undertaken in two ways, firstly looking at the 450 participants as a whole- since they represent a snapshot of postgraduate students. Secondly, the data has been interrogated to identify whether there are differences between these subgroups at the start of the programme, and on completion of the taught programme, in other words to determine changes.

4.2.1.5 Correlation between scales

The final section which looks at the survey seeks to determine whether any correlation exists relating to the constructs of skills, self- regulated learning and self-efficacy.

4.2.2 Interview Findings

Ten students participated in the interview phase of the study, from a group of thirty who originally agreed to take part. The findings from the interviews are presented structured around the framework of the interview design since this relates to the three main areas under discussion- skills, self-regulation of learning and self-efficacy. This phase of the study gives an insight into the

essential and personal thoughts of the students which a survey cannot expose, thus the findings are presented using verbatim quotations to reflect the students' voice.

4.2.3   Summary of Findings

Given the extent of the data presented findings have been summarised and framed them around the research hypotheses. This serves to clarify the key points within the context of the research, and informs the discussion to follow in the following chapter.

4.3. Descriptive Analysis

The first section of the survey sought biographical data, asking students about their background, in particular looking at age, gender, nationality and work experience. In addition, a comparison of responses from the two institutions in included. Though very similar in entry requirements, the two differ, as noted in the previous chapter, and though the programmes are similar it would be of value to explore whether the two offer a different experience in terms of increasing perceptions of employability, to determine elements of good practice.

This section of the analysis presents those findings, and offers an insight into the composition of the survey population.

4.3.1   Total Number of Student Participants

In total 450 students participated in the research project.

Fig.14 Total Number of Participants
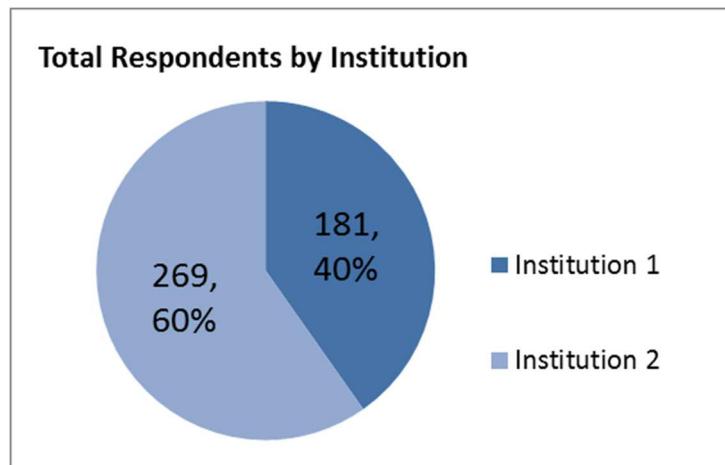
A small number of surveys were considered 'spoiled', and thus excluded, where students had failed to complete any questions on a single page. It was assumed that these students had not intended deliberately to sabotage their response since all other pages were complete which was further reassurance that participation was voluntary and readily given. One student failed to complete any part of the survey and submitted a blank questionnaire. He gave his reason as one of lack of understanding as to why he was being asked to complete the questionnaire. Since all students had been told participation was voluntary, no student removed themselves, and no other student failed to participate at all, it may be concluded that steps taken to safeguard participants in terms of securing voluntary engagement were successful, in line with ethical considerations outlined in Chapter 3. Appropriate statistical tests to assess the validity and reliability of responses were applied, discussed later in this section.

4.3.2 Gender

Fig 15 Gender Distribution-all students
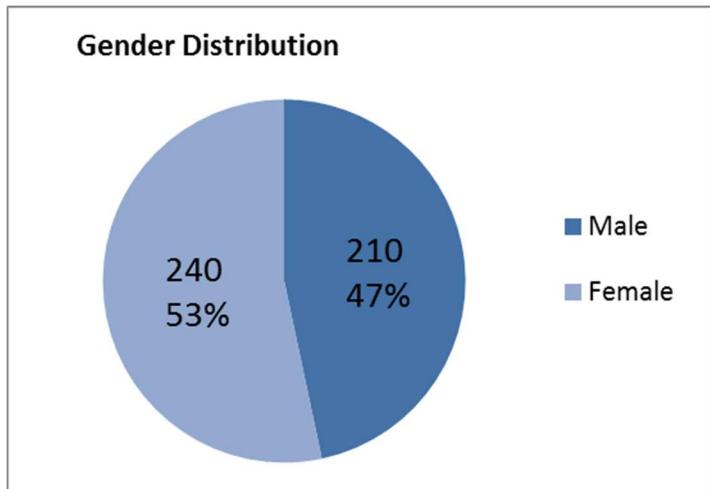
The gender breakdown shows a slightly higher proportion of females. Statistics from the HESA for 2009/10which relates to the data collection timeframe, shows a similar picture with a slightly higher percentage of full time postgraduate females than males (49.3%:50.7%). This suggests the sample population is representative of the general population of postgraduate students for this study.

4.3.3. Age

Fig.16 Age Distribution – all students
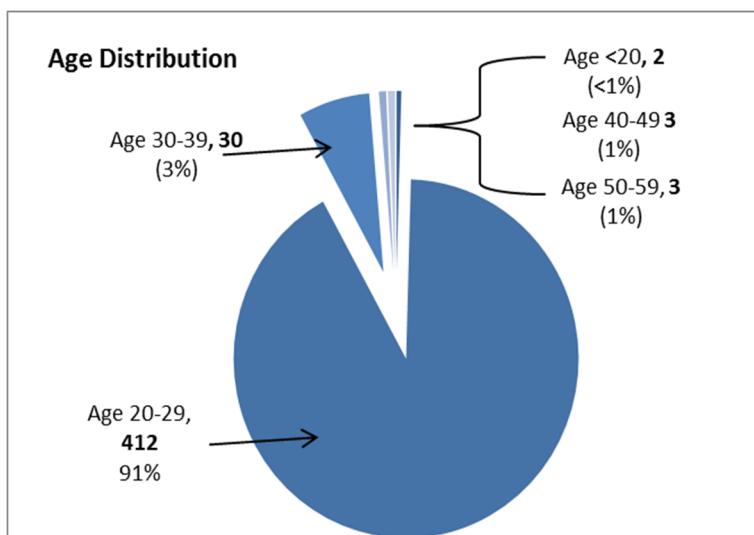
What the breakdown in age of the total population shows is the overwhelming proportion (91.5%) of students in their twenties. This is higher than that of the general postgraduate full time population which shows 77% to be in this age bracket (HESA, 2011). This still suggests students in their twenties dominate full time postgraduate education. On reflection, this may be considered a limitation of the study, or rather, an opportunity for further research, since it may be that a student at 20 may have significantly different world experience than once at 29, simply in terms of the proportion of life spent in the workplace.

Fig 17: Comparison of Age Group and Gender
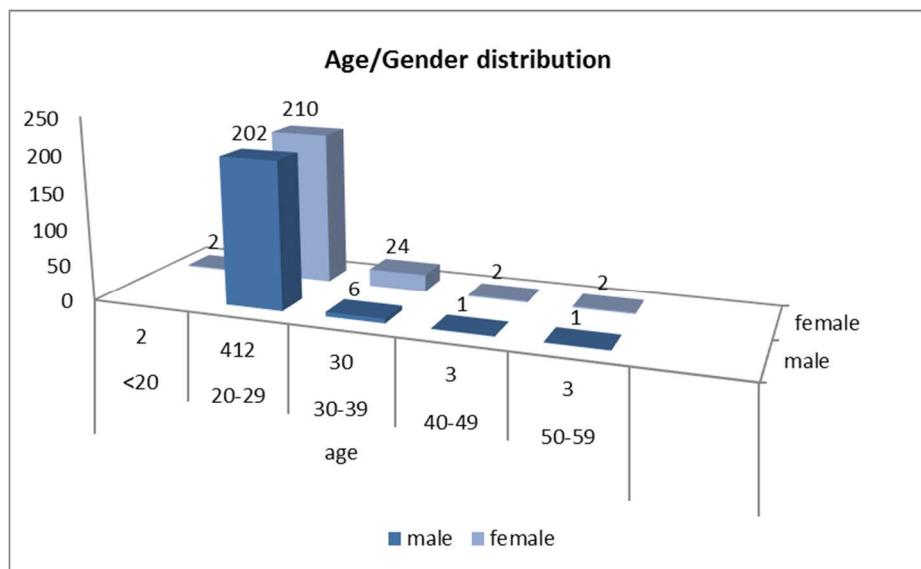
The age and gender distribution is evenly balanced, other than in the thirties age group where female students outweigh males by approximately 4:1. Overall this is representative of the student population of students engaged in UK higher education.

4.3.4. Programme and Mode of Study

	Mode		**Total Students**
Programme	Full time	Part time	
MSc	400	13	413
MBA	37		37
			450

As noted in section 3.6, the majority of students are undertaking a full time MSc. Some analysis of the small number who vary from this mode is presented at the end of this chapter.

4.3.5. Nationality

Fig 18 Nationality – all students
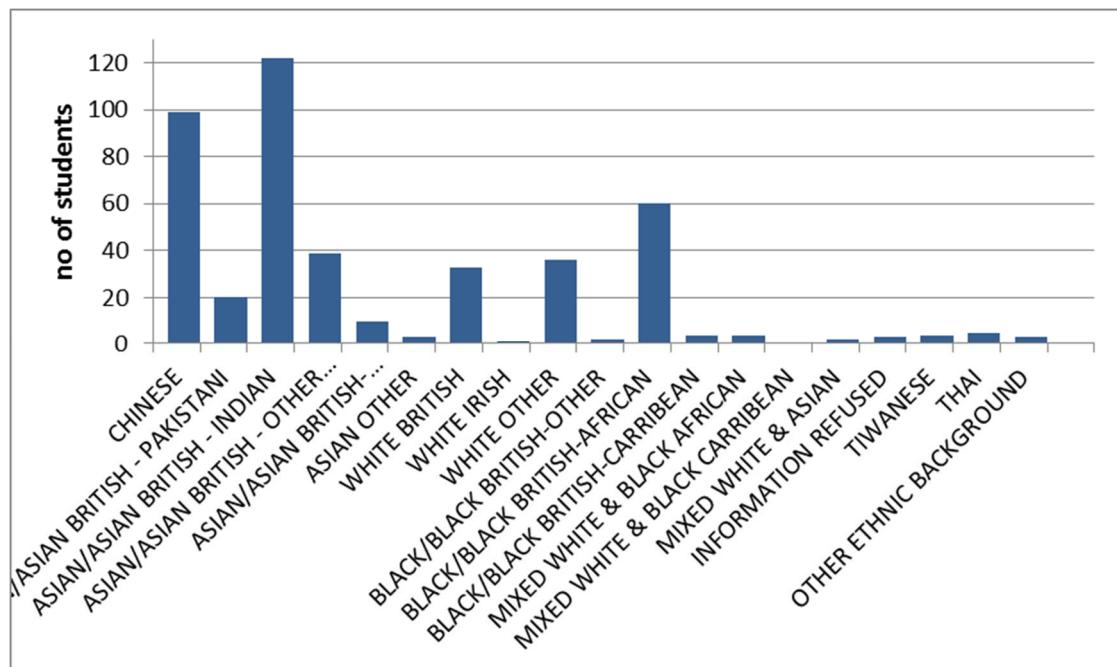
Fig. 18 shows the complete profile of the nationality distribution across all 450 respondents. In order to clarify presentation of the findings, given some of the very small numbers in some cases, nationalities were re-coded for the purpose of analysis, into six categories, these being White, Mixed, Asian/Asian British, Black/Black British, Chinese and Other. These six categories are those used to classify ethnicity in the (UK) national census. This coding framework, used in the 2011 national census, was adopted given that there exists extensive research into developing and testing the census questionnaire (Saunders et al, 2009). Dictionary definitions distinguish between nationality and ethnicity in that the former relates to belonging to a nation, the latter defined in terms of belonging to a social group with a common cultural or national tradition or a particular race (OED, 2013). Although in the census the categories are presented as relating to ethnicity, 'British' is a statement about nationality not ethnicity (Breakwell et al, 2006). Thus the use of these six categories is an appropriate one to simplify the range of nationalities described above. For the purpose of this study, to simplify presentation of findings, the phrase nationality is used throughout, since it is that information which underpins the categories here.

Moreover, in designing research best practice is to step back and reflect on the purpose of what is being asked (Walliman, 2011; Bryman, 2001; Burns, 2000). One of the trends in postgraduate education is in its international make-up, as discussed in the Chapter Two. As such this study seeks to explore the composition of the research population here, since this information, coupled with that as to whether the student is categorised as home or international gives an insight into language and cultural background, as noted below.

Fig. 19 Nationality Composite Groups
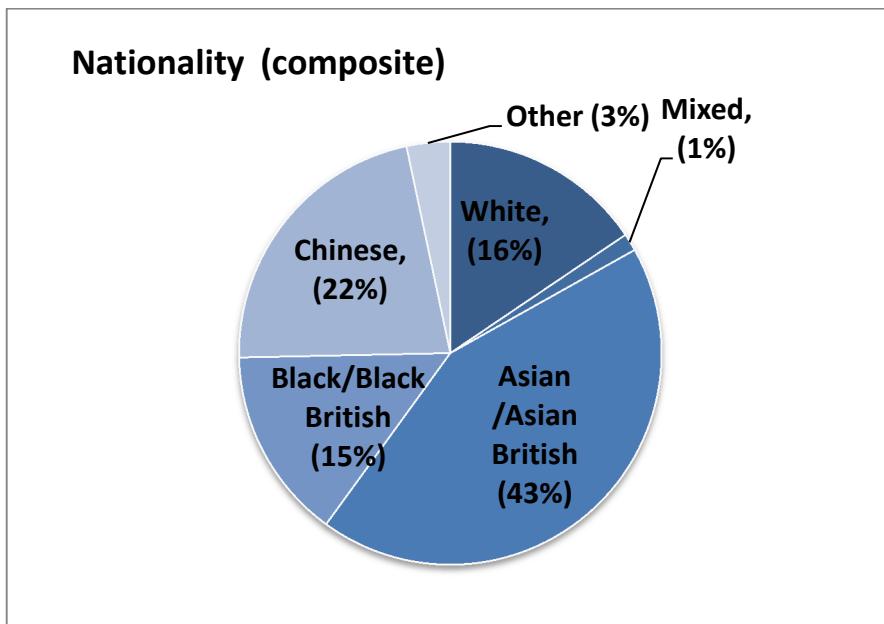
What this shows is a picture of the diversity of the postgraduate population. Statistics from the HESA for the period 2009/10 show a similar picture in that 68% of all full-time taught postgraduate students were from outside the UK., suggesting this sample is representative of the general (full time/postgraduate) population. In addition, it is possible to infer internationalisation of the postgraduate population from an additional measure, that of whether the students are classified as Home/European Union or International.

Fig 20   Home, European Union and International Student Numbers
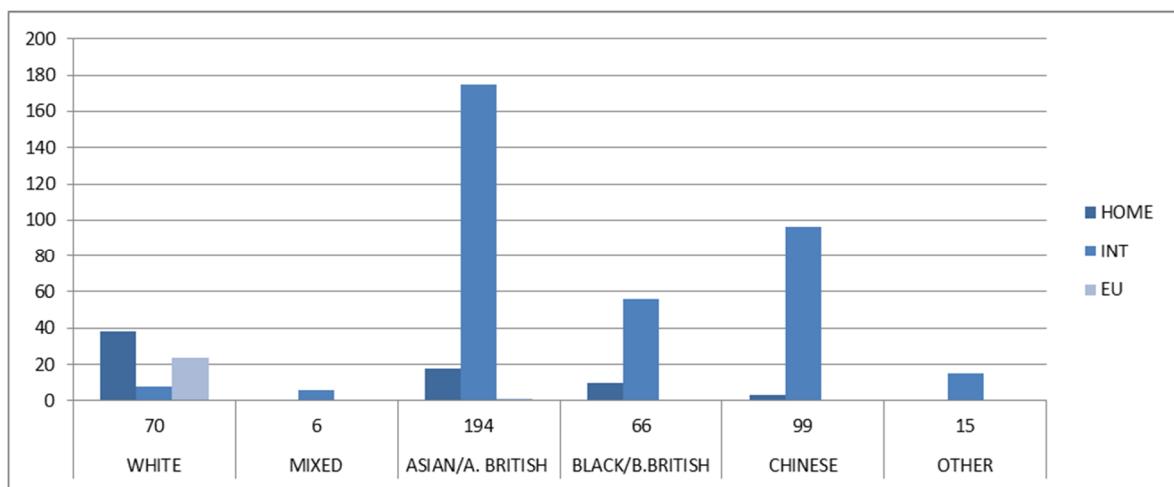
Both institutions in the survey secure biographical data in relation to nationality, then further categorise students as to whether they may be considered Home (or Home/European Union) or International which has implications for funding, in terms of what students are charged. There is much on-going debate as to the funding of postgraduate programmes and their sustainability (Wilson, 2012) which has implications given the internationalisation of the postgraduate sector, as discussed earlier (Section 2.3).

While it is not within the scope of this project to explore culture in detail, what is relevant to this research is that by analysing this element of data it is possible to infer the student's home country, which suggests whether the student has English as a first language. For example, analysis of the students who give Asian/Asian British as their nationality indicates that 90% are international, 10% Home which suggests a high proportion for whom English may not be their first language. Similarly, of the Chinese students, 97% are international, which suggests the same thing. Clearly, this is not an exact measure, in that some students may have relocated to a country classed as international and no detailed data exists as to education background which may suggest years studying languages. More importantly, all students must meet the entry requirement of the programme, detailed in Chapter 3, relating to the level of English needed. However, this element of

analysis is highly suggestive of a diverse population of students with widely different backgrounds, levels of language (albeit meeting the minimum standard required) and cultural experience. As such there may be implications for the programme makers.

4.3.6. Work Experience

Of the students surveyed approximately half have worked full time, just over a quarter have no work experience, and the remainder have worked part time.

Work experience Full time	Work experience Part time	No Work Experience	Total
216	113	121	450

The overall picture of work experience is captured in Fig. 21. Of the total population, 73% claim to have some work experience, of these 48% males and 51% females. Of the students who claim to have no work experience 42% are male and 57% females. Thus, the data reveals a higher proportion of females with no work experience than males, while the proportion of males to females with some work experience is more evenly distributed.

Fig. 21 Work Experience, Nationality and Gender
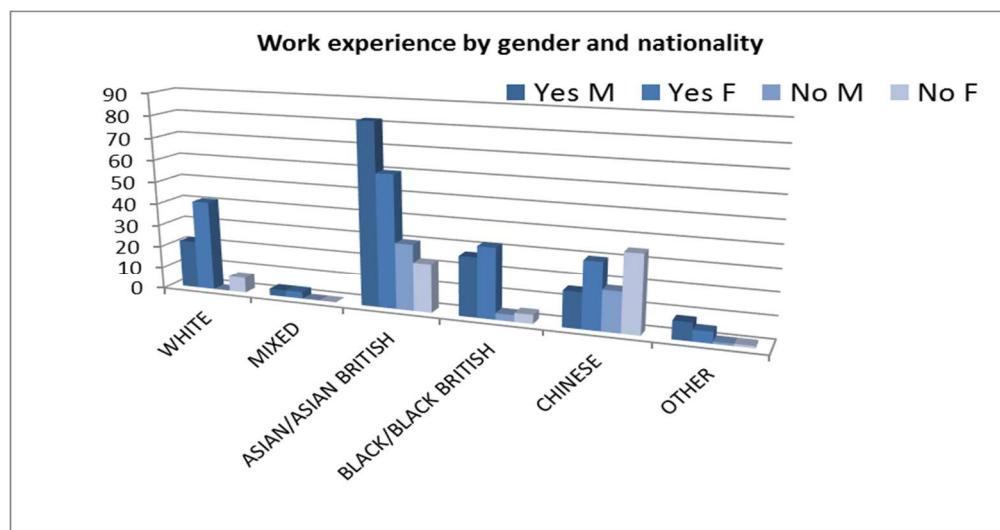
Having some experience of work is a crude measure since what that means can vary considerably. The survey drills deeper into this area, given the nature of the study and included a number of questions around work to gain a clearer insight into the nature of work students have undertaken. Thus, the survey explores duration, mode and type of role, which may be viewed in conjunction with key characteristics to determine whether any notable themes emerge.

4.3.6.1 Changes in employment status

As noted, some students were surveyed a second time. Where a student was participating in the research project for the second time, responding to the same question "*do you have any work experience*" has enabled changes in employment status to be determined for the group whose answers are tracked. This is clearer to see, summarised in the following chart:

Students participating in the survey for a second time	Number whose employment status changed 'yes' to 'no'	Number whose employment status changed 'no' to 'yes'
159	32	5

What this suggests is that while engaged on a postgraduate programme, more are likely to cease work, than to start. The students who started work during their programme described their roles variously as 'teacher', 'telesales', 'manager trainee', 'salesman' and 'inventory auditor'. Thus, this suggests roles which are more than low level – though it should be noted that this is the students' description of their job/job title.

However, while it is tempting to make assumptions about students relinquishing work to focus on their studies, the data is this instance is too sketchy, and it may be too contrived to make much of this without further information, (though there is some reference to this theme in the interview

findings, later in this chapter). What this does suggest is an opportunity for further research since the literature has shown the value placed on work experience by employers.

Further, it is possible to look in more detail at the picture of work experience of the research population as a whole, since the data shows that a high proportion of students work throughout their programme.

It should be noted that questions relating to work experience were worded 'do you have any work experience', with subsequent questions asking students to describe their current or most recent job. The ethics of probing this were considered in the research design hence the question 'are you currently in employment', was avoided. The reason for this was to avoid any potential anxiety on behalf of participants who may have been in receipt of financial benefits or grants, from whatever source, which may have precluded their right to work. Equally, some students may have felt such a question intrusive, given that the majority were engaged in full time education, hence social desirability may have distorted an honest response (Weightman, 2004; Taylor, 2001).In other words, despite assurances of anonymity students may have felt it would be seem to be wrong to be working and studying simultaneously, when engaged on a full time programme.

Thus, when examining the survey responses, the assumption cannot be made that a student who responds in the affirmative is currently working, rather that they have some work experience.

One of the ways to review the data around work experience is by looking at the breakdown by gender, and by nationality. It makes sense to explore the working patterns of the nationality groups since a student population dominated by those mainly with, or mainly without, work experience may have an impact on perceptions of employability of the cohort.

4.3.6.2 Nationality and Work Experience

Fig. 21 presents a breakdown of nationality groups by work experience and gender. Of the total population of the nationality groups approximately three quarters have full or part time work

experience. This may be further examined to establish differences within nationality groups, and gender.

All nationality groups, other than the Chinese, reflect this trend of a higher proportion of students having work experience than not. The breakdown among Chinese students shows 46.5% of the Chinese students have some work experience, while 53.5% do not. This compares with 73% of the Asian/Asian British having some work experience, while 27% not. Leaving out the very small groups (mixed and other) the remaining nationality groupings show even higher proportions of the those with work experience compared with those who have none, specifically, Black/Black British 89% with and 11% without and White 90% with and 10% without.

Breaking this down further, Fig 21 depicts the gender/nationality/work experience split. Earlier analysis shows the gender split within the Chinese group to be 66% female and 34% male. Within the Chinese group, of the 46.5% with work experience 65% are female and 35% male, while of the remaining those 53.5% with no work experience 66% are female and 34% male. Thus, the data shows a higher proportion of females than males with work experience among the Chinese students. Among the other nationality groups, of the Black/Black British students with work experience 46% are male and 54% are female, which reflects the overall gender distribution. The White group shows of the 90% with work experience, 35% of these are male. When compared with the overall gender distribution within this group (69% female: 31% male) this shows a very slightly higher proportion of working males than would be expected given the gender distribution of the whole group.

The only group which has a higher proportion of males to females (58% male, 42% female) is the Asian/Asian British category. Within this nationality group, of the 73% with work experience, 58% of these are male, which reflects the gender distribution within the group as a whole. What this analysis shows overall is that the gender distribution within a particular nationality group broadly reflects that of work experience from the perspective of gender.

4.3.6.3 Duration and Type of Work Experience

As noted, the survey questions relating to work experience initially start with a simple 'yes/no'. Clearly this cannot express the range of what that may mean. The survey solicited information regards the duration and mode of experience, as well as asking students for the job title. The latter saw a wide range of titles. In some cases students had noted a function rather than a job title, for example 'finance'. To further complicate analysis some responses were vague 'manager', some obscure 'head of talent' and some very precise with little clue in the title 'SAP SD Consultant'. In addition, some responses identified a place of work 'garage' and 'pizza counter'. In order to make some sense of the data job titles were grouped as far as possible into recognisable sectors/functional areas:

Groupings of job titles/functions	
	Including
Administration	
Advertising	Marketing / PR
Voluntary work / Charity	
Education	Tutor / teacher
Engineering	Manufacturing / production
Financial	Insurance / statistics / accountancy
Management	
Creative arts	
Healthcare	Nursing / carers
HR	
leisure	Sport / tourism
Retail	Buying / selling / shop assistant
Transport	Logistics

In order to gain an insight into the extent of work experience, the duration and mode of work experience (see Fig 22) was compared, since it could be reasonably assumed that someone working in administration, part-time for less than 6 months would have less experience of work than someone working in administration full-time for the same period. The survey asked students to

note whether this was their current/most recent job to avoid losing valuable data around work experience, since these are, in the main full time students who may have given up work to enrol on the programme.

Fig. 22 Mode and Duration of Work Experience.
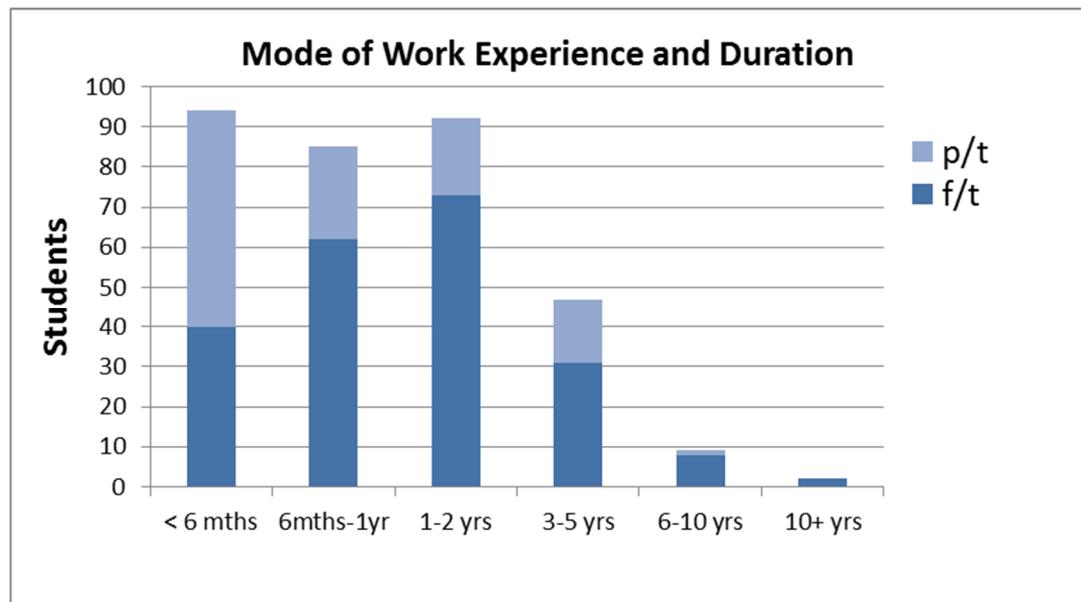
4.4　Skills, Self-Regulated Learning and Self-Efficacy Scales

This section moves to the detail of scale and item statistics, and includes the tests which have been applied to determine the robustness of the data. This part of the survey was that mainly developed from the MSLQ, described in the previous chapter, and includes the skills scale designed for this study. The scales examined are those which relate to the research objectives defined in Chapter 2. This analysis includes all students in the sample n=450.

	N	Minimum	Maximum	Mean	Std. Deviation	Items	Cronbach's Alpha Coefficient
Skills	450	3.13	6.87	5.0478	0.71191	30	0.91

These results show the permutations of the skills scale range from acceptable ($.8 > \alpha \geq .7$) to good ($.9 > \alpha \geq .8$) (George & Mallery, 2003)

4.4.1 Skills Scale Overview

The skills scale has been created for this study, as noted in the methodology chapter. The scale has been informed by literature, noting the predominance of work around undergraduate employability (Maxwell et al, 2009; Rothwell, 2009) and drawn from a range of employability frameworks including those of Archer et al, 2008; Lowden et al, 2011 and Cranmer, 2006).

Fig 24 gives the summary of scale analysis. This is the overview of the skills scale based on analysis of the 450 participants. The standard deviation gives a general measure of variability between items as follows:

Skills Scale Means

	N	Minimum	Maximum	Mean	Std. Deviation
Skills	450	2.70	7.00	5.1611	0.78625

To explore further, within the scale it is possible to calculate the mean for each item to determine whether any had a particular impact on the scale as a whole. Analysis can indicate the range of the

scale and the impact the deletion of each item would have. Again, analysis suggests no single item is causing a major impact on the overall range.

Fig 23 Skills Scale Items and Means

Skills Scale Items	Mean
I believe this programme will increase my understanding of management theory	**5.80**
I am confident I am able to write reports and assessment s to the standard required for this programme	4.98
I believe this programme will increase my knowledge about the practice of management	5.75
I am able to persuade others to accept my opinion	4.63
I am able to work with others to achieve an outcome which is acceptable to all	5.23
I am good at questioning others to gather information	*4.50*
Feedback I receive from the lecturer helps me improve my work	5.17
I am good at presenting information and ideas to an audience	*4.51*
I work well with other people	5.73
After I complete an assessment /activity I think about what I could do differently to improve the result	5.32

Looking at the overall means it is possible to see which has the lowest score overall, and which the highest. Though the means are close in range, what this does indicate is that the two areas which score lowest relate to students' perceived ability to interact with others to solicit information, and then to present information to an audience. Both of these require particular abilities around engagement with others, and confident interaction. The highest score is in the belief that the programme will teach them something. This could be perceived as tangible, in that the students are familiar with the concept of education, and the classroom environment as something which is within their control i.e. turn up, pay attention, listen to the teacher. The latter is less certain since this could be perceived as outside their control. This is a point which will be explored in more detail in the next chapter. Statistical analysis was undertaken to assess the impact of deleting any item from the scale on the overall scale mean, and checking the Cronbach's Alpha (see 4.4.1.1) should single items be deleted. Neither test suggested any particular item had impact.

4.4.1.1 Skills Scale Reliability and Validity

As noted earlier (section 3.6.9) Cronbach's Alpha coefficient was calculated to capture all surveys included in the project. Thus, analysis was undertaken of the 450 surveys forming the data set, and a sub-scale was created of all the questionnaires which students had completed on a second occasion (the 'tracked' surveys). Results are shown below:

Skills Scale	No of questionnaires	Items	Cronbach's Alpha Coefficient
All participants Questionnaires	450	10	0.79
'tracked' Questionnaires	159	10	0.83

These results show the permutations of the entire scale range from acceptable ($.8 > \alpha \geq .7$) to good ($.9 > \alpha \geq .8$) (George & Mallery, 2003)

4.4.2   Self-Regulated Learning Scale Overview

As described in the previous chapter, the self-regulated learning scale has been adapted from the MSLQ, and comprises 12 items. A summary of the scale, based on the responses of the 450 participants in the survey is as follows:

Self-Regulated Learning Scale Mean

	N	Minimum	Maximum	Mean	Std. Deviation
Self-Regulated Learning	450	2.58	7.00	4.852	0.7534

Within the scale, the mean for each item has been calculated to examine whether any had a particular impact on the scale as a whole. Analysis can indicate the range of the scale and the

impact the deletion of each item would have. Again, analysis suggests no single item is causing a major impact on the overall range.

Fig 24 Self-Regulated Learning Scale Items and Means

Self-Regulated Learning Scale Items	Mean
On occasion in class I can miss important points because I am thinking of other things	**3.63**
I ask myself questions to make sure I know the material I have been studying	4.85
When I become confused about something I'm reading I go back and try to work it out	**5.62**
If something is difficult to understand I try to look at it in a different way	5.16
I skim through study material first to see how it is organised	5.32
I ask myself questions to test my understanding of what I am studying	4.78
I try to change the way I study to suit the module or the lecturer's teaching style	4.33
I often find that I have been reading for class but don't understand what it is all about	4.26
I try to think though subject material and decide what I am supposed to learn, rather than simply read it	5.16
When studying, I try to identify which concepts I do not understand well	5.40
At the start of a study session I set myself goals to focus the time	4.86
If I get confused while taking notes during a lecture I make sure to sort it out afterwards	4.82

Looking at the overall means it is possible to see which has the lowest score overall, and which the highest. The lowest mean relates to students' perception of their ability to focus and concentrate in class, which suggests less of a concern in personal ability to be a student in a classroom situation. The highest score, in other words what students believe to be most applicable to them, relates to reflection and review. Statistical analysis was undertaken to assess the impact of deleting any item from the scale on the overall scale mean, and checking the Cronbach's Alpha should single items be deleted, neither testing suggested any particular item had impact.

4.4.2.1 Self-Regulated Learning Scale Reliability and Validity

The scale for self-regulated learning has been taken from the MSLQ. This scale relates to students' ability to manage their learning, and adapt learning strategies, hence part of the employability

concept. Again, this scale reflects the learning outcomes of postgraduate management education, as outlines earlier. The scale comprises 12 items.

Cronbach's Alpha was calculated, as described for the skills scale, and detailed below:

Self-Regulated Learning Scale	No of questionnaires	Items	Cronbach's Alpha Coefficient
All participants Questionnaires	450	12	0.77
'tracked' Questionnaires	159	12	0.78

These results show the permutations of the entire scale range from acceptable ($.8 > \alpha \geq .7$) to good ($.9 > \alpha \geq .8$) (George & Mallery, 2003)

4.4.3 Self-Efficacy Scale Overview

Self-efficacy was adapted from the MSQL, as described in the previous chapter. The 8 item scale summary details are presented in fig x below, based on the 450 respondents.

	N	Minimum	Maximum	Mean	Std. Deviation
Self-Efficacy	450	2.38	7.00	5.1997	0.93987

The standard deviation suggests little variation between responses. Looking within the scale and the impact the deletion each item would have, again suggests no single item is causing a major impact overall.

Fig 25 Self-Efficacy Scale Items and Means

Self-Efficacy Scale Items	Mean
I think I will receive excellent grades on this programme	4.83
I am certain I will be able to understand the most difficult material I am required to read for this programme	**4.72**
I am confident I can understand the basic concepts taught on this programme	*5.80*
I am confident I will be able to understand the most complex material my lecturer gives	4.88
I am confident I can do an excellent job on the assessments for this programme	4.98
I expect to do well on this programme	5.70
I know I will be able to master the skills taught on this programme	5.41
Considering the difficulty of this programme I am confident I will do well	5.28

Findings suggest students are confident that they can grasp the basic elements, less confident they can grasp the complex, and also score low around the perception that they will receive good grades. Again there is an element of this which is beyond the students' control. This corresponds with the skills scale results, which suggests a similar idea that students feel some things are beyond their control. This idea will be revisited in the discussion chapter.

Statistical analysis was undertaken to assess the impact of deleting any item from the scale on the overall scale mean, and checking the Cronbach's Alpha should single items be deleted, neither testing suggested any particular item had impact.

4.4.3.1 Self-Efficacy Scale Reliability and Validity

The scale for self-efficacy has been taken from the MSLQ. This scale relates to students' perception of their ability to be successful, hence part of that which makes an employable student. Again, this scale reflects the learning outcomes of postgraduate management education, as outlined earlier. The scale comprises 8 items.

Cronbach's Alpha was calculated, as described for the skills scale, and detailed in figure below:

Self-Efficacy Scale	No of questionnaires	Items	Cronbach's Alpha Coefficient
All participants Questionnaires	450	8	0.89
'tracked' Questionnaires	159	8	0.89

These results show the permutations of the entire scale range as good (.9 > α ≥ .8) (George & Mallery,2003)

4.4.4   Scales Comparison with Normal Distribution

In the first instance the three scales were interrogated to determine skewness and kurtosis:

Scale	Skewness	Kurtosis
Skills	-1.2	-0.6
Self-Regulation	0.7	0.1
Self-efficacy	-1.6	-1.3

What the figures demonstrate is a negative skew in the skills and self-efficacy scales, and a positive skew in self-regulation of leaning. However, the proximity to zero, and the volume of data, mean that parametric tests will be used to analyse surveys further. Similarly, while kurtosis suggests a peak in the self-regulation scale, the proximity to zero suggests parametric tests can be considered appropriate.

To test further the robustness of the data the results of the three scales were compared with normal distribution, to examine the spread of data. The distribution has been examined for each of the three scales at each stage of data collection, start, mid and end of the programme. In doing this, distribution is being tested for each collection of data, since each collection includes different combinations of participants.

A graphical representation of distribution is presented in the Q-Q Plots. The Shapiro-Wilk test is used to determine normality. Though more commonly used in smaller samples, the test is capable of dealing with sample sizes of 2000 and chosen over the Kolmogorov-Smirnov test which is considered more general (Salkind et al, 2008; Walliman, 2011).

Fig. 26   Skills Scale Distribution Start of Programme (n=152)

Normal Q-Q Plot of EMPSTART152emply1a

Fig 27   Skills Scale Distribution Mid- programme (n=189)

Normal Q-Q Plot of EMPMID189emply1b
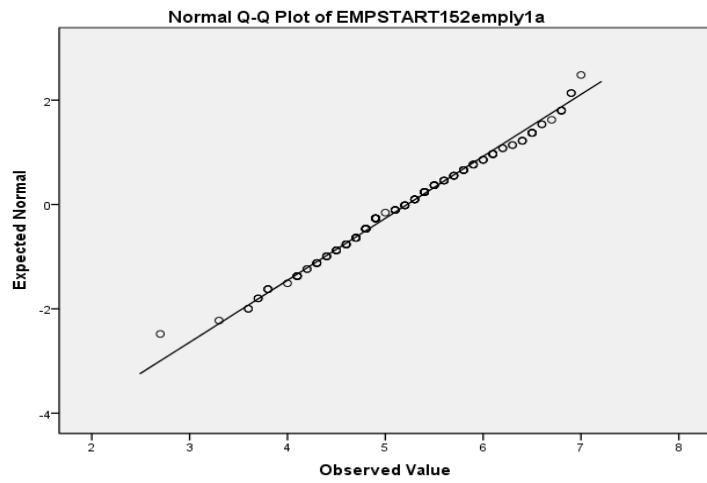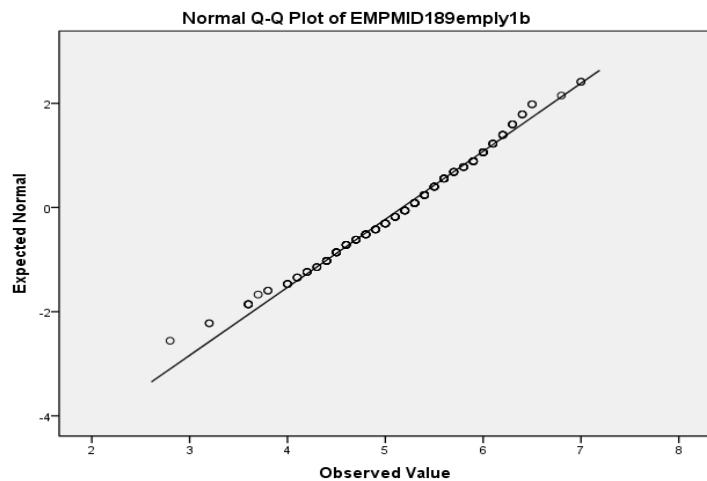
Fig 28 Skills   Scale   Distribution   End   Programme   (n=109)

Normal Q-Q Plot of EMPendAs109emply1c
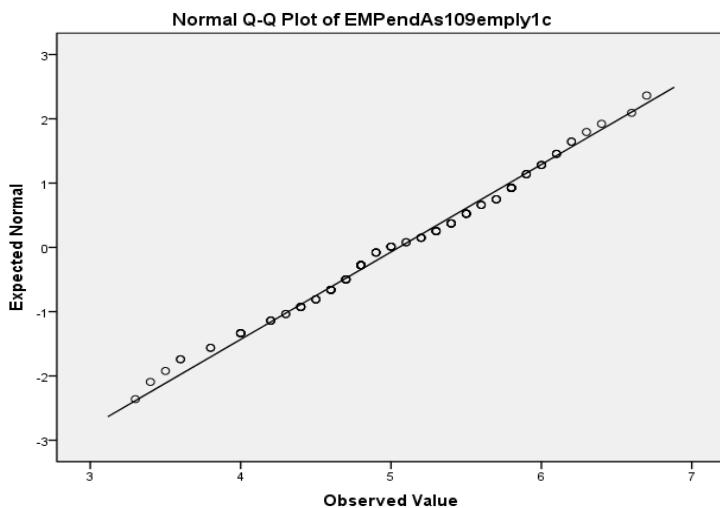
The graphical representation which shows proximity to the central line is an indication of normal distribution, at each data collection point.

Shapiro-Wilk test of Normality for the Skills Scale

Skills Scale	Number of respondents	Sig
Surveys - start of programme	152	.32
Surveys - mid programme	189	.18
Surveys – end of programme	109	.39

As significance at each time point in time is greater than 0.05 the assumption is of normal distribution for the skills scale.

Fig 29 Self-Regulated Learning Scale Distribution Start of Programme (n=152)
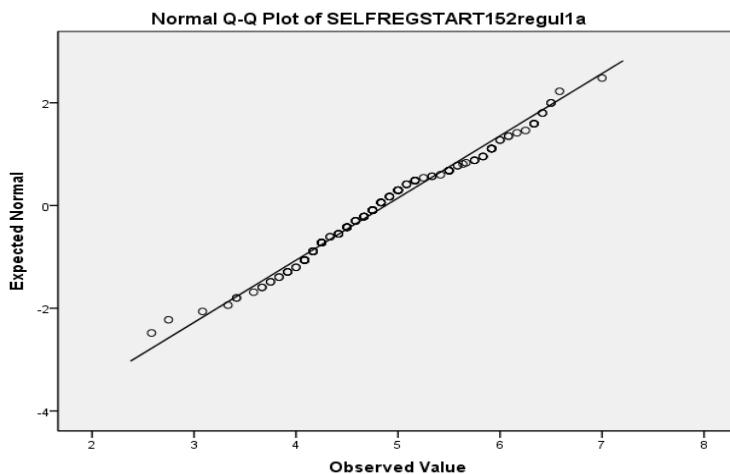
Normal Q-Q Plot of SELFREGSTART152regul1a

Fig 30 Self-Regulated Learning Scale Distribution Mid-Programme (n=189)

Normal Q-Q Plot of SELFREGMID189regul1b

Fig 31 Self-Regulated Learning Scale Distribution End of Programme (n=109)

Normal Q-Q Plot of EFFendAs109effic1c
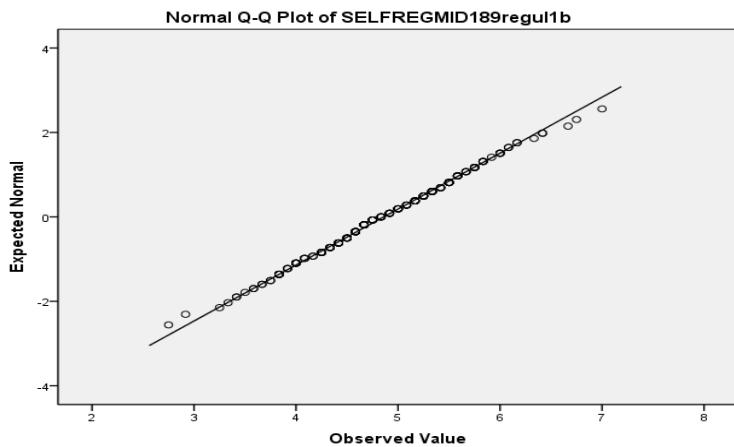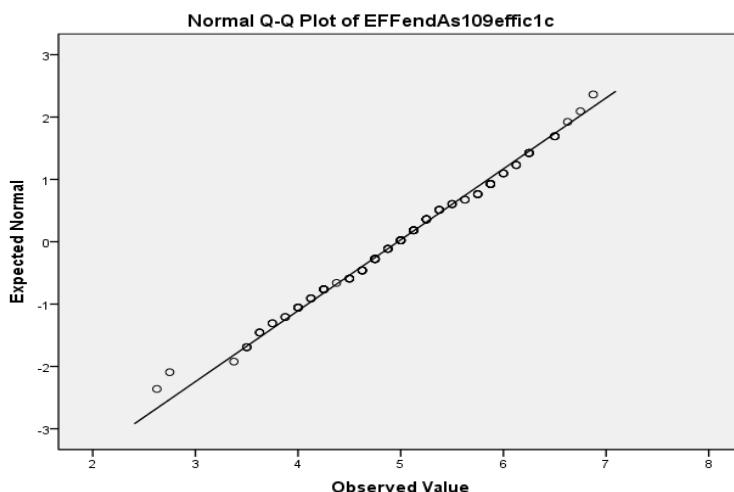
Shapiro-Wilk test of Normality for the Self-Regulated Learning Scale

Self-Regulated Learning Scale	Number of respondents	sig
Surveys - start of programme	152	.12
Surveys - mid programme	189	.97
Surveys – end of programme	109	.63

As significance at each time point in time is greater than 0.05 the assumption is of normal distribution for the skills scale.

Fig 32 Self-Efficacy Scale Distribution Start of Programme (n=152)
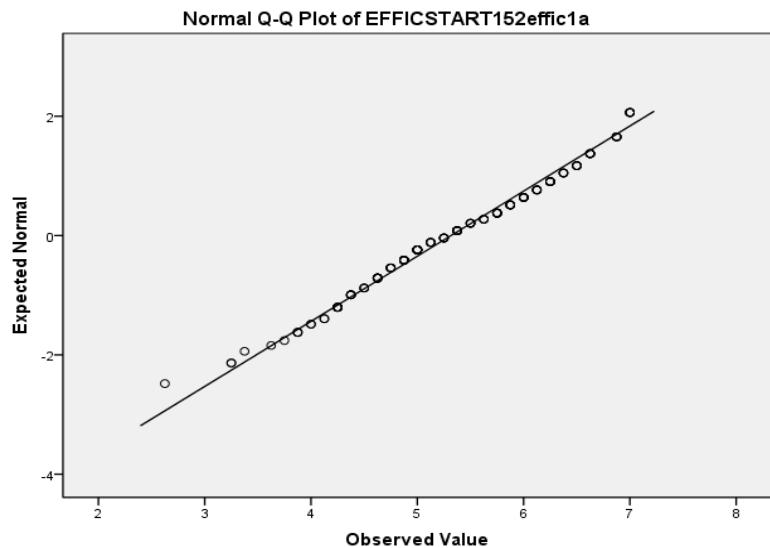
Normal Q-Q Plot of EFFICSTART152effic1a

Fig 33 Self-Efficacy Scale Distribution Mid-Programme (n=189)

Normal Q-Q Plot of EFFICMID189effic1b

Fig 34 Self-Efficacy Scale Distribution End of Programme (n=109)

Normal Q-Q Plot of SELFREGendAs109regul1c
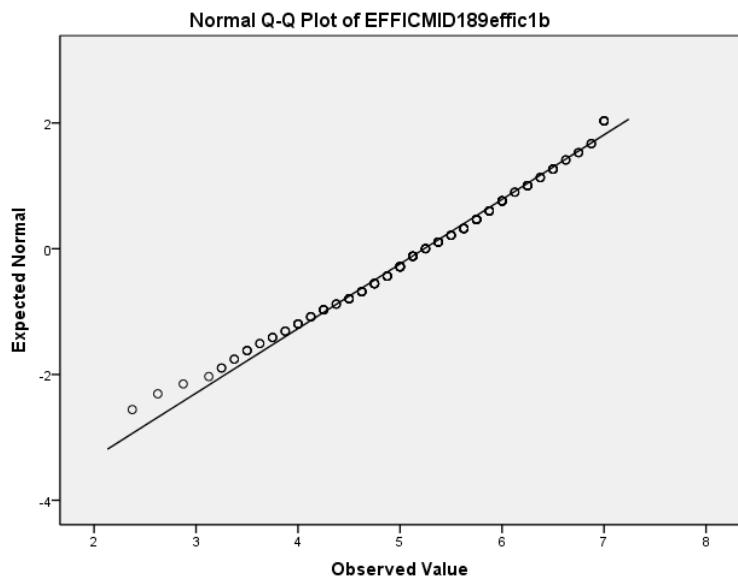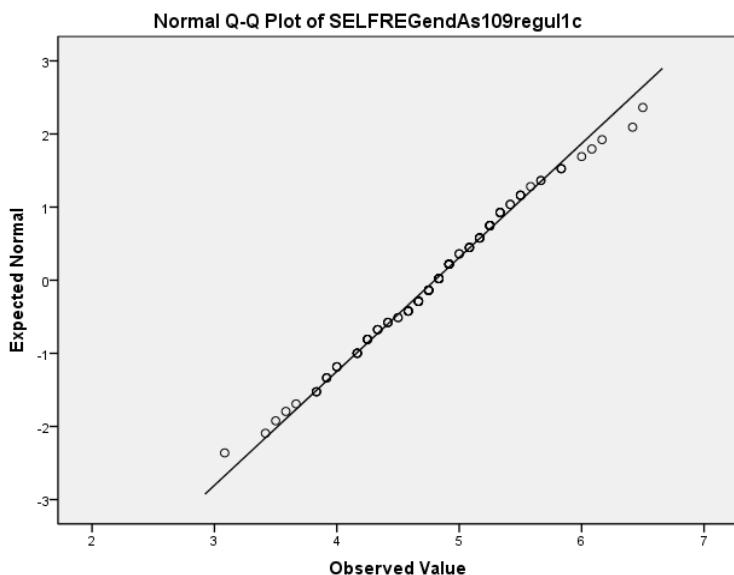
Shapiro-Wilk test of Normality for the Self-Efficacy Scale

Self-Efficacy Scale	Number of respondents	sig
Surveys - start of programme	152	.06
Surveys - mid programme	189	.04
Surveys – end of programme	109	.88

As noted, significance measure at start and end time point in time is equal to, or greater than, 0.05. However, the significance level mid-programme measures 0.04. Testing mid-programme data using the Kolmogorov-Smirnov, gives a result for significance of 0.2. Given this, and the graphical representation it may be concluded that the use of parametric tests would not be inappropriate in further analysis.

In sum, the scales have been tested to establish the findings are robust and thus provide a sound basis for further analysis.

4.5 Trends within Scales during the Programme

An aim of the study is to determine whether postgraduate education increases perceptions of employability. Focussing on the skills, self-efficacy and self-regulated learning scales, the data is tested to see whether there is a difference in the scale mean scores at the start, mid and end of the programme(s).

The research design has created a number of options in terms of how the data may be interrogated. Firstly the findings look at the overview of the data set, start, mid and end programme. In other words a snapshot of postgraduate management students at the start of their programme, compared with a snapshot of students mid-programme and a snapshot of students at the end of the taught programme. These snapshots provide an insight into students at various points during a postgraduate programme and give an indication into trends in perceptions as the programme is undertaken.

Following this, the analysis moves to focus on the trend in perception, comparing means of the three scales at the start of the programme with the means at the end of the taught part of the programme. It was decided to focus on these two points for two reasons. Firstly, this gives a longer period of time between points which may provide a more meaningful result in the context of looking at the programme as a whole, secondly, while Institution Two makes a distinction between completion of the first stage of the programme, and the second stage, this is not mirrored at Institution One.

4.5.1 Skills Trends Overview

In the first instance, analysis has been undertaken looking at each stage of the programme as a snapshot of a student population engaged in postgraduate management education. Thus, scale

means are presented of the students who completed a survey at the start of the programme, those who were surveyed mid-programme and those who were surveyed at the end of the programme.

The mean of the scale at the start of the programme is 5.2. Observation of the descriptive statistics suggests this is a high figure, above the scale mid-point (4). A less subjective view may be taken in comparing this to examples of where the scale has been used elsewhere. Since this scale has been developed for this research it is not possible to draw direct comparisons as to where it has been applied elsewhere. In using the MSLQ, which informs other scales in this study instrument the score for a scale is calculated by use of the mean. The overall score represents the wording of items within the scale, thus higher scores suggest higher levels of the construct. As such, the skills scale findings are assessed on the same basis. In other words, a high score on the skills scale suggests high perceptions of skills.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Skillstart	152	2.70	7.00	5.2237	.84208
SkillsMiddle	189	2.80	7.00	5.1735	.76585
SkillsEnd	109	3.30	6.70	5.0523	.73480

For clarity in graphical presentation data has been normalised to be in percentages, as there are different numbers in each sample.

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Fig 35 Skills Trends
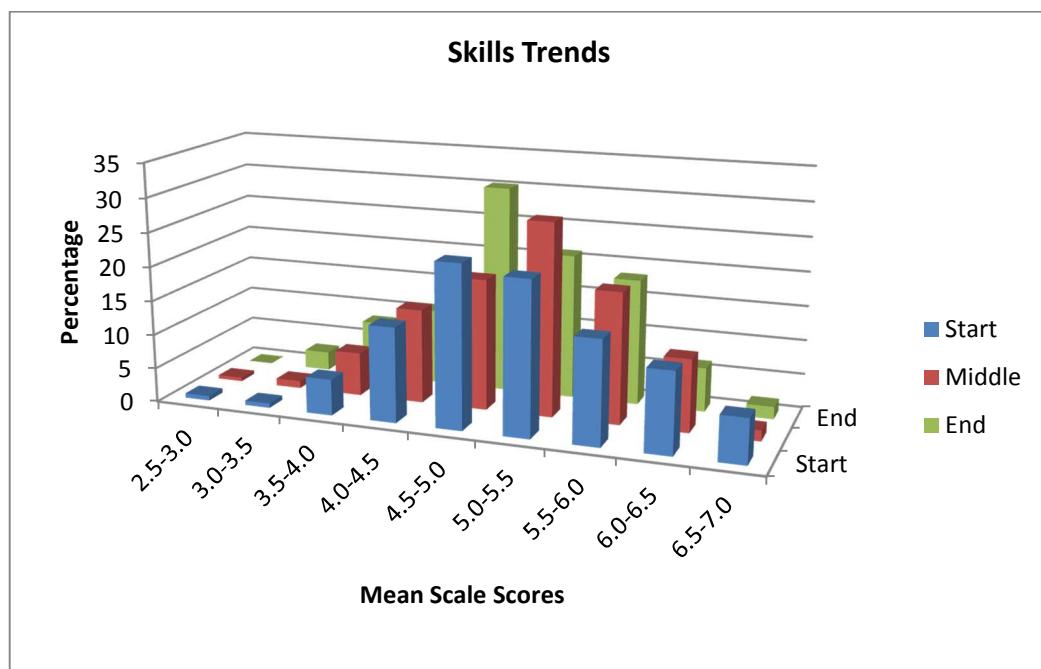
What the findings suggest is that students perceive themselves to have high levels of skills at the start of the programme. Secondly, findings suggest that perceived level of skills is lower at the end of the programme than at the start. Findings also indicate that no student scored themselves at the maximum level at the end of the programme, which is different from the start. A t test was conducted to evaluate whether the skills scale mean at the end of the taught programme (M=5.05, SD= 0.73) was significantly different from the skills scale mean at the start of the programme (M=5.22, SD=0.84), t (109) = -2.38, p=0.02. Cohen's effect size value (d=0.22) suggests this is a weak effect. Thus the null hypothesis is rejected. In other words students' perception of their skills is lower at the end of the taught programme and this difference is statistically significant. This is an important finding, the significance of which will be discussed in the following chapter.

4.5.2   Self-Regulated Learning Trends

The mean of the scale at the start of the programme is 4.87 which is above the mid-point on the 7 point scale. Not particularly low but lower than perceptions of skills at the start of the programme.

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Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SRStart	152	2.58	7.00	4.8786	.82560
SRMiddle	189	2.75	7.00	4.8602	.75455
SREnd	109	3.08	6.50	4.8005	.64190
Valid N (listwise)	0				

For clarity in graphical presentation data has been normalised to be in percentages, as there are different numbers in each sample.

Fig 36 Self-Regulated Learning Trends
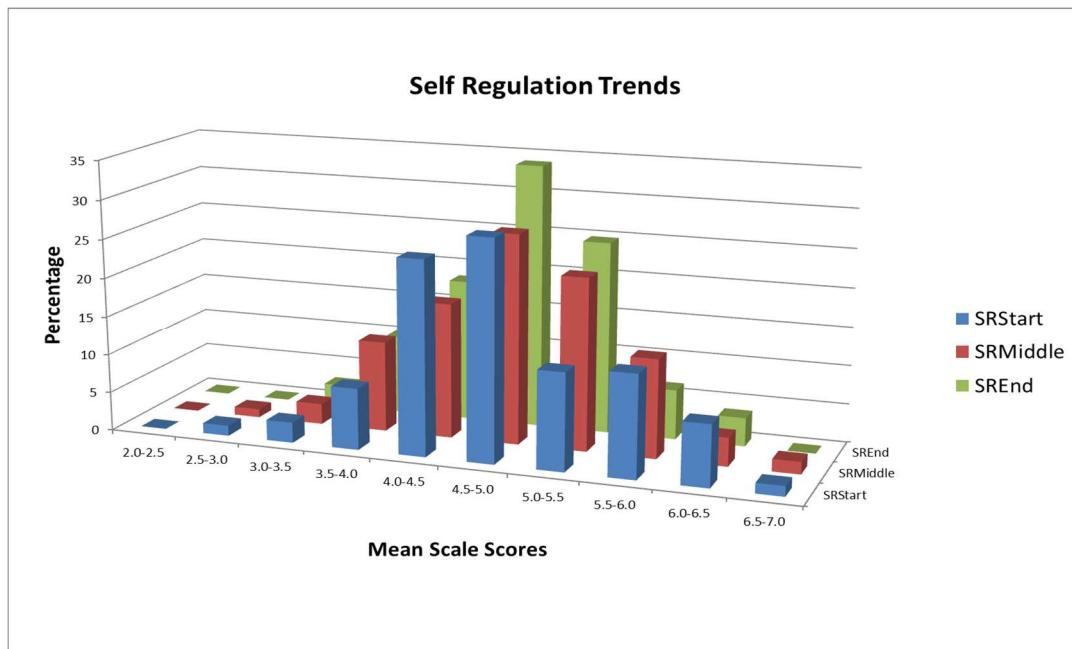
Again, findings suggest that students' perceptions of self-regulated learning at the start of the programme are high, following the measure described in the previous section (4.5.1) and in terms of being above the mid-point of the scale.

Secondly findings suggest that perceived level of self-regulated learning are lower at the end of the programme than at the start. A t test was conducted to evaluate whether the self-regulated learning scale mean at the end of the taught programme (M=4.80, SD= 0.64) was significantly different from the self-regulated learning scale mean at the start of the programme (M=4.88, SD=0.83), t (109) = -1.294, p=0.19. In addition, Cohen's effect size value (d=0.1) suggests the difference to be trivial. Thus the null hypothesis is retained. In other words, descriptive statistics indicate that though students' perceptions of their self-regulated learning is lower at the end of the taught programme than at the start, this difference is not large enough to be considered significant.

4.5.3   Self-efficacy Trends Overview

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SEstart	152	2.63	7.00	5.3174	.91652
SEmiddle	189	2.38	7.00	5.2361	.97401
SEaEnd	109	2.63	6.88	4.9725	.87902

Fig 37 Self-efficacy Trends

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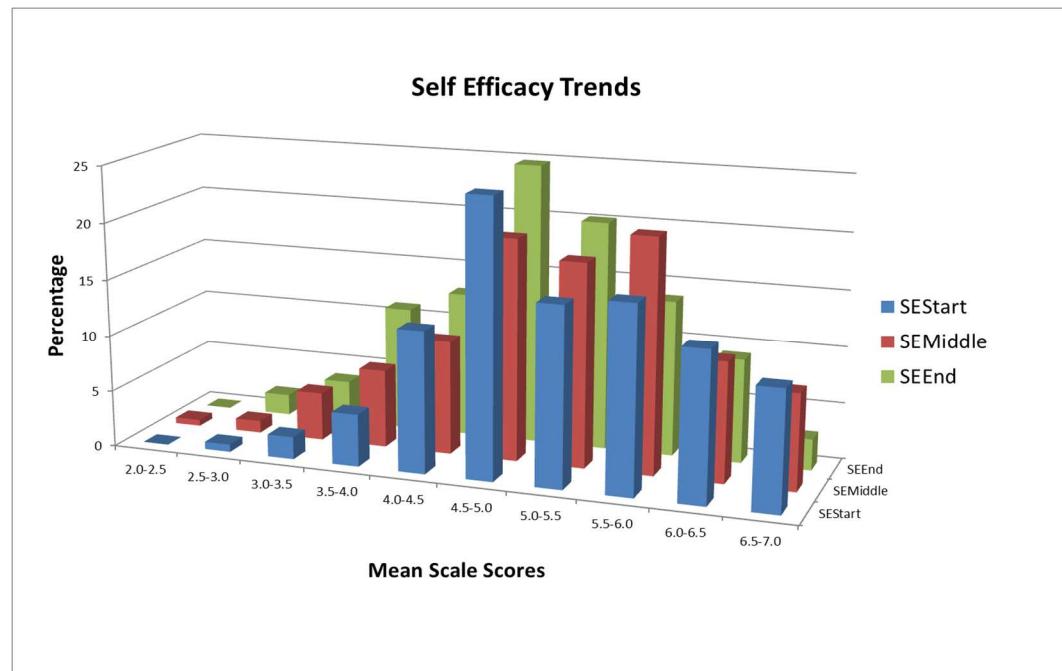
Again, descriptive findings suggest students have high levels of perceived self-efficacy at the start of the programme. Further, findings again indicate that perceived level of self-efficacy is lower at the end of the programme than at the start. A t-test was conducted to evaluate whether the self-efficacy scale mean at the end of the taught programme (M=4.97, SD= 0.88) was significantly different from the self-efficacy scale mean at the start of the programme (M=5.32, SD=0.92), t (109) = -4.13, $p<0.001$. Cohen's effect size value (d=-0.4) indicates a moderate effect. In other words, students' perception of their self-efficacy is lower at the end of the taught programme than at the start, and this difference is statistically significant. Again, this is an important finding which will be discussed in the following chapter.

4.6   Exploratory Factor Analysis

Factor analysis was conducted on the data collected from the 450 participants to identify which variables within each of the three scales may be grouped together. As noted earlier in this study, responses were collected at three points during the programme, which offers an opportunity to explore whether groupings, should they exist, change depending on whether the responses are start-mid or end of the taught programme.

Prior to employing factor analysis it is suggested that certain criteria be met. This criteria differs in literature, but broad agreement exists that variables be of at least ordinal measurement, that variables be normally distributed and linear and that the sample size to the number of variables be no less than 5:1 (Brace et al, 2012; Cohen et al, 2011; McQueen et al 2002). Data in this study meets the criteria. In addition, the Bartlett test of sphericity and the Kaiser-Mayer-Olkin (KMO) measure were noted and are reported below.

In sum, nine separate factor analyses have been undertaken, start, mid and end for the skills, self-efficacy and self-regulated learning scale. The method of factor analysis employed is Principal Component Analysis, as detailed in Chapter 3.

4.6.1   Factor Analysis: Skills Scale Start

Principal Component Analysis with direct oblimin rotation was conducted to determine what, if any, underlying structure exists on the skills scale at the start of the programme of study. Output from the KMO (0.74) and Bartlett test (0.000) indicate the data is suitable for factorability where the former should be >.5 and the latter where $p < .05$ (Brace et al, 2012; Salkind, 2008). Initial analysis retained two components with an eigenvalue greater than one and the scree plot also indicated two components. However, the number of non-redundant residuals exceeding the 0.05 criteria was 62%, which is higher than the recommended 50% or less (Field, 2013). Analysis was re-run with the number of factors extracted set to 4. This reduced the number of residuals to 57%, though this accounted for 71.89% of total variability, compared with 53.34% with only two components. Given this is exploratory factor analysis and its purpose here is to explore changes and consistency across the programme it was decided to proceed, despite the relatively high residuals since other criteria are acceptable. It should be noted that, following Field (2013) and Cohen et al (2011) where the issue of high non–redundant residuals, in conjunction with low levels of variability, occurs additional components are considered in the analysis, as detailed in the text. Component names and the variables that load on them are shown in Fig. 38.

Fig: 38 Components found by PCA Skills Start of Programme

Component	Loading
Component 1 Synthesising Information	
I am good at questioning others to gather information	.768
Feedback I receive from the lecturer helps me improve my work	.546
After I complete an assessment /activity I think about what I could do differently to improve the result	.908
Component 2 Communicating	
I am able to persuade others to accept my opinion	.752
I am good at presenting information and ideas to an audience	.765
Component 3:Working with Others	
I am able to work with others to achieve an outcome which is acceptable to all	-.777
I work well with other people	-.833
Component 4 Knowledge and Learning	
I am confident I am able to write reports and assessment s to the standard required for this programme	.653
I believe this programme will increase my understanding of management theory	.819
I believe this programme will increase my knowledge about the practice of management	.646

4.6.2   Factor Analysis: Skills Scale Mid

Principal Component Analysis with direct oblimin rotation was conducted on the skills scale at the mid-point of the programme. Output from the KMO (.806) and Bartlett test (0.000) indicate the data is suitable for factorability. Initial analysis retained two components with an eigenvalue greater than one and the scree plot also indicated two components. As with the previous example of principal component analysis, the number of non-redundant residuals, at 62%, exceeded the 0.05 criteria. Analysis was re-run with the number of factors extracted set to 4. This reduced the number of residuals to 55%, though now accounted for 66.19% of total variability, compared with 48.12% with only two components.

The four components may be thought of as representing different aspects of skills. Component names and loadings are shown in figure 39.

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Fig: 39 Components found by PCA Skills Mid Programme

Component	Loading
Component 4: Knowledge and Learning	
I believe this programme will increase my understanding of management theory	**.904**
I believe this programme will increase my knowledge about the practice of management	**.830**
After I complete an assessment /activity I think about what I could do differently to improve the result	**.439**
Component 2 Communicating	
I am able to persuade others to accept my opinion	**.833**
I am good at presenting information and ideas to an audience	**.688**
I am good at questioning others to gather information	**.710**
Component 3:Working with Others	
I am able to work with others to achieve an outcome which is acceptable to all	**.909**
I work well with other people	**-.665**
Component 1 Synthesising Information	
I am confident I am able to write reports and assessments to the standard required for this programme	**.814**
Feedback I receive from the lecturer helps me improve my work	**.556**

4.6.3   Factor Analysis: Skills Scale End

Principal Component Analysis with direct oblimin rotation was conducted on the skills scale at the end of the taught programme. Output from the KMO (.709) and Bartlett test (0.000) indicate the data is suitable for factorability. Initial analysis retained three components with an eigenvalue greater than one and the scree plot also indicated three components. The number of non-redundant residuals, at 73% exceeded the 0.05 criteria. Analysis was re-run with the number of factors extracted set to 4. This reduced the number of residuals, though only to 66%, accounting for 65.00% of total variability. Analysis was run again with number of components extracted set to five which reduced the number of non-redundant residuals to 46%, and accounting for 74.19% of the variance.

Fig: 40 Components found by PCA Skills End Programme

Component	Loading
Component 1 Synthesising Information	
I am confident I am able to write reports and assessment s to the standard required for this programme	.740
I am good at questioning others to gather information	.857
Component 4 Knowledge and Learning	
I believe this programme will increase my understanding of management theory	-.856
I believe this programme will increase my knowledge about the practice of management	-.928
Component 3: Working with Others	
I am able to work with others to achieve an outcome which is acceptable to all	-.805
I work well with other people	-.885
Component 2	
I am good at presenting information and ideas to an audience	-.513
Feedback I receive from the lecturer helps me improve my work	.760
Component 5	
I am able to persuade others to accept my opinion	-.765
After I complete an assessment /activity I think about what I could do differently to improve the result	-.811

Looking at the three analyses there is consistency across the programme whereby two components may be thought of as representing Working with Others, and Knowledge and Learning. This does suggest a similar response across the programme, to the concept of working as part of a team which relates to the prevalence of teamworking found in much of the employability literature, presented in Chapter 2 (Fig 4). Further it would be expected that students engaged on a programme anticipate an ongoing development in learning. There is less complete consistency across the programme in other areas though it could be argued that Synthesising Information captures the essence of reflecting upon, and using, information. The lack of complete consistency, for example when looking at the results of the final principal component analysis reflects the number of components

considered, and suggests a limit to the usefulness of this analysis where too few variables may be loaded onto too many components.

4.6.4   Factor Analysis: Self-efficacy Scale Start

Principal Component Analysis with direct oblimin rotation was conducted to determine what, if any, underlying structure exist on the self-efficacy scale at the start of the programme of study. Output from the KMO (.878) and Bartlett tests (.000) indicate the data is suitable for factorability. Initial analysis retained two components with an eigenvalue greater than one and the scree plot also indicated two components. However, the number of non-redundant residuals exceeding the 0.05 criteria was 53%, which is higher than the recommended 50% or less (Field, 2013). Analysis was re-run with the number of factors extracted set to 3. This reduced the number of residuals to 42%, and accounted for 79.32% of total variability, compared with 71.81% with only two components. The three components' names and loadings are shown in Fig. 41.

Fig: 41 Components found by PCA Self-efficacy Start Programme

Component	Loading
Component 1 Belief in Ability to Succeed	
I think I will receive excellent grades on this programme	**.897**
I am confident I can do an excellent job on the assessments for this programme	**.778**
I expect to do well on this programme	**.828**
Considering the difficulty of this programme I am confident I will do well	**.783**
Component 2 Managing Complexity	
I am certain I will be able to understand the most difficult material I am required to read for this programme	**.811**
I am confident I will be able to understand the most complex material my lecturer gives	**.698**
Component 3 Managing Basic Ideas	
I am confident I can understand the basic concepts taught on this programme	**.804**
I know I will be able to master the skills taught on this programme	**.698**

4.6.5 Factor Analysis: Self-efficacy Scale Mid

Principal Component Analysis with direct oblimin rotation was conducted on the self-efficacy scale at the mid-point of the programme. Output from the KMO (.898) and Bartlett test (.000) indicate the data is suitable for factorability. Initial analysis retained one component with an eigenvalue greater than one and the scree plot also indicated one component. The number of non-redundant residuals exceeding the 0.05 criteria was 60%. Increasing the number of factors extracted to 3 reduced the number of residuals to 50%, and accounted for 75.99% of total variability, compared with 57.92% with only one component. The three components' names and loadings are shown in Fig. 42.

Fig 42 Components found by PCA Self-efficacy Mid Programme

Component	Loading
Component 1 Belief in Ability to Succeed	
I think I will receive excellent grades on this programme	**.830**
I am confident I can do an excellent job on the assessments for this programme	**.531**
I expect to do well on this programme	**.869**
I know I will be able to master the skills taught on this programme	**.499** (3=.474)similarity suggests this may easily be loaded onto Component 3
Considering the difficulty of this programme I am confident I will do well	**.774**
Component 2 Managing Complexity	
I am certain I will be able to understand the most difficult material I am required to read for this programme	**.824**
I am confident I will be able to understand the most complex material my lecturer	**.628**
Component 3 Managing Basic Ideas	
I am confident I can understand the basic concepts taught on this programme	**.856**

4.6.6 Factor Analysis: Self-efficacy Scale End

Principal Component Analysis with direct oblimin rotation was conducted on the self-efficacy scale at the end of the taught programme. Output from the KMO (.876) and Bartlett tests (.000) indicate

the data is suitable for factorability. Initial analysis retained one component with an eigenvalue greater than one and the scree plot also indicated one component. The number of non-redundant residuals exceeding the 0.05 criteria was 67%. Increasing the number of factors extracted to 3 reduced the number of residuals to 39%, and accounted for 74.71% of total variability, compared with 51.99% with only one component. The three components' names and loadings are shown in Fig 43.

Fig 43 Components found by PCA Self-efficacy End Programme

Component	Loading	
Component 1 Belief in Ability to Succeed		
I think I will receive excellent grades on this programme	.833	
I am confident I can do an excellent job on the assessments for this programme	.812	
I expect to do well on this programme	.728	
I know I will be able to master the skills taught on this programme	.769	
Considering the difficulty of this programme I am confident I will do well	.811	
Component 3 Managing Basic Ideas		
I am confident I can understand the basic concepts taught on this programme	.933	
Component 2 Managing Complexity		
I am certain I will be able to understand the most difficult material I am required to read for this programme	-.758	
I am confident I will be able to understand the most complex material my lecturer gives	-.913	4.88

Exploring the three separate analyses there is considerable consistency across the programme whereby three underlying components may be thought of as representing a Belief in the Ability to Succeed, ability to Manage Basic Ideas, which is separate from Managing Complexity.

4.6.7   Factor Analysis: Self-Regulated Learning Scale Start

Principal Component Analysis with direct oblimin rotation was conducted to determine whether any underlying structure exists on the scale for self-regulated learning at the start of the programme of study. Output from the KMO (0.80) and Bartlett tests (0.000) indicate the data is suitable for

factorability. Initial analysis retained four components with an eigenvalue greater than one and the scree plot also indicated four components. However, the number of non-redundant residuals exceeding the 0.05 criteria was 53%. Analysis was re-run with the number of factors extracted set to five. This had no impact on the number of residuals, but accounted for 71.66% of total variability, compared with 64.88% with four components. As such it was decided to explore the analysis with five components. Component names and loadings are shown in Fig 44.

Fig 44 Components found by PCA Self-regulated Learning Start

Component	Loading
Component 1Testing one's Own Understanding	
I ask myself questions to make sure I know the material I have been studying	.734
When I become confused about something I'm reading I go back and try to work it out	.567
When studying, I try to identify which concepts I do not understand well	.519
I ask myself questions to test my understanding of what I am studying	.644
At the start of a study session I set myself goals to focus the time	.748
Component 2	
I often find that I have been reading for class but don't understand what it is all about	.872
Component 3 Self Discipline in Learning	
I skim through study material first to see how it is organised	-.887
I try to think though subject material and decide what I am supposed to learn, rather than simply read it	-.821
If I get confused while taking notes during a lecture I make sure to sort it out afterwards	-.547
Component 4	
On occasion in class I can miss important points because I am thinking of other things	-.867
Component 5	
If something is difficult to understand I try to look at it in a different way	.860
I try to change the way I study to suit the module or the lecturer's teaching style	.419

4.6.8   Factor Analysis: Self-Regulated Learning Scale Mid-Programme

Principal Component Analysis with direct oblimin rotation was conducted to determine what underlying structure which may exist on the self-regulated learning scale at the mid-point of the

programme of study. Output from the KMO (0.840) and Bartlett test (0.000) indicate the data is suitable for factorability. Initial analysis retained three components with an eigenvalue greater than one and the scree plot also indicated three components. The number of non-redundant residuals exceeding the 0.05 criteria was 57% thus analysis was re-run with the number of factors extracted set to four, then five. This reduced the number of residuals to 45% and accounted for 67.96% of total variability, compared with 53.81% with three components. As such it was decided to explore the analysis with five components. Component names and loadings are shown in Fig. 45.

Fig 45   Components found by PCA Self-regulated Learning Mid-Programme

Component	Loading
Component 4	
When studying, I try to identify which concepts I do not understand well	.381
I skim through study material first to see how it is organised	.706
Component 2	
I often find that I have been reading for class but don't understand what it is all about	.897
On occasion in class I can miss important points because I am thinking of other things	.592 (.588 C1)
Component 3	
I try to think though subject material and decide what I am supposed to learn, rather than simply read it	.286
I try to change the way I study to suit the module or the lecturer's teaching style	.992
Component 1 Testing One's Own Understanding	
I ask myself questions to test my understanding of what I am studying	-.923
If something is difficult to understand I try to look at it in a different way	-.353
I ask myself questions to make sure I know the material I have been studying	-.923
Component 5 Self Discipline in Learning	
At the start of a study session I set myself goals to focus the time	-.808
If I get confused while taking notes during a lecture I make sure to sort it out afterwards	-.672
When I become confused about something I'm reading I go back and try to work it out	-7.26

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4.6.9 Factor Analysis: Self-Regulated Learning Scale End

Principal Component Analysis with direct oblimin rotation was conducted to determine what, if any, underlying structure exists on the self-regulated learning scale at the end of the taught programme. Output from the KMO (.754) and Bartlett tests (0.000) indicate the data is suitable for factorability. Initial analysis retained three components with an eigenvalue greater than one and the scree plot also indicated three components. The number of non-redundant residuals exceeding the 0.05 criteria was 60%, which is higher than the recommended 50%, thus analysis was re-run with the number of factors extracted set to four and then five. This reduced the number of non-redundant residuals to 56%, but did account for 67.19% of total variability, compared with 51.43% with three components. As such it was decided to explore the analysis with five components. Component names and loadings are shown in Fig 46.

Fig 46 Components found by PCA Self-Regulated Learning End Programme

Component	Loading
Component 1 Testing One's Own Understanding	
I ask myself questions to test my understanding of what I am studying	.673
I ask myself questions to make sure I know the material I have been studying	.807
I try to think though subject material and decide what I am supposed to learn, rather than simply read it	.511
I skim through study material first to see how it is organised	.816
Component 2	
If I get confused while taking notes during a lecture I make sure to sort it out afterwards	-.648
On occasion in class I can miss important points because I am thinking of other things	.768
Component 3	
I often find that I have been reading for class but don't understand what it is all about	.864
I try to change the way I study to suit the module or the lecturer's teaching style	.534
Component 4 Self Discipline in Learning	
When I become confused about something I'm reading I go back and try to work it out	.947
If something is difficult to understand I try to look at it in a different way	.699
When studying, I try to identify which concepts I do not understand well	.326
Component 5	
At the start of a study session I set myself goals to focus the time	.838

Looking at the three analyses there is little consistency across the programme other than where one component may be thought of as representing Testing One's Own Understanding. What this would suggest is consistency in perceptions around taking responsibility for learning and development, which relates to the literature around a willingness to learn and to be able to reflect on learning in order to develop (Raybould et al, 2005; Harvey et al, 2002; Endejok, 2013).

While there is less consistency across the programme in other areas it could be argued that the variables themselves reflect very similar concepts, for example, where one elects to review some aspect of work/resolves to rectify some lack of comprehension this could be perceives as Self Discipline in Learning. However, this is perhaps stretching the principles of Principal Component Analysis, and is more a reflection of the limitation of the usefulness of the analysis in this case where too few variables end up loaded onto too many components.

4.7   Differences Between Groups Within the Student Population.

Thus far analysis has been undertaken looking at the student population as a whole. This section seeks to explore differences between groups within the student population. Initially, analysis looks at the scales of skills, self-regulation of learning, and self-efficacy focussing on whether there is a perceived difference within the grouping of gender, work experience, nationality and institution. The literature describes the diverse composition of the postgraduate population, and the trends, suggesting an examination of differences between groups within the population. Secondly, analysis has been undertaken looking at the start of the programme, and on completion of the taught part of the programme, again looking at the four variables, gender, work experience and nationality and institution.

Age has been rejected as a variable since this has been identified as a limitation of the study and potential for further research (as noted earlier in section 4.3).

For each element of analysis variables were interrogated to generate information in relation to a particular category. For example, in the case of skills and gender, a variable was created comprising all 450 participants' responses in relation to the ten item skills scale. Using SPSS, gender was isolated giving data relating specifically to the skills perceptions of males and of females. Thus, the dependent variable is 'Skills All' and the independent variable 'Gender'.

In this way, the impact of gender on skills may be explored. To establish whether to use parametric or non-parametric tests, the data must meet certain criteria. It is generally accepted that parametric test are more powerful (Antonius, 2013; Salkind, 2008), however, in order to use parametric tests, the data must fulfil certain assumptions.

- That the independent variable comprises two categorical independent groups (in this case gender (M/F).
- Groups are independent (an individual cannot be in more than one, e.g. cannot be both male and female)
- That there are no significant outliers – examined by comparison of the mean and trimmed mean.
- That the dependent variable be normally distributed in each group defined by the independent variable - tested using the Shapiro-Wilk test of normality
- That population variances are equal (using Levene's test)

(adapted from Kirkpatrick et al, 2007; Antonius, 2013).

This process was replicated for all aspects of the analysis of the three scales - skills, self -regulated learning and self-efficacy, in relation to gender, work experience and institution. Where the assumptions listed above were met, independent t tests were carried out. Where assumptions were violated, appropriate non-parametric testing was undertaken, and this is detailed below, as part of the presentation of each finding.

The nationality variable comprises six independent categories (White, Mixed, Asian/Asian British, Black/Black British, Chinese, Other) hence the t test is not an appropriate parametric test. In the case of three or more independent samples ANOVA is commonly used as the parametric testing

(Kirkpatrick et al, 2007; Burns, 2000). ANOVA is based on the same assumptions as t tests, as described above (Sarantakos, 2005; Puri, 1996). Where the assumptions which are required to be met to use ANOVA were violated, appropriate non parametric testing was undertaken. While significance testing indicates whether a difference in results is of any real significance, calculating the effect size value indicates the size of an effect, or, put simply whether it matters (Burns, 2000; Salkind et al, 2008). Again, this is detailed as part of the presentation of each finding. In addition, effect sizes have been calculated and are presented with findings. While significance testing indicates whether a difference between two samples is 'significant' i.e.whether it matters or not, the effect size is calculated to indicate the strength of the difference (Antonius, 2013; Colman et al, 2008). In the presentation of findings the effect size is categorised following Cohen's (1988) lexicon:

0-0.2	Weak/small effect
0.5	Modest/medium/moderate
0.8+	Large

Thus, for example, where a statistically significant difference is found, and the effect size is 0.9 this is a substantial effect, whereas if the effect size is 0.2, the effect is still present, but so small as to be trivial. It should be noted that there is considerable debate in literature as to the danger of the interpretation of effect sizes being overly rigid (Cohen, et al, 2011) however, current consensus is to report both significance and effect (Salkind et al, 2008). Thus, both are presented, mindful of the on-going debate.

4.7.1   Differences in Perceptions of Skills: All Participants

Initially, analysis was undertaken looking at the impact of gender, work experience, nationality and institution on the skills scale.

4.7.1.1 Skills and Gender: all participants

Descriptive Statistics: Skills and Gender		N	Mean	Std. Deviation
Skills ALL As 450	Male	210	5.2524	.79069
	Female	240	5.0812	.77521

An independent samples t test was conducted to test the effects of gender on skills. The mean score of males on the variable 'Skills All Participants' is statistically significantly higher, t (448) =2.31, p=0.021 than the mean score of females on the same variable.

Thus, the null hypothesis may be rejected. In other words, looking at the snapshot of 450 participants in postgraduate management education, males' perception of their skills is higher than females' perception, though Cohen's effect size value (d=0.22) suggests this is a weak effect.

4.7.1.2 Skills and Work Experience: All participants

Descriptive Statistics: Skills and Work Experience	N	Mean	Std. Deviation
With work experience	329	5.2836	.77253
Without work experience	121	4.8281	.72723

When tested to determine the appropriateness of using an independent t test, the assumption of normal distribution was violated.

Tests of Normality: Skills Scale: All Students

Work Experience		Kolmogorov-Smirnov			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
SkillsALL As 450	**YES**	.083	329	.000	.988	329	**.009**
	NO	.098	121	.006	.977	121	.034

Though some degree of non-normal distribution is acceptable (Saunders et al, 2009; Sarantakos, 2005) given the strength of this result, it was decided to use a non-parametric test as to whether a statistical difference existed between those with and without work experience, and in this case the Mann-Whitney test was selected as the non-parametric equivalent (Cohen et al, 2011; Burns, 2000). The Mann-Whitney test (U=12577.500, p<0.001) indicates a statistically significant difference between perceptions of skills of students with work experience, and those with no work experience. On this evidence the null hypothesis that there is no difference between the two categories may be rejected. Using Mann- Whitney, effect size may be inferred from an examination of the difference in the mean ranks (Burns, 2000). Thus, with reference to the descriptive statistics, analysis suggests students with work experience perceive their skills to be higher than students without work experience.

4.7.1.3 Skills and Nationality: All Participants

As noted earlier, the 19 categories for nationality were recoded into 6, in line with the framework used in the National Census.

For the purpose of the ongoing statistical analysis regards the impact of nationality it was decided to exclude the categories of 'mixed' and 'other', given the small numbers they represent, and the subsequent small proportion of the data set (see Fig. 47).

Fig 47 Proportion of Students in Excluded Nationality Categories

Category	Number in total data set	% of total in data set	% they represent of 152 participants at start of the programme	% they represent of 109 participants on completion of programme
Mixed	6	1.3%	1.3%	1.8%
Other	15	3.3%	3.2%	3.6%
total	21	4.6%	4.6%	5.5%

Thus, detailed analysis relating to nationality is focussed on the larger groups-White (n=70), Asian/Asian British (n=194), Black/Black British (n=66) and Chinese (n=99).

ANOVA was considered as a means of exploring the impact of nationality, as oppose to the independent t test, since there are more than three categories within the variable. Again the data was assessed to determine appropriate tests, the assumptions broadly the same as those above for the t tests (Antonius, 2013; Kirkpatrick et al, 2011). In this case the data was not found to be normally distributed for all groups.

Nationality Tests of Normality		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	df	Sig.	Statistic	Df	Sig.
Skills ALL As 450	White	.075	70	.200[*]	.966	70	.058
	asian/asian british	.068	194	.027	.989	194	.158
	black/black british	.092	66	.200[*]	.943	66	**.005**
	Chinese	.062	99	.200[*]	.991	99	.718

In addition homogeneity of variances ($p < 0.001$) suggested evidence of differing variances in the different groups. Given this, the Kruskal-Wallis test was used as appropriate non-parametric equivalent of ANOVA (Cohen et al 2011; Burns 2000).

Descriptive statistics are presented thus which suggests Black/Black British students perceive their levels of skills highest among the 4 groups.

Nationality and Skills: All Participants

Nationality and Skills : all students			
	N	Mean	Std. Deviation
White	70	5.1543	.64487
Asian/British Asian	194	5.2010	.82311
Black/Black British	66	5.6273	.80566
Chinese	99	4.8000	.62857
Total	429	5.1664	.79118

Calculating the Kruskal-Wallis statistic resulted in the following ($\chi_2 = 48.640$, $p < 0.001$) suggesting a statistically significant difference between the groups. The Kruskal-Wallis test indicates that there is a difference, but not where the difference exists (Cohen et al, 2011; Colman et al, 2008). In order to determine precisely where the difference is statistically significant, pairwise comparisons using Mann-Whitney can be undertaken (Burns, 2000). Although, as in this case, Post-hoc tests which would give this insight are available to be used where there is no homogeneity of variance (Antonius, 2013; Cohen et al, 2009), the data also violates the requirement for normal distribution. In violating two of the assumptions, a more cautious approach was adopted, hence the pairwise comparisons.

The Mann-Whitney test was used to examine the difference between each pairing of nationality, and presented below:

Pairwise Comparisons of Nationality

Nationality Pairing	Mann-Whitney U Test
White, Asian/Asian British	U= 6578.500, p> 0.05
White, Black/Black British	U = 1403.500, p < 0.001
White, Chinese	U = 2324.500 p< 0.001
Asian/Asian British, Black/Black British	U = 4430.000 p< 0.001
Asian/Asian British, Chinese	U = 6740.000 p < 0.001
Black/Black British, Chinese	U = 1206.000 p <0.001

The difference in perceptions of skills between Asian/Asian British and White students is of no statistical significance, thus the null hypothesis that there is no difference between the two is retained. The difference in perceptions of skills between all other nationality pairings is statistically significant. With reference to the descriptive statistics it is possible to surmise that Black / Black British Students perceive their skills higher than any other group, and this difference in perception is statistically significant. Further, the Chinese students perceive their skills lower than any other group and this difference in perception is statistically significant, findings which will be discussed in the following chapter.

4.7.1.4 Skills and Institution: All Participants

Descriptive statistics showed little difference in the mean scores.

Descriptive Statistics: Skills and Institution				
		N	Mean	Std. Deviation
SkillsALL As 450	Institution One	181	5.0851	.69805
	Institution Two	269	5.2123	.83780

An independent samples t test was undertaken to test the effects of institution on skills perception. The mean score of students at Institution One did not differ statistically significantly, $t(448) = -1.69$, $p=0.08$ from that of the mean score of students at Institution Two. This result is too weak to reject the null hypothesis that students at the different institutions differ in their perception of skills. In other words, there is no difference in students' perceptions of their skills in relation to their institution of study. In addition, Cohen's effect size value ($d = -0.16$) suggests low practical significance.

4.7.2   Differences in Perceptions of Self-Regulated Learning

Analysis was undertaken to test the impact of gender, nationality, work experience and institution on the perception of self-regulated learning.

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4.7.2.1 Self-Regulated Learning and Gender: All Participants

Descriptive statistics for self-regulated learning and gender are presented below.

Descriptive Statistics: Self-Regulated Learning and Gender			
	N	Mean	Std. Deviation
SELFREG all As 450 male	210	4.8972	.76397
female	240	4.8124	.74340

An independent t test was undertaken to determine the effect of gender on perceived self-regulated learning. The mean scores for males did not differ statistically significantly, t (448) = 1.19, p=0.23 from the mean scores of females. This favours the null hypothesis that there is no difference. In other words there is no evidence to support the idea that male and female students differ in their perception of ability to regulate their own learning. The Cohen's effect size value (d = 0.11) suggests low practical significance.

4.7.2.2 Self-Regulated Learning and Work Experience: All Participants

Descriptive statistics for self-regulated learning and work experience are presented below.

Descriptive Statistics: Self-Regulated Learning and Work Experience			
Y/N WE1a	N	Mean	Std. Deviation
With work experience	329	4.9125	.75246
Without experience	121	4.6873	.73411

The independent t test was undertaken to test the impact of work experience on self-regulated learning. The mean scores for those with work experience is statistically significantly higher t (448) = 2.83, p=0.005 from mean scores of students with no work experience, thus the null hypothesis may be rejected. In other words there is evidence to suggest those with work experience perceive

their ability to regulate their own learning higher than those without work experience. Further, Cohen's effect size value ($d = 0.30$) suggests a moderate effect.

4.7.2.3 Self-Regulated Learning and Nationality: All Participants

The descriptive analysis for the four nationality categories is presented below. The data was tested to determine whether parametric or non-parametric tests should be used. The data met the assumptions required to proceed with parametric tests other than in violating the homogeneity of variances. As such ANOVA was used to determine any difference in group's perceptions of self-regulated learning, followed by post hoc tests to accommodate the lack of homogeneity of variances.

Nationality and Self-Regulated Learning

Self-Regulated Learning and Nationality			
	N	Mean	Std. Deviation
White	70	4.5702	.67307
Asian/AsianBritish	194	4.9394	.79851
Black/BlackBritish	66	5.2306	.70861
Chinese	99	4.6288	.62546

An ANOVA analysis found there was a statistically significant difference between the nationality groupings (F = 13.477, $p<0.001$). Post hoc tests indicated that the differences between Black/Black British students, and the White and Chinese students is statistically significant (p < 0.001, p<0.01, respectively). The difference between White and Chinese students is not statistically significant (p>0.05). It may be concluded that Black/Black British students perceive their self-regulated learning highest of all the nationality groups, again, the numbers are small, thus while the findings are noted, a larger sample size should be sought to be confident of robust analysis.

4.7.2.4 Self-Regulated Learning and Institution: All Participants

Descriptive statistics for self-regulated learning and the impact of Institution are presented below.

Descriptive Statistics: Self-Regulated Learning and Institution				
	INSTITUTION	N	Mean	Std. Deviation
SELFREG all As 450	Institution One	181	4.6729	.62313
	Institution Two	269	4.9724	.80871

The independent t test indicates the difference in the mean scores of students at Institution One and Institution Two in relation to their perception of self-regulated learning is statistically significant, $t(448) = -4.27$, $p<=0.001$. This suggests strongly that the null hypothesis may be rejected, in other words, that students at Institution Two perceive their ability to regulate their own learning higher than do students at Institution One. The Cohen's effect size value ($d = -0.41$) indicates a moderate practical significance.

4.7.3   Differences in Perceptions of Self-Efficacy

Analysis was undertaken to determine the impact of gender, institution, work experience and nationality on perceptions of self-efficacy.

4.7.3.1 Self-Efficacy and Gender: All Participants

Descriptive statistics for self-efficacy and gender are presented below.

Descriptive Statistics: Self-Efficacy and Gender				
	Gender	N	Mean	Std. Deviation
Effic ALL As 450	male	210	5.3887	.93111
	female	240	5.0344	.91791

When tested to determine the appropriateness of using an independent t test, the assumption of normal distribution was violated.

Tests of Normality

	GENDER PR4	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
		Statistic	Df	Sig.	Statistic	df	Sig.
Effic ALL As 450	**male**	.061	210	.059	.979	210	**.003**
	female	.061	240	.032	.991	240	.169

When the Mann-Whitney test was conducted to determine whether there was any statistical difference in the perceptions of self-efficacy between males and females (U=21738.500, p=0.012) a statistically significant difference was found. Thus, the null hypothesis that there is no difference is rejected and with reference to the descriptive statistics, it may be surmised that males perceive their self-efficacy higher than females.

4.7.3.2 Self-Efficacy and Work Experience: All Participants

Descriptive Statistics: Self-Efficacy and Work Experience			
	N	Mean	Std. Deviation
with work experience	329	5.2994	.93584
without experience	121	4.9287	.90006

The means scores indicate those with work experience perceive their self-efficacy higher than those without work experience. Tests of normality suggested non-parametric tests would be more appropriate to interrogate the impact of work experience on self-efficacy.

Tests of Normality		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Y/N WE1a	Statistic	df	Sig.	Statistic	df	Sig.
Effic ALL As 450	**YES**	.065	329	.002	.984	329	**.001**
	NO	.056	121	.200[*]	.993	121	.805

The Mann-Whitney test (U=15402.500, p<0.001) found a statistically significant difference in students' perceptions of self-efficacy between those with, and those without, work experience, which suggest the null hypothesis may be rejected. In other words, those with work experience perceive their self-efficacy to be higher than those with no work experience.

4.7.3.3 Self-Efficacy and Nationality: All Participants

The descriptive statistics for self-efficacy and nationality is presented below:

Descriptive statistics: Self efficacy and Nationality			
	N	Mean	Std. Deviation
white	70	4.9250	.89468
Asian/AsianBritish	194	5.2732	.94383
Black/BlackBritish	66	5.8883	.92459
Chinese	99	4.8232	.72558
Total	429	5.2072	.94960

Tests of normality suggested data was not distributed evenly, and in addition homogeneity of variances ($p < 0.05$) suggested evidence of differing variances in the different groups. Given this, the Kruskal-Wallis test was used to determine whether differences were statistically significant. Calculating the Kruskal-Wallis statistic resulted in the following ($\chi_2 = 60.451$, $p < 0.001$) suggesting a statistically significant difference between the groups.

As before, in order to determine precisely where the difference is statistically significant, pairwise comparisons using Mann-Whitney were undertaken.

Nationality Pairing	Mann-Whitney U Test
White, Asian/Asian British	U= 5410.500, P <0.05
White, Black/Black British	U= 976.500, p <0.001
White, Chinese	U= 3102.000 p>0.05
Asian/Asian British, Black/Black British	U = 3914.500, p < 0.001
Asian/Asian British, Chinese	U = 6783.000 , p < 0.001
Black/Black British, Chinese	U = 1096.000, p<0.001

The difference in perceptions of self-efficacy between White students and Chinese students is of no statistical significance, thus the null hypothesis that there is no difference between the two is retained. The difference in perceptions of self-efficacy between all other nationality pairings is statistically significant. To summarise, the difference in perceptions of self-efficacy between the Black / Black British Students and all other nationality groups is statistically significant.

The difference in perceptions of self-efficacy between Asian/Asian British and the Chinese students, and between the Asian/Asian British Students and the White students is statistically significant, and will be discussed in the following chapter. Returning to the descriptive analysis it is possible to conclude that the Black/Black British students perceive their self-efficacy higher than any other nationality. The Asian/Asian British students perceive their self-efficacy higher than White or Chinese students. While the Chinese students mean score is lowest of all nationalities, this is not significantly lower than the White students.

4.7.3.4 Self-Efficacy and Institution: All Participants

The means scores suggest students at Institution Two perceive their self-efficacy higher than those at Institution One.

Self-Efficacy and Institution				
	INSTITUTION	N	Mean	Std. Deviation
Effic ALL As 450	Institution One	181	4.9061	.88544
	Institution Two	269	5.3973	.92518

Descriptive analysis indicates that the means scores of students at Institution Two are higher than the mean scores of those at Institution One, in terms of perceived self-efficacy.

Tests of normality suggested non-parametric tests would be more appropriate to interrogate the impact of Institution on self-efficacy.

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	INSTITUTION	Statistic	Df	Sig.	Statistic	df	Sig.
Effic ALL As 450	One	.072	181	.025	.991	181	.340
	Two	.061	269	.017	.983	269	**.002**

The Mann-Whitney test (U=16995.500, p<0.001) found the difference to be statistically significant which suggests the null hypothesis may be rejected. In other words, students at Institution Two perceive their self-efficacy higher than those at Institution One.

4.8 Differences in groups within the student population on commencement of the programme.

The previous section has explored the perceptions of the research population as a whole (n=450) in terms of the perceptions of skills, self-regulated learning and self-efficacy. What this section covers is a closer examination of students' perceptions at the start of their studies.

The same conventions were followed in terms of analysis as described earlier. In sum, where data meets the assumptions required for parametric tests either the independent test, or ANOVA is used.

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Where assumptions is/are violated the non-parametric equivalent is used, and noted in the presentation of the findings. It should be noted here that, as the focus is on the programme start, the number of students involved in analysis is 152. Given that nationality has four categories there is potential for number of cases in a group to fall below 30 which is considered small for statistical testing purposes (Saunders et al, 2009; Cohen et al, 2012). As such the analysis here will be reviewed with particular attention to the number of cases in each group, and discussed accordingly.

4.8.1   Skills Scale at the Start of Programme

4.8.1.1 The Impact of Gender

An independent samples t test was conducted to test the effects of gender on skills at the start of the programme. Mean scores showed little difference in skills.

Descriptive Statistics: Gender and Skills at the Start of the Programme			
	N	Mean	Std. Deviation
Male	75	5.2773	.81995
Female	77	5.1714	.86524

There was no statistically significant difference between group means as determined by the independent t test, t (150) =0.74, p>0.05. Significance is 0.44 which favours the null hypothesis. In other words there is no evidence to support the idea that male and female students differ in their perception of skills at the start of the programme. Further, Cohen's effect size value (d = 0.13) suggest little practical significance.

4.8.1.2 The Impact of Work Experience

The mean scores suggest those with work experience rate themselves higher in terms of their skills at the start of the programme, than those without work experience.

Descriptive Statistics: Skills, Programme Start and Work Experience			
	N	Mean	Std. Deviation
With work experience	120	5.3375	.83001
With no work experience	32	4.7969	.75583

The independent t test conducted to test the effects of work experience on skills at the start of the programme resulted as follows t (150) = 3.33, $p<0.05$. This is statistically significant which suggests there is evidence to reject the idea that there is no difference in perceived skills between those with, and those without, work experience. In other words, analysis suggests those with work experience perceive their skills higher, than those without work experience, at the start of their studies. In addition, Cohen's effect size value ($d = 0.68$) suggest a moderate to high effect.

4.8.1.3 The Impact of Nationality

Descriptive statistics for the nationality grouping is presented as follows,

Nationality and skills at the start of the programme			
	N	Mean	Std. Deviation
white	18	5.0333	.53247
Asian/AsianBritish	82	5.2049	.88176
Black/BlackBritish	24	5.7667	.92908
Chinese	21	4.8476	.61613
Total	145	5.2248	.85785

Data was not found to be normally distributed for all groups.

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Shapiro-Wilk test of Normality: Skills Scale Start and Nationality

Nationality	Number of respondents	sig
White	18	0.04
Asian/Asian British	82	0.43
Black/Black British	24	0.006
Chinese	21	0.33

Given the strength of significance level, and the small sample numbers, it was decided to use the Kruskal-Wallis test to explore differences between the groups, which gave the following result ($\chi_2 = 17.268$, $p < 0.001$). This suggests a statistically significant difference between the groups, which is explored further using pairwise comparisons, as follows:

Nationality Pairing	Mann-Whitney U Test
White, Asian/Asian British	U= 633.000, p> 0.05
White, Black/Black British	U = 84.500, p<0.001
White, Chinese	U = 153.500 p>0.05
Asian/Asian British, Black/Black British	U = 612.500, p < 0.05
Asian/Asian British, Chinese	U = 631.000 p> 0.05
Black/Black British, Chinese	U = 79.500 p < 0.001

The difference in perceptions of skills among nationality groupings is significant in some cases. The difference in perception between the Black/Black British students and all other nationality groupings is statistically significant. Between other pairings, the differences are not significant. This is consistent with the findings for the impact of nationality on gender for the entire research population (4.6.1.3) however, it should be noted that the numbers in some groups in this element of analysis are small. As such, while noting the finding, a larger sample size is required to make more of such a result.

4.8.1.4 The Impact of Institution

As noted earlier, participants were drawn from two institutions. The means scores suggest little difference in how students at the two institutions perceive themselves in terms of their skills at the start of the programme.

Descriptive Statistics: Skills, Programme Start and Institution			
	N	Mean	Std. Deviation
Institution One	52	5.1519	.72693
Institution Two	100	5.2610	.89735

There was no statistically significant difference between group means as determined by the independent t test t (150) = -0.808, $p>0.05$. Significance is 0.42 which suggests no significant difference in how the students at the two institutions perceive their skills at the start of the programme. In addition, Cohen's effect size value $(d = -0.1)$ indicated low practical significance.

4.8.2 Self-Regulated Learning Scale variations at start of programme

4.8.2.1 The Impact of Gender

Mean scores showed minimal difference between males and females regard their self-regulated learning at the start of the programme.

Descriptive Statistics: Self-Regulated Learning, Programme Start and Gender			
	N	Mean	Std. Deviation
male	75	4.9133	.77067
female	77	4.8448	.87955

The independent t test showed no statistically significant difference between group means t (150) = 0.51, p>0.05. This suggests no statistical significance in the difference between male and female students in how they perceive their self-regulated learning at the start of the programme. In addition, Cohen's effect size value ($d = $ 0.08) suggesting low practical significance.

4.8.2.2 The Impact of Work Experience

The mean scores suggest those with work experience rate themselves higher in terms of their perception of the ability to regulate their own learning at the start of the programme, than those without work experience.

Descriptive Statistics: Self-Regulated Learning, Programme Start and Work Experience			
	N	Mean	Std. Deviation
With work experience	120	4.9713	.81180
With no work experience	32	4.5312	.79530

The independent t test conducted - t (I50) = 2.74, $p<0.05$. Significance is 0.007 suggesting strong evidence to reject the null hypothesis. Thus, analysis indicates students with work experience perceive their ability to manage their own learning higher than those without work experience. Further, Cohen's effect size value $(d = 0.55)$ suggests a moderate effect.

4.8.2.3 The Impact of Nationality

The means scores suggest Black/Black British students perceive their ability to regulate their own learning the highest of all the nationality groupings.

Nationality and Self-regulated learning at the start of the programme			
	N	Mean	Std. Deviation
white	18	4.2685	.61673
Asian/AsianBritish	82	4.9319	.86940
Black/BlackBritish	24	5.4328	.61288
Chinese	21	4.5833	.67134
Total	145	4.8820	.83946

Given that the data was found to be sufficiently normally distributed so as not to violate assumptions for ANOVA, and given the homogeneity of variances (p> 0.05), parametric tests were undertaken to test differences.

The ANOVA found there was a statistically significant difference between how those of different nationalities perceive their ability to regulate their learning at the start of their programme (F = 8.884, *p*= <0.001), and the effect size was strong at 0.15. Post hoc tests indicated that the differences between Black/Black British students and the White, Asian/Asian British and Chinese students is statistically significant (p = < 0.001, p=0.03, p= 0.002 respectively). The difference between White and Asian/Asian British students is statistically significant (p=0.007). The difference between White and Chinese students is not statistically significant (p>0.05). It may be concluded that Black/Black British students perceive their self-regulated learning highest of all the nationality groups, while the Asian/Asian British Students perceive their self-regulated learning higher than White and/or Chinese students. Again, the numbers are small, thus while the findings are noted, a larger sample size is needed to be confident of robust analysis.

4.8.2.4 The Impact of Institution

The mean scores suggest students at Institution 2 rate their ability to regulate their own learning higher than those at Institution 1, as they commence the programme.

Descriptive Statistics: Self-Regulated Learning, Programme Start and Institution			
	N	Mean	Std. Deviation
Institution 1	52	4.6132	.71410
Institution 2	100	5.0167	.84893

The independent t test to determine significance of differences resulted in the following   t (150) = -2.293, $p<0.05$, which suggests the difference is statistically significant. Significance is 0.004 which is strong evidence to reject the null hypothesis. Further, Cohen's effect size value (d = 0.51) suggests a moderate effect. Thus, analysis suggests that at the start of their respective studies, students at Institution Two perceive their ability to manage their learning higher than students at Institution One.

4.8.3   Self-Efficacy Scale variations at start of programme

4.8.3.1 The Impact of Gender

Descriptive statistics note the mean scores of males to be higher than those of females in terms of perception of self-efficacy, at the start of the programme.

Descriptive Statistics: Self-efficacy, Programme Start and Gender			
	N	Mean	Std. Deviation
male	75	5.4883	.83756
female	77	5.1510	.96385

The independent t test shows t (150) = 2.301, p< 0.05. Significance is 0.02 which suggest the difference is of statistical significance, and that the null hypothesis may be rejected. In other words analysis suggests males perceive themselves to be more self-efficacious at the start of the programme than females. Cohen's effect size value ($d = 0.37$) suggests a modest effect.

4.8.3.2 The Impact of Work Experience

The mean score suggests those with work experience perceive themselves as more self-efficacious than those without work experience.

Descriptive Statistics: Self-efficacy, Programme Start and Work Experience			
	N	Mean	Std. Deviation
With work experience	120	5.3875	.88320
With no work experience	32	5.0547	1.00349

The independent t test shows t (150) = 1.840, p> 0.05. Where significance is 0.68 which suggest the difference is of no statistical significance. In other words analysis suggests those with work experience perceive themselves to be no more self-efficacious than those without work experience. Cohen's effect size value (d = 0.35) suggests this to be a weak to modest effect.

4.8.3.3 The Impact of Nationality

The descriptive statistics indicate Black/Black British Students perceive their self-efficacy highest of all the nationality groupings, the White students the lowest.

Self-efficacy and nationality at the start of the programme				
	N	Mean	Std. Deviation	Minimum
white	18	4.8125	.73296	3.88
Asian/AsianBritish	82	5.3018	.94464	2.63
Black/BlackBritish	24	6.0573	.77493	4.25
Chinese	21	5.0298	.67651	3.63

ANOVA found there was a statistically significant difference between nationality groupings at the start of their programme in terms of perceptions of self-efficacy (F= 8.768, p <0.001), and the effect size was large at 0.15.

Post hoc tests indicated that the differences between Black/Black British students and the White, Asian/Asian British and Chinese students is statistically significant (p = < 0.001, p=0.001, p= 0.001respectively). There was no statistically significant difference between any of the other nationality groupings. This would suggest the Black/Black British students' perceptions of self -

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efficacy are significantly higher than those of the other nationality groupings. Again, mindful of the small sample size in some of the groups caution should be exercised against inferring too much from these findings.

4.8.3.4 The Impact of Institution

Descriptive analysis indicates the mean score of students at the second institution perceive their self-efficacy to be higher than those students at Institution 1, at the start of the programme.

Descriptive Statistics: Self-efficacy, Programme Start and Institution			
	N	Mean	Std. Deviation
Institution 1	52	5.0817	.87057
Institution 2	100	5.4400	.92001

The independent t test shows t (150) = -2.32, p< 0.05. Significance is 0.02 which suggests the null hypothesis may be rejected. Further, Cohen's effect size value (d = -0.4) suggests a modest effect. In other words, the difference in perceptions of self-efficacy between students studying at the separate institutions' at the start of their studies, is significant. The descriptive statistics indicate students at Institution Two perceive themselves to be more self-efficacious than those at Institution One, as they start their studies.

4.9   Differences in groups within the student population on completion of the Programme

The previous section has explored the perceptions of the research population at the start of their studies in terms of the perceptions of skills, self-regulated learning and self-efficacy. What this section covers is a closer examination of students' perceptions at the end of their taught

programme. As described earlier, the same conventions were followed in terms of analysis. In sum, where data meets the assumptions required for parametric tests either the independent test, or ANOVA is used. Where assumptions is/are violated the non-parametric equivalent is used, and noted in the presentation of the findings. As with the previous section, the number of cases is to be noted. Specifically, as this section deals with the end of the taught programme, the number of students involved in analysis n=109. Again, attention is drawn to the potential for the number of cases in a group to fall below 30 which is considered small for statistical testing purposes (Saunders et al, 2009, Cohen et al, 2012). This will be noted should this occur, and discussed accordingly.

4.9.1   Skills Scale on Completion of the Programme

4.9.1.1 The Impact of Gender

The mean scores suggest little difference between males and females as to how they perceive their skills on completion of the taught programme.

Descriptive Statistics: Skills, Programme End and Gender			
	N	Mean	Std. Deviation
Male	44	5.1295	.74321
Female	65	5.0000	.73015

The independent t test confirms that what little difference there is not significant statistically

t (107) = 0.902, p> 0.05. In addition, Cohen's effect size value (d = 0.17) indicates a weak effect. Thus, analysis indicates there is no difference in perceptions of skills between genders on completion of the taught programme.

This is the same result as was found at the start of the programme in that while males perceive their skills higher, the difference between males' scores and females' scores is not large enough to be considered significant. In addition, the means for both have decreased.

4.9.1.2 The Impact of Work Experience

Descriptive analysis shows that on completion of the taught programme the mean scores of students in relation to their perception of skills are higher for those with work experience, than for those without work experience.

Descriptive Statistics: Skills, Programme End and Work Experience			
	N	Mean	Std. Deviation
With work experience	66	5.1864	.73629
With no work experience	43	4.8465	.69122

The Independent t-test t (107) = 2.412, p< 0.05. As significance is 0.01 this suggests there is evidence to reject the null hypothesis, while Cohen's effect size value ($d = 0.47$) suggests this to be a modest to moderate effect. In other words analysis indicates that those with work experience perceive their skills to be higher than those without work experience, on completion of the taught part of the programme. This is the same result as was found at the start of the programme in that those with work experience score higher than those without. The descriptive statistics indicate the mean score for skills is higher for those with work experience at the start of the programme than at the end, while the opposite is true for those without work experience (the mean score for those without work experience is higher following the programme). This suggests the programme has an impact on those without work experience, which will be revisited fully in the following chapter.

4.9.1.3 The Impact of Nationality

The descriptive analysis indicates Black/Black British Students perceive their skills highest of the four nationality groupings.

Nationality and Skills at the End of the Programme			
	N	Mean	Std. Deviation
white	23	5.1957	.81099
Asian/AsianBritish	38	5.0789	.76199
Black/BlackBritish	12	5.4167	.65204
Chinese	30	4.7233	.58996

ANOVA found there was a statistically significant difference between nationality groupings on completion of the programme in terms of perceptions of skills (F= 3.465, p <0.05), and the effect size was 0.09 suggesting a moderate effect.

Post hoc tests indicated that the differences between Black/Black British students and Chinese students is statistically significant (p = < 0.05). There was no statistically significant difference between any of the other nationality groupings. Again, mindful of the small sample sizes this is noted, and suggests an opportunity for further research in order to make more of this result.

4.9.1.4 The Impact of Institution

The mean scores show very little difference between students' perceptions of skills, in relation to their institution.

Descriptive Statistics: Skills, Programme End and Institution			
	N	Mean	Std. Deviation
Institution One	67	5.0881	.70957
Institution Two	42	4.9952	.77866

The independent t test t (107) = 0.640, p> 0.05, shows the difference is of no statistical significance, in favour of the null hypothesis. Further, the Cohen's effect size value (d = 0.12) indicates this to be a weak effect. As such, the conclusion may be drawn that there is no difference in perceptions of skills between the students at different institutions. This is the same result as at the start of the programme. Further, the trend in perception, as evident in the descriptive scores, shows a slight decrease in the perceived skills of students at both institutions.

4.9.2   Self-Regulated Learning on Completion of the Programme

4.9.2.1 The Impact of Gender

The descriptive analysis indicates males perceive their ability to self-regulate learning marginally higher than females, on completion of the taught programme.

Descriptive Statistics: Self-regulated Learning, Programme End and Gender			
	N	Mean	Std. Deviation
Male	44	4.8239	.65671
Female	65	4.7846	.63634

The independent t test t (107) = 0.312, p> 0.05 suggests the difference is of no statistical significance, and Cohen's effect size value (d = 0.06) indicates weak effect, thus there is no evidence to reject the null hypothesis. This suggests there is no difference between males and females in terms of how they perceive their self-regulated learning on completion of the taught programme. This lack of difference is the same result as was found at the start of the programme. The descriptive statistics indicate a downward trend which though very small (mean differences

0.09 at Institution 1, 0.06 at Institution 2) suggests both genders' perception of their ability to regulate learning is not increased after engaging with the taught programme.

4.9.2.2 The Impact of Work Experience

Students with work experience rate their ability to regulate learning marginally higher than those without, on completion of the taught programme.

Descriptive Statistics: Self-regulated Learning, Programme End and Work Experience			
	N	Mean	Std. Deviation
With work experience	66	4.8409	.64727
With no work experience	43	4.7384	.63610

The independent t test, t (107) = 0.814, p> 0.05 indicates that this difference is of no statistical significance. The Cohen's effect size value (d = 0.12) suggests a weak effect, thus there is no evidence to reject the null hypothesis. In other words, students with work experience perceive their ability to regulate their learning no differently than from those without work experience.

This is a different result than was evident at the start of the programme where those with work experience perceived their self-regulated learning significantly higher than those without. That this difference no longer exists suggests a narrowing of the gap, in that engaging with the programme has enhanced the perception of self-regulated learning in particular among students lacking in work experience. Further, the trend for those with work experience is downwards, as descriptive statistics indicate a lower mean score for those with work experience after engaging with the programme. Though the difference in means is small (0.13), it suggests in this respect the programme is having no positive impact for this group which has important implications for the findings, to be discussed in the following chapter.

4.9.2.3 The Impact of Nationality

Descriptive statistics are presented below.

Self-regulated learning and nationality at the end of the programme			
	N	Mean	Std. Deviation
white	23	4.5906	.70662
Asian/AsianBritish	38	4.9123	.65701
Black/BlackBritish	12	5.0694	.55486
Chinese	30	4.6889	.60487

Given the normal distribution ANOVA was conducted and found that differences between the nationality groups in terms of perceptions about ability to regulate learning were not statistically significant (F= 2.196, p >0.05) and the effect size was moderate at 0.062, following Cohen's conventions for ANOVA effect size (Burns, 2000). (It should be noted that this result was further checked using non-parametric tests, given the apparent distance between means, and the same result was found. It may be concluded that this could be due to the small sample size, hence there should be caution in setting too much store by this result, as is noted in the summary of findings later in this chapter.)

4.9.2.4 The Impact of Institution

Descriptive analysis indicates that students at Institution 2 perceive their ability to regulate their learning marginally higher than those at Institution 1, on completion of the taught programme.

Descriptive Statistics: Self-regulated Learning, Programme End and Institution			
	N	Mean	Std. Deviation
Institution 1	67	4.7537	.55152
Institution 2	42	4.8750	.76581

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The independent t test t (107) = -0.960, p> 0.05 suggests this difference is of no statistical significance, thus there is no evidence to reject the null hypothesis. In addition the Cohen's effect size value ($d = 0.18$) indicates a weak effect. The analysis indicates there is no significance in how students at the different institutions perceive their ability to regulate learning on completion of their taught programme.

This result differs from that which was found at the start of the programme where students at Institution 2 perceived their self-regulated learning significantly higher than those at Institution 1. This result, that the difference is now as small as to be insignificant, suggests that engaging with the programme has had more of an impact on the perception of self-regulated learning among students at Institution 1. Descriptive statistics support this as mean score for the Institution 1 students is higher than at the start, while the mean score decreases among students at Institution 2 suggesting the latter feel less able to regulate learning after the taught programme.

4.9.3 Self-Efficacy on Completion of the Programme

4.9.3.1 The Impact of Gender

The descriptive analysis indicates males feel slightly more efficacious than females on completion of their taught programme.

Descriptive Statistics: Self-efficacy, Programme End and Gender			
	N	Mean	Std. Deviation
Male	44	5.0795	.91503
Female	65	4.9000	.85330

The independent t test where t (107) = 1.047, p> 0.05 suggests this difference is of no statistical significance, finding in favour of the null hypothesis. Cohen's effect size value (d = 0.2) suggest a

weak effect. Thus, analysis indicates that males and females do not perceive their self-efficacy differently on completion of their taught studies.

This is a different result than was found at the start of the programme where males perceived their self-efficacy significantly higher than females. As this difference no longer exists, this implies that the programme has had a greater impact on females than males in this context. Though the mean scores are lower for both males and females, which suggests the programme has not had the positive impact on perceptions of self-efficacy as would be hoped and expected, the difference in the males' mean scores from the start of the programme to the end, is almost double that of the females over the same period. Thus, while the result suggests neither group is experiencing a positive change in their perception of self-efficacy, the trend for males shows their perceptions to have dipped more sharply than females. Why this may be the case will be discussed in the following chapter.

4.9.3.2 The Impact of Work Experience

The descriptive statistics indicate those with work experience have higher levels of self-efficacy on completion of the programme, than those with no work experience.

Descriptive Statistics: Self-efficacy, Programme End and Work Experience			
	N	Mean	Std. Deviation
With work experience	66	5.0985	.90366
Without work experience	43	4.7791	.81231

The Independent t test, t (107) = 1.876, p> 0.05 suggests this difference is not statistically significant. Significance is 0.06 which indicates a weak result, but still favours the null hypothesis. Cohen's effect size value (d = 0.36) suggest a weak to moderate effect. This result is the same as was found at the start of the programme where the higher mean score of those with work experience was found to be of no statistical significance. However, there is a difference in strength

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of significance, in that at the start of the programme $p=0.68$, whereas now $p = 0.06$. In other words, the evidence, now, to retain the null hypothesis, is weaker than earlier.

Descriptive analysis indicates a downward trend for both those with and without work experience. What this implies is that engaging with the programme is not having a positive impact on the perceived self-efficacy of students regardless of whether or not they have work experience.

4.9.3.3 The Impact of Nationality

Descriptive statistics are presented below.

Self-efficacy and nationality at the end of the programme			
	N	Mean	Std. Deviation
white	23	4.9728	1.02799
Asian/AsianBritish	38	5.0921	.92300
Black/BlackBritish	12	5.3646	.81961
Chinese	30	4.6667	.70278

ANOVA found that differences between the nationality groups in terms of perceptions about self-efficacy were not statistically significant (F= 2.241, p >0.05), however, the effect size was moderate at 0.06, following Cohen's conventions for ANOVA effect size (Burns, 2000). As noted earlier, the small sample size suggests caution when reading into this result.

4.9.3.4 The Impact of Institution

The descriptive statistics suggest little difference in the different institutions' students' perceptions of efficacy, on completion of their taught programme.

Descriptive Statistics: Self-efficacy, Programme End and Institution			
	N	Mean	Std. Deviation
Institution 1	67	4.9011	.88296
Institution 2	42	5.0863	.87107

This is supported by the independent t test, t (107) = -1.071, p> 0.05 which suggests there is no evidence to reject the null hypothesis. Further, Cohen's effect size value (d = -0.2) suggest the effect to be weak. In other words, there is no difference in students' perceptions of self-efficacy as regards the institution attended.

This result is different from that which was found at the start of the programme where students at Institution 2 perceived their self-efficacy significantly higher than those at Institution 1. The analysis suggests that at this point, even though the mean score is still higher for Institution 2, the difference is now so small as to be insignificant. Descriptive statistics show a downward trend for both groups of students which suggest neither group feel more self-efficacious after the taught programme than at the start. The mean score for Institution 1falls by 0.18, the mean score for Institution 2 by double that figure (0.36). What this suggests is that neither institution is making a positive impression on students' perceptions of self-efficacy, with students at Institution 2 feeling less of an impact.

4.10   Correlation Between Scales

Analysis was undertaken to ascertain whether there was a relationship between skills, self-regulation of learning and self-efficacy. Drawn from the literature, this analysis was to determine whether there is a relationship between skills and self-efficacy, between skills and self-regulated learning, and between self-efficacy and self-regulated learning, and if so, the direction and strength of those relationships.

4.10.1   Correlation of Skills and Self-Regulated Learning

A scatterplot constructed to present the responses of the skills and self-regulated learning scales (Fig 48) suggests a relationship between the two, which appears to be a positive correlation.

Fig 48   Correlation of Skills and Self-Regulated Learning

Correlation of Skills and Self Regulation for 450 Students

Skills Scale (y-axis), Self Regulation Scale (x-axis)
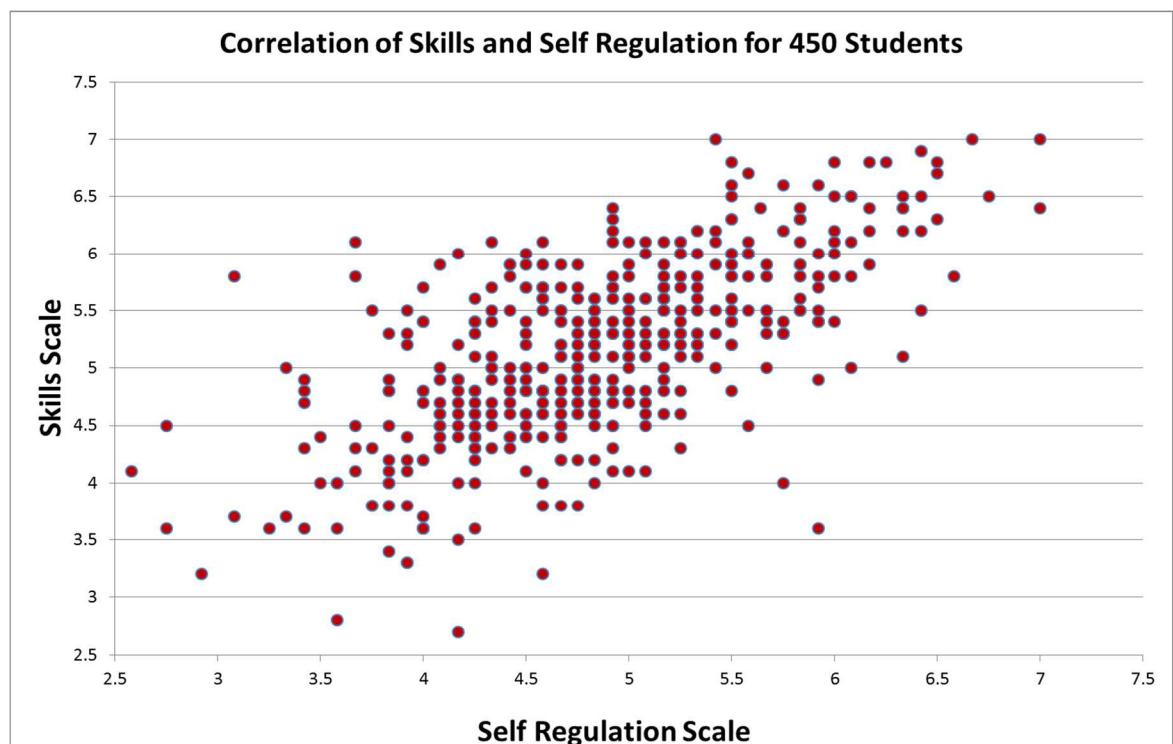
Analysis was undertaken to explore the correlation between skills and self-regulated learning.

Skills and Self-Regulation Correlation	
Pearson Correlation	.669**
Sig. (2-tailed)	.000
N	450

**. Correlation is significant at the 0.01 level (2-tailed).

There is a statistically significant strong positive relationship between skills and self-regulated learning ($r = 0.669$, $p<0.001$). This supports the hypothesis that there is a linear correlation between these two variables. In other words, students who perceive their skills highly, perceive their ability to regulate their learning highly.

4.10.2 Correlation of Skills and Self Efficacy

A scatterplot was constructed to examine the relationship between the scales of self-efficacy and skills.

Fig 49   Correlation of Skills and Self Efficacy

Correlation of Skills and Self Efficacy for 450 Students
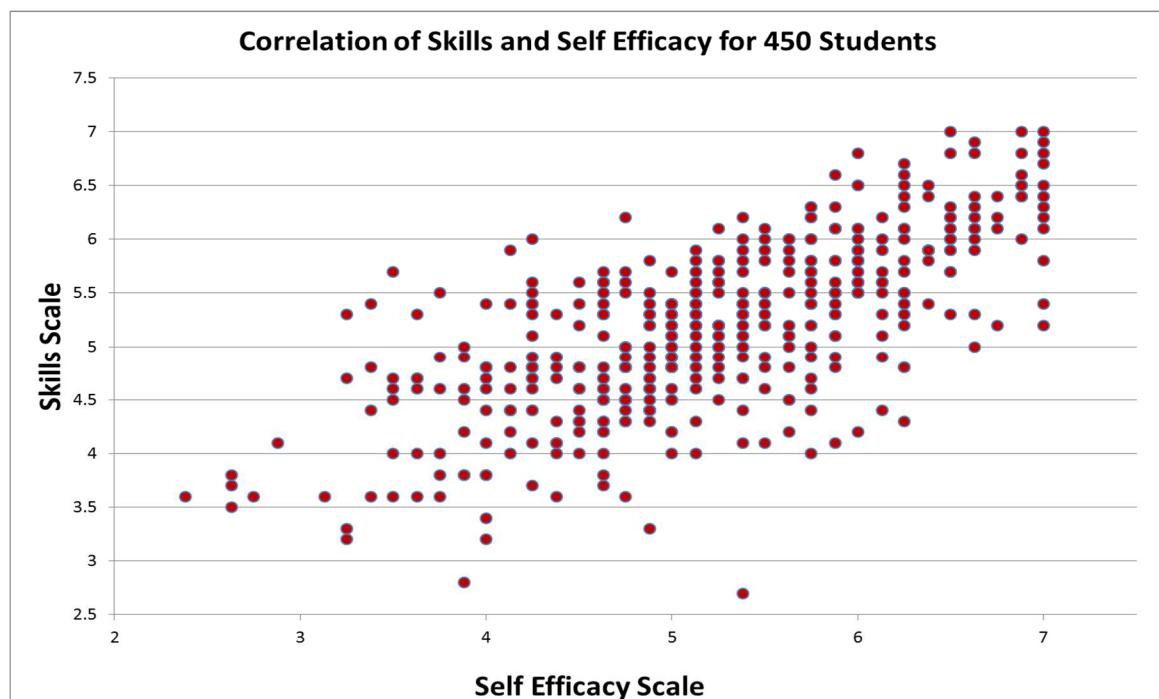
Fig. 49 suggests there is a relationship which appears to be a positive correlation.

Analysis was undertaken to determine correlation between skills and self-efficacy.

Skills and Self Efficacy Correlation	
Pearson Correlation	.701**
Sig. (2-tailed)	.000
N	450

**. Correlation is significant at the 0.01 level (2-tailed).

There is a statistically significant strong positive relationship between skills and self-regulated learning ($r = 0.700$, $p<0.001$). This supports the hypothesis that there is a linear correlation between these two variables. In other words, students who have high perceptions of skills have high perceptions of self-efficacy.

4.10.3 Correlation of Self-regulated Learning and Self Efficacy

A scatterplot was constructed to examine the relationship between the scales of self-regulated learning and self-efficacy.

Fig 50 Correlation of Self-regulated Learning and Self-efficacy
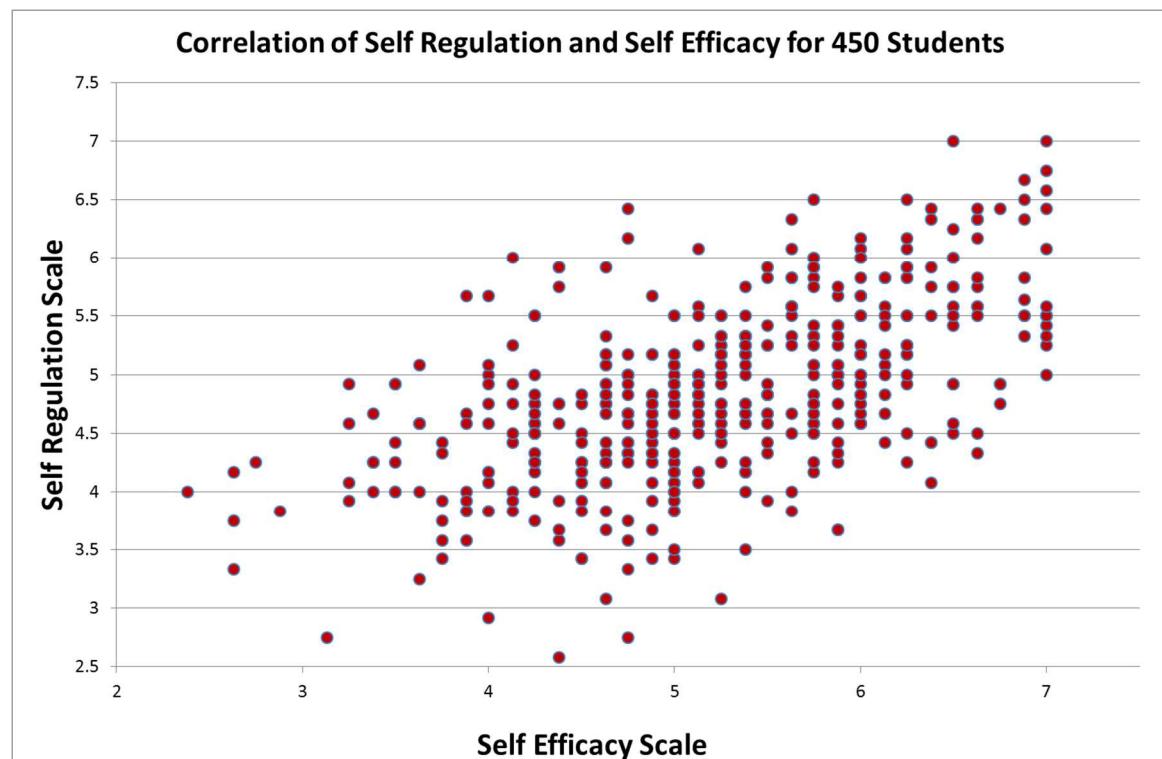
Fig 50 suggests there is a relationship which appears to be a positive correlation.

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Analysis was undertaken to determine correlation between self-regulated learning and self-efficacy.

Self-regulated Learning and Self Efficacy Correlation	
Pearson Correlation	.574**
Sig. (2-tailed)	.000
N	450

**. Correlation is significant at the 0.01 level (2-tailed).

There is a statistically significant moderate positive relationship between self-regulated learning and self-efficacy ($r = 0.574$, $p<0.001$). This supports the hypothesis that there is a linear correlation between these two variables. In other words, students who have high perceptions of self-efficacy perceive themselves able to self-regulate their learning.

4.11   Tracked surveys

As noted earlier there is a subset of the data which comprises 159 students who have answered the survey on two occasions, either start-end or mid-end of the taught programme. Analysis of these surveys enables a direct comparison of responses to be made, to determine change in the mean scores of the three scales over time. Statistical analysis was undertaken to determine whether students perceived themselves as having higher levels of skills, self-regulated learning and self-efficacy after engaging in the taught programme.

4.11.1 Skills Scale: Tracked Surveys

A paired samples t test showed little difference in perceived skills at the end of the taught programme (M=5.22, SD=0.78) than when surveyed earlier in the taught programme (M=5.21, SD=0.86), t (158) =0.53, $p>0.05$. Significance is 0.88 which, though low favours the null hypothesis, that there is no difference in the mean scores.

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4.11.2 Self-regulated Learning Scale : Tracked Surveys

A paired samples *t* test showed little difference in perceived self-regulated learning at the end of the taught programme (M=4.83, SD=0.72) than when surveyed earlier in the taught programme (M=4.85, SD=0.81), t (158) =-0.22, *p* >0.05. Significance is 0.81 which, again favours the null hypothesis, that there is no difference in the mean scores.

Descriptive observation of the means notes the mean goes down at the end of the taught programme, albeit slightly, which would not be expected.

4.11.3 Self-Efficacy Scale: Tracked Surveys

A paired samples *t* test showed little difference in perceived self-efficacy at the end of the taught programme (M=5.51, SD=0.89) than when surveyed earlier in the taught programme (M=5.24, SD=0.97), t(158)=-1.41,*p* >0.05. Significance is 0.16 which favours the null hypothesis, that there is no difference in the mean scores.

4.11.4. Analysis of Tracked surveys to predict relationships among variables.

Logistics regression was undertaken with the perceived increase in skills, self-regulated learning and self-efficacy as dependent variables, and gender, institution, work experience (defined yes/no), nationality (defined home or international) and programme of study as the predictor variables. In the research, a range of thirteen programmes of study was represented (see Chapter 3) plus a small number of students undertaking the MBA. Regression analysis was limited to those students who had answered the questionnaire on two occasions in order that there could be a direct comparison in responses. All students within this subset were studying on the full time mode, none on the MBA.

In using the categorical variable 'programme of study' as a predictor it was necessary to create dummy variables. Prior to creating dummy variables the 13 programmes were grouped into 5 to facilitate the analysis. These groupings were created where programmes have an obvious link. Each programme incorporates management (as discussed in Chapter 3). Subsequent groupings were created where programmes had a finance theme, an international theme, incorporated organisational functions and comprised Business/Management. Following Field (2013), the programme representing the majority of students was retained as the baseline group, and four dummy variables created.

As noted, the regression analysis was limited to a subset of students whose responses could be matched start/end taught programme and mid/end taught programme. This subset of the data comprises 48 students who responded at the start and at the end of their taught programme, and 111 students who responded at the mid-point and at end of the programme. The results of the analysis are presented below.

There is no absolute recommendation as to the number of cases of data compared to the number of predictors in the model though ten per predictor is a common rule of thumb (Field, 2013).

As may be seen from the results of the analysis, two of the results suggest the model is not a good fit which undermines the value of results in these two cases. Given the small sample size it was decided to re-run the analysis without the programme name to reduce the number of variables in the model. These results are presented below. The rationale for reducing the number of variables thus is in that, as noted in Chapter 3 the programmes in this study contain a degree of overlap and shared modules, and collectively have a common spine of management. As such, and in order to make more sense of what the analysis may show, the specific programme name was removed as a variable on the basis this would unnecessarily dilute the analysis.

Results with nine predictor variables.

4.11.4.1 Skills Scale

A logistics regression was undertaken with perceived increase in skills as the dependent variable and gender, institution, work experience (defined yes/no), nationality (defined home or international) and programme of study as predictor variables. A total of 48 cases were analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared = 1.56, df =6, p=0.96). The model accounted for between 16.4% and 22% of the variance in increase in skills status, with 85.2% of the no increase in skills responses successfully predicted. 38.1% of predictions for the increase in skills responses were accurate. Overall 64.6% of predictions were accurate. Presented below are the coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables, indicating that none of the predictor variables significantly predict an increase in skills status.

		B	S.E.	Wald	df	Sig.
Step 1[a]	INSTITUTION(1)	-20.174	40192.991	.000	1	1.000
	HOME(1)	-2.179	1.295	2.834	1	.092
	GENDERPR4(1)	.912	.767	1.412	1	.235
	YNWE1a(1)	1.037	.766	1.834	1	.176
	MgtFUNC	-2.108	1.592	1.752	1	.186
	MgtFINANCE	20.510	40192.991	.000	1	1.000
	MgtBM	18.624	40192.991	.000	1	1.000
	InternationalBandM	19.974	40192.991	.000	1	1.000
	Constant	1.151	1.291	.794	1	.373

A second logistics regression was undertaken with perceived increase in skills as the dependent variable and gender, institution, work experience (defined yes/no), nationality (defined home or international) and programme of study as predictor variables. A total of 111 cases were analysed representing the students who had completed the questionnaire mid-programme and at the end of their taught programme of study.

The Homer and Lemeshow test (chi-squared =18.08, df=8, p= 0.02) indicated that the model did not adequately fit the data, though the omnibus tests (chi-squared=6.8, df=8, $p = 0.55$) indicate the model is a good fit. For completeness analysis was undertaken. The model accounted for between 6% and 8% of the variance in increase in skills status, with 67.2% of the no increase in skills responses successfully predicted. 58.5% of predictions for the increase in skills responses were accurate. Overall 63.1% of predictions were accurate. Presented below are the coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables, indicating that none of the predictor variables significantly predict an increase in skills status, though, as noted this analysis could not be considered sound.

		B	S.E.	Wald	df	Sig.
Step 1[a]	INSTITUTION(1)	-.608	.907	.450	1	.502
	HOME(1)	-.580	.569	1.040	1	.308
	GENDERPR4(1)	.433	.430	1.011	1	.315
	YNWE1a(1)	.754	.495	2.322	1	.128
	MgtFUNC(1)	-.719	.833	.745	1	.388
	MgtFINANCE(1)	-1.600	1.099	2.119	1	.145
	MgtBM(1)	-1.585	1.186	1.786	1	.181
	internationalBandM(1)	-1.017	1.019	.998	1	.318
	Constant	4.491	3.548	1.602	1	.206

Binary logistics regression with reduced number of variables

As noted above, given the small sample size it was decided to re-run the analysis for the data collected start and end of the taught programme (48 cases) without the programme name to reduce the number of variables in the model. For the sake of completion the analysis was also run for those responses collected mid and end taught programme. These results are presented below.

4.11.4.2 Skills Scale – reduced number of variables

A logistics regression was undertaken with perceived increase in skills as the dependent variable and gender, institution, work experience (defined yes/no) and nationality (defined home or international) as predictor variables. A total of 48 cases were analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study. The model indicates a good fit (Hosmer and Lemeshow test chi-squared = 4.73, df =6, p=0.58). The model accounted for between 8.9% and 11% of the variance in increase in skills status, with 77.8% of the no increase in skills responses successfully predicted. 42.9% of predictions for the increase in skills responses were accurate. Overall 62.5% of predictions were accurate. Presented below are the coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables, indicating that none of the predictor variables significantly predict an increase in skills status.

Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1a	INSTITUTION(1)	-.233	.644	.130	1	.718	.792
	HOME(1)	-1.421	.990	2.062	1	.151	.241
	GENDERPR4(1)	.715	.679	1.107	1	.293	2.044
	YNWE1a(1)	.790	.695	1.290	1	.256	2.203
	Constant	.436	.975	.200	1	.654	1.547

a. Variable(s) entered on step 1: INSTITUTION, HOME, GENDERPR4, YNWE1a.

A second logistics regression was undertaken with perceived increase in skills as the dependent variable and gender, institution, work experience (defined yes/no), nationality (defined home or international) and programme of study as predictor variables. A total of 111 cases were analysed representing the students who had completed the questionnaire mid-programme and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared =9.83, df=6, p= 0.13). The model accounted for between 35% and 47% of the variance in increase in skills status, with 67.2% of the no increase in skills responses successfully predicted. 52.8% of predictions for the increase in skills responses were accurate. Overall 60.4% of predictions were accurate. Presented below are the coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables, indicating that none of the predictor variables significantly predict an increase in skills status.

		B	S.E.	Wald	df	Sig.
Step 1[a]	INSTITUTION(1)	.291	.512	.323	1	.570
	HOME(1)	-.573	.554	1.073	1	.300
	GENDERPR4(1)	.353	.414	.726	1	.394
	YNWE1a(1)	.763	.481	2.520	1	.112
	Constant	-.232	.507	.210	1	.647

4.11.4.3 Self-Efficacy Scale

A logistics regression was undertaken with perceived increase in self-efficacy as the dependent variable and gender, institution, work experience (defined yes/no), nationality (defined home or international) and programme of study as predictor variables. A total of 48 cases were analysed

representing the students who had completed the questionnaire at the start and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared = 3.18, df= 7, p= 0.87). The model accounted for between 24.6% and 35.6% of the variance in increase in perceived self-efficacy status, with 94.3% of the no increase in perceived self-efficacy responses successfully predicted. 23.1% of predictions for the increase in perceived self-efficacy responses were accurate. Overall 75% of predictions were accurate. Presented below are the coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables, indicating that none of the predictor variables significantly predict an increase in perceived self-efficacy status.

		B	S.E.	Wald	df	Sig.
Step 1[a]	INSTITUTION(1)	-20.893	40192.919	.000	1	1.000
	HOME(1)	-1.700	1.241	1.876	1	.171
	GENDERPR4(1)	-.195	.833	.055	1	.814
	YNWE1a(1)	-1.620	1.151	1.983	1	.159
	mgtFUNC(1)	1.352	1.812	.557	1	.455
	MgtFINANCE(1)	.000	46410.781	.000	1	1.000
	MgtBM(1)	-.634	43801.003	.000	1	1.000
	InternationalBandM(1)	-20.602	40192.919	.000	1	1.000
	Constant	21.274	124019.278	.000	1	1.000

A second logistics regression was undertaken with perceived increase in self-efficacy as the dependent variable and gender, institution, work experience (defined yes/no), nationality (defined home or international) and programme of study as predictor variables. A total of 111 cases were

analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study.

The model did not indicate a good fit (Hosmer and Lemeshow test chi-squared = 16.7, df= 8, p= 0.03), nor when considering the omnibus tests (chi-squared 17.37, df= 8, p = 0.03), suggesting analysis in this case should not be presented.

4.11.4.4   Self-Efficacy Scale – reduced number of variables

A logistics regression was undertaken with perceived increase in self-efficacy as the dependent variable and gender, institution, work experience (defined yes/no) and nationality (defined home or international) as predictor variables. A total of 48 cases were analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study. The model indicates a good fit (Hosmer and Lemeshow test chi-squared = 2.08, df= 4, p= 0.72). The model accounted for between 15.7% and 22.7% of the variance in increase in perceived self-efficacy status, with 94.3% of the no increase in perceived self-efficacy responses successfully predicted. 30.8% of predictions for the increase in perceived self-efficacy responses were accurate. Overall 77.1% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables are presented below, indicating that none of the predictor variables significantly predict an increase in perceived self-efficacy status.

		B	S.E.	Wald	df	Sig.
Step 1[a]	INSTITUTION(1)	-.712	.761	.876	1	.349
	HOME(1)	-1.539	.985	2.442	1	.118
	GENDERPR4(1)	-.057	.790	.005	1	.942
	YNWE1a(1)	-1.495	1.128	1.757	1	.185
	Constant	.977	1.044	.875	1	.349

A second logistics regression was undertaken with perceived increase in self-efficacy as the dependent variable and gender, institution, work experience (defined yes/no) and nationality (defined home or international) as predictor variables. A total of 111 cases were analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared = 3.66, df=6, p= 0.72). The model accounted for between 5.7% and 7.8% of the variance in increase in perceived self-efficacy status, with 80.9% of the no increase in perceived self-efficacy responses successfully predicted. 39.5% of predictions for the increase in perceived self-efficacy responses were accurate. Overall 64.9% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables are presented below, indicating that none of the predictor variables significantly predict an increase in perceived self-efficacy.

		B	S.E.	Wald	df	Sig.
Step 1[a]	INSTITUTION(1)	-.328	.518	.401	1	.527
	HOME(1)	-.828	.558	2.199	1	.138
	GENDERPR4(1)	-.076	.432	.031	1	.859
	YNWE1a(1)	.765	.487	2.467	1	.116
	Constant	.199	.516	.149	1	.699

4.11.4.5 Self-Regulated Learning scale

A logistics regression was undertaken with perceived increase in self-regulated learning as the dependent variable and gender, institution, work experience (defined yes/no), nationality (defined home or international) and programme of study as predictor variables. A total of 48 cases were analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared = 2.89, df=7, p=0.89). The model accounted for between 22.9% and 30.9% of the variance in increase in self-regulated learning perception, with 65% of the no increase in self-regulated learning responses successfully predicted. 64.3% of predictions for the increase in perceived self-regulated learning responses were accurate. Overall 64.6% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables are presented below, indicating that none of the predictor variables significantly predict an increase in perceived self-regulated learning.

		B	S.E.	Wald	df	Sig.
Step 1[a]	INSTITUTION(1)	-21.540	40193.204	.000	1	1.000
	HOME(1)	-20.581	15324.493	.000	1	.999
	GENDERPR4(1)	-.482	.789	.373	1	.541
	YNWE1a(1)	.797	.755	1.115	1	.291
	mgtFUNC(1)	-19.145	19911.094	.000	1	.999
	MgtFINANCE(1)	-20.510	40193.204	.000	1	1.000
	MgtBM(1)	-20.843	40193.204	.000	1	1.000
	InternationalBandM(1)	-21.564	40193.204	.000	1	1.000
	Constant	102.981	123169.578	.000	1	.999

A second logistics regression was undertaken with perceived increase in self-regulated learning as the dependent variable and gender, institution, work experience (defined yes/no), nationality (defined home or international) and programme of study as predictor variables. A total of 111 cases were analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared =3.27, df= 7, p= 0.86). The model accounted for between 8.4% and 11.2% of the variance in increase in perceived self-regulated learning status, with 81% of the no increase in perceived self-regulated learning

responses successfully predicted. 45.8% of predictions for the increase in perceived self-regulated learning responses were accurate. Overall 65.8% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables are presented below, indicating that none of the predictor variables significantly predict an increase in perceived self-regulated learning status.

		B	S.E.	Wald	df	Sig.
Step 1[a]	INSTITUTION(1)	.236	.989	.057	1	.812
	HOME(1)	.600	.588	1.042	1	.307
	GENDERPR4(1)	.800	.449	3.177	1	.075
	YNWE1a(1)	.066	.496	.017	1	.895
	MgtFUNC(1)	.887	.907	.956	1	.328
	MgtFINANCE(1)	-.608	1.175	.267	1	.605
	MgtBM(1)	.437	1.245	.123	1	.726
	internationalBandM(1)	.178	1.084	.027	1	.869
	Constant	-1.967	3.830	.264	1	.608

4.11.4.6 Self-regulated Learning Scale – Reduced number of variables

A logistics regression was undertaken with perceived increase in self-regulated learning as the dependent variable and gender, institution, work experience (defined yes/no) and nationality (defined home or international) as predictor variables. A total of 48 cases were analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared = 4.61, df=4, p=0.33). The model accounted for between 18.2% and 24.5% of the variance in increase in self-regulated learning perception, with 70% of the no increase in self-regulated learning responses successfully predicted. 53.6% of predictions for the increase in perceived self-regulated learning responses were

accurate. Overall 60.4% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables are presented below, indicating that none of the predictor variables significantly predict an increase in perceived self-regulated learning.

		B	S.E.	Wald	df	Sig.
Step 1[a]	INSTITUTION(1)	-.392	.695	.317	1	.573
	HOME(1)	-21.311	16331.388	.000	1	.999
	GENDERPR4(1)	-.278	.717	.150	1	.698
	YNWE1a(1)	1.074	.720	2.227	1	.136
	Constant	21.490	16331.388	.000	1	.999

A second logistics regression was undertaken with perceived increase in self-regulated learning as the dependent variable and gender, institution, work experience (defined yes/no) and nationality (defined home or international) as predictor variables. A total of 111 cases were analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared = .965 , df=5, p= 0.96). The model accounted for between 4% and 5% of the variance in increase in perceived self-regulated learning status, with 69.8% of the no increase in perceived self-regulated learning responses successfully predicted. 45.8% of predictions for the increase in perceived self-regulated learning responses were accurate. Overall 59.5% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables, are presented below indicating that none of the predictor variables significantly predict an increase in perceived self-regulated learning status.

		B	S.E.	Wald	df	Sig.
Step 1ª	INSTITUTION(1)	-.093	.513	.033	1	.856
	HOME(1)	.790	.566	1.949	1	.163
	GENDERPR4(1)	.652	.423	2.368	1	.124
	YNWE1a(1)	.091	.476	.037	1	.848
	Constant	-1.198	.540	4.918	1	.027

Regression summary

These series of regression analyses are consistent in their results in that in none of the predictor variables appear significant in terms of an increase in the perception of skills, self-efficacy or self-regulated learning. Where it may be expected that some change would show as significant, or that a particular predictor variable would distinguish itself from others, this is not the case across any of the results presented. What this does demonstrate is consistency with the other analysis undertaken for this research project which show very slight differences in changes at different points in the data collection. Where analysis has been undertaken with the non-tracked students who represent snapshot at the three data collection points, results are similar in that there is very little change in perceptions. Where change does occur this is unexpected, for example a downward trend in perception of skills, a downward, though so small as to be insignificant perception in self-regulated learning, and a downward trend in perceptions of self-efficacy. The details of these trends and implications are revisited in Chapter Five,

4.11.4.7 Analysis of Tracked surveys to predict relationship with reference to results.

Additional analysis was undertaken to explore whether a relationship exists between student performance- as indicated by results, and changes in perceptions of skills, self-regulated learning and self-efficacy. The structure of the postgraduate programmes within this study is modular.

Results in postgraduate modules may be categorised as pass (50-59%); merit (60-69%) and distinction (70% +). Taking an average of the performance on the modules studied it is possible to define a student's performance using the same breakdown. As such for the purpose of this analysis performance is defines as fail, pass, merit and distinction and not complete. The not-complete category comprises those where data indicates they have withdrawn from the programme, or who have withdrawn themselves by virtue of not completing a required resubmission. Results for this aspect of analysis are presented looking at the three scales of skills, self-efficacy and self-regulated learning for those students who completed a follow up questionnaire.

Logistics regression was undertaken with the perceived increase in skills, self-regulated learning and self-efficacy as dependent variables, and the students' results at the end of the taught programme. Regression analysis was limited to those students who had answered the questionnaire on two occasions in order that there could be a direct comparison in responses. All students within this subset were studying on the full time mode, none on the MBA.

In using the categorical variable 'results' it was necessary to create dummy variables. Following Field (2013), the variable representing the majority of students (in this case 'pass') was retained as the baseline group, and four dummy variables created (distinction, commendation, fail and incomplete).

As noted, the regression analysis was limited to those students whose responses could be matched start/end taught programme and mid/end taught programme. This subset of the data comprises 48 students who responded at the start and at the end of their taught programme, and 111 students who responded at the mid-point and at end of the programme. The results of the analysis are presented below.

4.11.4.7.1 Skills Scale and Students' Results

A logistics regression was undertaken with perceived increase in skills as the dependent variable and results as predictor variables. A total of 48 cases were analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared = 0.0, df =1, $p = >0.1$). The model accounted for between 14% and 18.8% of the variance in increase in skills status, with 100% of the no increase in skills responses successfully predicted. 19% of predictions for the increase in skills responses were accurate. Overall 64.6% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables are presented below, indicating that none of the predictor variables significantly predict an increase in skills status.

		B	S.E.	Wald	df	Sig.
Step 1ª	commendation(1)	-21.778	40192.991	.000	1	1.000
	distinction(1)	-.257	.624	.169	1	.681
	incomplete(1)	-21.778	23205.434	.000	1	.999
	Constant	43.238	46410.868	.000	1	.999

A second logistics regression was undertaken with perceived increase in skills as the dependent variable and results as predictor variables. A total of 111 cases were analysed representing the students who had completed the questionnaire mid-programme and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared =.00, df=3, $p= > 0.1$). The model accounted for between 36% and 48% of the variance in increase in skills status, with 86.2% of the no increase in skills responses successfully predicted. 24.5% of predictions for the increase

in skills responses were accurate. Overall 56.8% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables, are presented below indicating that none of the predictor variables significantly predict an increase in skills status.

		B	S.E.	Wald	df	Sig.
Step 1ᵃ	commendation(1)	.829	.639	1.685	1	.194
	distinction(1)	-.780	.747	1.091	1	.296
	fail(1)	.201	.801	.063	1	.802
	incomplete(1)	-.423	.633	.447	1	.504
	Constant	.087	1.516	.003	1	.954

4.11.4.7.2 Self-Efficacy Scale and Students' Results

A logistics regression was undertaken with perceived increase in self-efficacy as the dependent variable and results as predictor variables. A total of 48 cases were analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared $= 0.0$, df $=1$, $p = >0.1$). The model accounted for between 10.4% and 15.1% of the variance in increase in self-efficacy status, with 100% of the no increase in self-efficacy responses successfully predicted. 7.7% of predictions for the increase in skills responses were accurate. Overall 75% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables are presented below indicating that none of the predictor variables significantly predict an increase in self-efficacy status.

		B	S.E.	Wald	df	Sig.
Step 1[a]	commendation(1)	-22.861	40192.935	.000	1	1.000
	distinction(1)	-1.119	.724	2.391	1	.122
	incomplete(1)	-.965	1.341	.518	1	.472
	Constant	23.287	40192.935	.000	1	1.000

A second logistics regression was undertaken with perceived increase in self-efficacy as the dependent variable and results as predictor variables. A total of 111 cases were analysed representing the students who had completed the questionnaire mid-programme and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared =.00, df=3, $p=> 0.1$). The model accounted for between 17% and 23% of the variance in increase in self-efficacy status, with 94.1% of the no increase in self-efficacy responses successfully predicted. 11.6% of predictions for the increase in self-efficacy responses were accurate. Overall 62.2% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables, are presented below indicating that none of the predictor variables significantly predict an increase in self-efficacy status.

		B	S.E.	Wald	df	Sig.
Step 1[a]	commendation(1)	.474	.641	.548	1	.459
	distinction(1)	-.665	.715	.866	1	.352
	fail(1)	-.154	.803	.037	1	.848
	incomplete(1)	.251	.660	.145	1	.703
	Constant	-.348	1.519	.053	1	.818

4.11.4.7.3 **Self-Regulated Learning scale and Students' Results**

A logistics regression was undertaken with perceived increase in self-regulated learning as the dependent variable and results as the predictor variable. A total of 48 cases were analysed representing the students who had completed the questionnaire at the start and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared = .00, df = 1, p= >0.1). The model accounted for between 62% and 83% of the variance in increase in self-regulated learning status, with 10% of the no increase in self-regulated learning responses successfully predicted. 96% of predictions for the increase in self-regulated learning responses were accurate. Overall 60.4% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables are presented below, indicating that none of the predictor variables significantly predict an increase in self-regulated learning status.

		B	S.E.	Wald	df	Sig.
Step 1[a]	commendation(1)	-21.123	40192.991	.000	1	1.000
	distinction(1)	-.693	.635	1.190	1	.275
	incomplete(1)	.773	1.289	.360	1	.548
	Constant	21.123	40192.991	.000	1	1.000

A second logistics regression was undertaken with perceived increase in self-regulated learning as the dependent variable and results as predictor variables. A total of 111 cases were analysed representing the students who had completed the questionnaire mid-programme and at the end of their taught programme of study.

The model indicates a good fit (Hosmer and Lemeshow test chi-squared =.00, df=3, *p*= > 0.1. The model accounted for between 14% and 19% of the variance in increase in self-regulated learning status, with 93.7% of the no increase in self-regulated learning responses successfully predicted. 10.4% of predictions for the increase in self-regulated learning responses were accurate. Overall 57.7% of predictions were accurate. The coefficients, Wald statistic, associated degrees of freedom and probability values for each of the predictor variables are presented below, indicating that none of the predictor variables significantly predict an increase in self-regulated learning status.

		B	S.E.	Wald	df	Sig.
Step 1[a]	commendation(1)	.384	.608	.399	1	.527
	distinction(1)	-.427	.713	.358	1	.550
	fail(1)	.713	.871	.670	1	.413
	incomplete(1)	.133	.634	.044	1	.834
	Constant	-1.007	1.527	.435	1	.510

As with the earlier regression analyses these results are consistent in that none of the predictor variables appear significant in terms of an increase in the perception of skills, self-efficacy or self-regulated learning. Again this demonstrates consistency with other analysis undertaken for this research project which show very slight differences in changes at different points in the data collection. Assumptions could be made, for example students high in self-efficacy are more likely to then go on to achieve better results since high perceptions of self-belief determine perseverance (Bandura, 1977) but this is making assumptions around perseverance and academic ability which are not those within the scope of this work. Further, since participants were not advised that results would form part of this project there are limitations as to how far to venture along avenue of enquiry.

What this does suggest is an opportunity for further research exploring results on completion of the programme and students' perceptions of employability. It may be useful to consider a longitudinal

study, looking at progression along a chosen career path and perceptions of the extent to which the foundation was laid during postgraduate management education.

4.12   Reviewing variations within the quantitative data set

As noted earlier the main data set comprises 450 students, the majority of whom are studying for an MSc on a full time basis. Within the data set there are two slight variations to this overall picture, in terms of programme and mode of study. Of the 450 participants, 413 are undertaking an MSc full time and the remaining 37 are undertaking a full time MBA. In addition, of the 450 participants, 437 are studying full time, 13 part time. The previous chapter noted the decision to include all participants in the data set for analysis. Here, statistical analysis is presented to explore whether, when isolated, these students responses differ significantly from the main data set.

4.12.1   Programme Type: MBA/MSc

There are 37 MBA students. The similarities in their programme have been discussed, hence the decision to include them in the main analysis. Programme type is considered here as a variable for analysis, in the same way gender, institution, nationality and work experience have been reviewed. Thus, analysis has been undertaken to identify differences in their responses compared with the MSc students, positing the null hypothesis that with reference to the scales for skills, self-regulated learning and self-efficacy, there will be no significant difference in the mean scores of the MSc and the MBA students.

4.12.1.1.   MBA and Skills
 The descriptive statistics showed little difference in perceived skills of the two groups.

Descriptive Statistics: Skills and Programme					
	PROG TYPE	N	Mean	Mean rank	Std. Deviation
Emp ALL As 450	MSc	413	5.1380	221.32	.77568
	MBA	37	5.4189	272.11	.86597

Given the disparity of sample size, and smallness of one group, non-parametric test were used to explore the difference (Saunders et al, 2009). When the Mann-Whitney Wallis statistic was calculated (U=5916.000, p=0.023) a statistically significant difference was found which suggests that the null hypothesis may be rejected. In other words, overall, the MBA students perceive themselves to have a higher level of skills than those studying for an MSc.

Since the responses of the MBA students were collected at the start of the programme only data from the start of the programme was included when testing this.

Descriptive statistics suggest the MBA students perceive themselves to have higher skills than the MSc students.

	PROG TYPE	N	Mean	Mean rank	Std. Deviation
Skills START As 152	MSc	115	5.1609	72.53	.82830
	MBA	37	5.4189	88.85	.86597

The Mann-Whitney Wallis statistic was calculated (U=1670.500, p=0.050) a statistically significant difference was found which suggests that the null hypothesis may be rejected. This is the same results when looking the programme type variable against the whole data set, thus it may be said that the inclusion of this group has not undermined the data and it may be concluded that MBA students perceive themselves to have higher levels of skills than those studying for an MSc.

4.12.1.2 MBA and Self-Regulated Learning

The descriptive statistics showed the MBA students' perception of their ability to manage their learning as higher than the MSc students.

	PROG TYPE	N	Mean	Mean rank	Std. Deviation
Descriptive Statistics: Self-Regulated Learning and Programme					
SELFREG all As 450	MSc	413	4.8143	219.44	.73593
	MBA	37	5.2725	293.18	.82674

When the Mann-Whitney Wallis statistic was calculated (U=5136.000, p=0.001) a statistically significant difference was found which suggests that the null hypothesis may be rejected. In other words, overall, the MBA students perceive themselves to be better able to regulate their learning than those studying for an MSc.

Again, the test was performed looking at the MBA students only compared with the data collected at the start of the programme. The higher mean score suggests that MBA students perceive their ability to manage their own learning higher than those undertaking the MSc.

	PROG TYPE	N	Mean	Mean rank	Std. Deviation
SELFREG START A s 152	MSc	115	4.7519	69.77	.78768
	MBA	37	5.2725	97.43	.82674

The Mann-Whitney Wallis statistic (U=1353.000, p=0.001) again indicates a statistically significant difference which suggests that the null hypothesis may be rejected. In other words, at the start of the programme the MBA students perceive themselves to be better able to regulate their learning than those studying for an MSc.

4.12.1.3   MBA and Self-Efficacy

The descriptive tests indicate a difference in the means of the MSc and the MBA students for this scale.

Descriptive Statistics: Self- Efficacy and Programme					
	PROG TYPE	N	Mean	Mean rank	Std. Deviation
Effic ALL As 450	MSc	413	5.1653	220.81	.93954
	MBA	37	5.5845	277.85	.86555

The Mann-Whitney Wallis statistic was calculated (U=5703.500, p=0.011) and a statistically significant difference was found which suggests that the null hypothesis may be rejected. In other words, when looking the programme type variable against the whole data set the MBA students perceive themselves to be more self-efficacious than those studying for an MSc

	PROG TYPE	N	Mean	Std. Deviation
EFFIC START A s 152	MSc	115	5.2315	.91949
	MBA	37	5.5845	.86555

Looking at the data collected at the start of the programme, the Mann-Whitney Wallis statistic (U=1654.500, p=0.042) a statistically significant difference was found which suggests that the null hypothesis may be rejected. This is the same results when looking the programme type variable against the whole data set, in other words, at the start of the programme the MBA students perceive themselves to be more self-efficacious than those studying for an MSc.

4.12.1.4. Programme Type Conclusion

In conclusion, the MBA group perceive themselves to have higher levels of skills and better able to manage their learning than the MSc group. They also perceive themselves to have higher levels of

perceived self-efficacy, though this could not be said to be with much confidence. However, given the small number (MBA represent 8% of the data set) it may be said that that the inclusion of these students in the data set has not impaired the robustness of the results. The variation does suggest an opportunity for further research looking in more detail at variations between types of postgraduate programme.

4.12.2. Programme Mode: Full Time/Part time

The same analysis has been undertaken with the 13 part time students. (Since all the part time students are undertaking the MSc they are referred to simply as part time.) Again, given the sample size non-parametric testing has been used to explore differences.

4.12.2.1. Part Time Students and Skills

Descriptive statistics indicate little difference in the means for each group.

	MODE OF STUDY	N	Mean	Mean rank	Std. Deviation
SkillsALL As 450	full time	437	5.1595	225.03	.79004
	part time	13	5.2154	241.27	.67063

When the Mann-Whitney Wallis statistic was calculated (U=2635.500, p=0.657) the result was not statistically significant which suggests that the null hypothesis should be retained. In other words, though there is a difference between part time and full time students in terms of their perceptions of skills it is too small to be considered meaningful.

4.12.2.2. Part Time Students and Self-Regulated Learning

Descriptive statistics indicate part time students perceive their ability to manage their learning as lower than that of the full time students, albeit the difference appears slight.

	MODE OF STUDY	N	Mean	Mean rank	Std. Deviation
SELFREG all As 450	full time	437	4.8556	225.79	.75599
	part time	13	4.7308	215.81	.67628

When the Mann-Whitney Wallis statistic was calculated (U=2714.500, p=0.785) the result was not statistically significant which suggests that the null hypothesis should be retained. As above, what this suggest is that the slight difference in perceptions of part time and full time students as regards their self-regulated learning is too small to be considered significant.

4.12.2.3. Part time Students and Self efficacy

Descriptive statistics indicate part time students perceive themselves as less able to manage their learning than the full timers. This is worthy of comment- since it could be assumed that part timers would be better able to coordinate work and study. Perhaps not, and there exists a lack of confidence that they can do both?

	MODE OF STUDY	N	Mean	Mean rank	Std. Deviation
Effic ALL As 450	full time	437	5.2114	226.78	.93410
	part time	13	4.8077	182.46	1.08567

When the Mann-Whitney Wallis statistic was calculated (U=2281.000, p=0.226) the result was not statistically significant which suggests that the null hypothesis should be retained. Again, what this suggests is that though there is a difference in perceptions of part time and full time students with regards their perceptions of self-efficacy, the difference is too small to be considered significant.

4.12.2.4. Programme Mode Conclusion

What this analysis has shown is that there appears little difference between the perceptions of part time students in relation to the variables considered. While this validates the decision to include this group in the main analysis, since their inclusion would not impair the robustness of the results, the small sample size does suggest that it would be foolish to make any assumptions per se about part time students. Again, there is an opportunity for further research, beyond the scope of this study, to explore differences between the modes of study, not least because of the growing number of part time students engaging in higher education

4.13   Qualitative Findings

4.13.1   Presentation of the Qualitative findings

The interview stage of the research collected qualitative data from a small number of the survey participants who had agreed to take part in follow up interviews. This aim of this phase was to gain an insight into thoughts and feelings of students, in relation to the concepts raised in the survey. Further, to determine whether, and if so, where, opportunities exist in the programme to develop self-efficacy, skills and self-regulated learning. These findings are presented with verbatim quotations to illustrate key points, giving the students their voice. The findings are presented in sections which reflect the interview structure which had been informed by the survey design. The sections are presented thus:

- Introduction/overview of employability

- Skills and the postgraduate programme

- Learning and teaching at postgraduate level

- Self-efficacy and the programme

- Participants' views of postgraduate education

4.13.2 Descriptive Statistics of Interviewees

As noted in the previous chapter, the research was designed to ensure the interview would be conducted in an appropriate way, so as to elicit information but with respect for the participants. Thus, the preamble for the interview was designed to give confidence to participants that their contribution was valued, respected and would be held in confidence.

Data relating to gender, programme and institution is available from the participants, as this was provided, with consent, during the communication with participants prior to the interviews. Further, the participants volunteered information readily regards work experience in response to general enquiries which were part of the preamble *('how are you? How are things since you finished?').* It appeared intrusive to ask questions directly about age, and, as noted earlier, this has been excluded as part of the research analysis for this study. From the ensuing conversation, it was possible to determine whether a participant was a home or international student, (in relation to how students are categorised by the respective universities) and as such, infer whether English was their first language. However, since this information was not requested it would seem inappropriate to make use of it, hence it has not been included in the analysis. The exception to this is where a participant made specific reference to nationality, to make a point they felt noteworthy. The descriptive statistics for the participants are presented below:

Fig 51 Participants in the Interviews

Participant	Reference	Gender	Institution	Programme
Interviewee 1	I 1	F	2	MSc Management
Interviewee 2	I 2	F	2	MSc HRM and Management
Interviewee 3	I 3	M	1	MSc HRM and Business
Interviewee 4	I 4	F	1	MSc HRM and Business
Interviewee 5	I 5	M	2	MSc Management and International Business
Interviewee 6	I 6	F	1	MSc HRM and Business
Interviewee 7	I 7	F	1	MSc Organisational Behaviour
Interviewee 8	I 8	M	2	MSc Management and Marketing
Interviewee 9	I 9	F	2	MSc HRM and Management
Interviewee 10	I 10	F	1	MSc Work Psychology and Business

As noted in Chapter 3, all participants in the qualitative phase had completed their postgraduate studies recently, and were in the process of looking for appropriate employment. Work experience of the group was varied, and emerged as one of the themes which is to be presented in more detail within this chapter.

4.13.3 Participants' Overview and definitions of Employability

Following the introductory preamble participants were asked as to their understanding of employability. Responses were commonly presented in terms of what employers look for, typically,

> *"I've got what a company would need..." (I, 7)*

The shared perception was very much one that what makes someone employable is defined by the employer, and that which will result in being offered a job.

In this general discussion about employability, with the focus very much as what makes one employable, the notion that work experience was important was much in evidence, the belief that employers only,

> *"look at the experienced people, rather than freshers (non-experienced)" (I,1)*

With one student going so far as to suggest

"with the market at the moment I think they want people without the qualifications, but with the experience" (I, 2)

Though the student did qualify this outlook by reiterating this may be a result of the poor economic situation at present, and her personal struggle in finding work. What this suggests is that the concept of employability shared by students is defined in terms of possessing skills valued by employers (Booth, 2003) rather than something more sophisticated and, as informed by the literature, defined earlier as the ability and attitude to apply and adapt knowledge and skills to current and future opportunities across a career path enabling contribution to a range of occupations in public, private or not-for-profit sectors. Since engendering a broader perception of employability helps to decouple the limited view of the link between education and work (McArthur, 2011), it is suggested that HEIs have some way to go in this respect.

4.13.4 Skills and Postgraduate Education

In order to explore students' perceptions of employability within the programme the prompt questions had been informed by the components of the skills scale, developed for this survey. Asking each of the ten scale items as individual closed questions was not considered conducive to the interview process, thus items were consolidated to capture the key points, which could be delivered as open questions to encourage discourse. As such, the follow up questions encouraged discussion in terms of how students perceived the knowledge, theory and practice gained from the programme and their experiences working with and influencing others.

There was broad agreement that the programme offered opportunities to increase knowledge both of theory,

'to get knowledge, to be able to read and define what I think about an article' (I, 4)

and of practice.

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'the masters teaches you so much more about the real world. I still feel that I have somewhere to go but it teaches you more like what it is working in industry than what you get in undergraduate. I think it prepares you better' (I, 6)

Opportunities to apply theory into practice were noted by the majority of participants as an important aspect of the programme, as described by one participant talking about her perception of how this related to employers' expectations;

"they need (you) to be able to come in and get on with the job so although they need you to have an understanding of what you are doing they also need you to have a basic understanding of how an office works and how you fit in within the office" (I, 2)

Working with others was noted by all the participants as a key part of their experience, and there was a consensus that this was essential because

"it gives you an example of what it is like to work in real life, most of the time you are not just doing things for yourself. You need to learn to be clear about what you need, what they need from you, and be aware of time…things take longer to do as a group

(I, 4)

It was widely reported that the experience of working with others had offered opportunity to engage with people from different backgrounds, typical comments being

"when you do a masters you are having to work with people from all different   cultures, all different age groups, all different opinions which is what you come across in everyday work" (I, 6)

And further, that group work evolves into friendship,

"it was a rich experience. They are friends that I would otherwise not have had" (I, 7)
"They are my friends. Even though the course has finished, and they have all gone to different countries we're still in contact (I, 6)

The process of working collectively drew a number of thoughts from the participants, one of whom commented about the responsibility which comes from being part of a team

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"because you are (in a group) making commitments to each other to do stuff

so you are not just learning for yourself" (I, 4)

Reflecting on the effectiveness of groupwork elicited a number of different opinions. One participant felt that the ability of some members of a group in which she had worked fell short of what she believed to be masters' level. Another believed that there was evidence of some fellow members coasting, leaving others with more than their share of the work. An alternative perspective on this theme was opined by one participant commenting that the extent of effort was a choice,

"you have to match what you are looking for with the rest of the group. They may not

be looking for the same level as you...I think as long as everyone agrees this is the

minimum we need to do, if you choose to do extra that is your choice" (I, 4)

It was noted that the process of groupwork offered opportunities to reflect on one's interpersonal skills working with, and managing, others,

"my behaviour and how I am dealing with people in a group, solving
problems...managing the group when I was team leader" (I, 9)

and of the subsequent need to reflect on and modify one's own behaviour to facilitate a desired outcome

"I was more tolerant...little things like even the way I talk, like talking more slowly,

taking time to understand the way other people interact when they are not

talkers prompting people who are quiet" (I, 7)

A similar view was expressed, recognising the application of this to future work,

"having to work in groups...made me a lot more diplomatic...able to put myself in

other people's shoes, able to work with people who wouldn't have the same opinions

as me but still have the same end goal, like you'd come across in the workplace" (I, 6)

Working with others was seen as a way of developing and testing one's own understanding

"If I can explain it to someone else I know I know it" (I, 4)

And further it was seen as something employers look for

> *"the ability to work with different people and different teams, to be a good*
>
> *team player (I, 5)*

4.13.5. Self-regulated Learning and Teaching and Postgraduate Education

As with the questions relating to skills, the prompt questions had been informed by the survey scale. In exploring learning the intention was to explore whether students perceived in themselves a change in their approach to learning. Many noted postgraduate education as a considerable 'step up' from their previous studies which necessitated a change in approach.

> *"I think the masters is a completely different level to an undergraduate, and I didn't do   a*
> *mickey-mouse degree" (I, 6)*

> *"my approach to learning became more structured than in my undergraduate*
> *years…more structured, more detailed, very organised" (I, 7)*

One student did comment they had been expecting the programme to be more difficult than it proved to be initially, as a result of which they applied themselves less vigorously than they believed they should have done, which they attributed to a subsequent drop in form during the middle of their studies. (The student did recover the situation and successfully completed the programme).

Overall, there was recognition that expectations were high at postgraduate level, and that students had greater responsibility for their own progress, and were required to evolve into more independent learners.

> *"I think it has made me grow up a lot more…because of the sheer volume of work , the sort*
> *of work you are expected to do, you are expected to write like a professional not like an*
> *undergraduate" (I, 6)*

There was a view shared among the participants that the teaching experience differed from previous studies

> *'one of the first things when you start the course, you don't know where to look for information, and obviously some of it is pointed to you, which encourages you to do the wider reading...that helps you learn where to go and get more information' (I, 10)*

Another point noted was from students comparing their experience of international and UK teaching styles commenting on the extent to which lecturers *'get more involved'* checking understanding both during and after a lecture, questioning the class and inviting discussion. This resulted in confidence among the students that they had been invited to query, check and clarify, which enhanced their knowledge. In addition, it was noted that this was a much more *'intense'* educational experience and encouraged students to engage fully at the risk of being asked a question and found wanting.

There was a shift in perception of what learning was, recognition of expectations from teaching staff that in addition to being better able to manage their own learning students were encouraged to take an active role in learning,

> *'the lecturers need you to wake up...they want your ideas "what do you think" and you get involved with the work. The approach of learning is changed. You get involved with suggestions, you put your ideas forward (I, 8)*

This idea is taken further by one student suggesting development in higher levels of cognitive skills feeling able to

> *'read and understand methodologies used and... be able to think what else might have gone on that they haven't written in, to be able to read an article and go 'ok, well they could have also thought about this or that', it shows that I can go beyond just reading it...that I actually understand'   (I,4)*

Further there was a sense that the masters programme encouraged learning beyond the immediate situation, and contemplating future application, one student explaining how, when studying, she had found herself

> *"thinking in a way how I am going to implement this one day when I'm going to work…so I actually know how to do it, not just to pass exams" (I, 1)*

4.13.6 Self-efficacy and Postgraduate Education

In order to explore self-efficacy, participants were encouraged to consider the effect completing their studies has had on their self-confidence. The follow-up questions in this section of the interview encouraged students to reflect on where and what had an impact on students' sense of achievement and self-belief throughout the programme.

There was a sense of having achieved something significant through engaging in postgraduate education, beyond that of having achieved a first degree

> *"having done my masters I have so much more confidence. I feel confident working in an xx department and not feeling like a fraud. Like I deserve to be there, like I can contribute. Had I gone in as an undergraduate I would have been like a fish out of water" (I, 6)*

Further to this was a sense of achievement through validation from other people, in other words a sense of having gained the respect of others which serves to reinforce one's self-belief. One student expressed great pride in contributing to a group of fellow students which included some much older and more mature (including a '*guy of thirty-five*') which she believed

> *"makes you mature quicker as well, you're thinking at a different level, working with someone with years of experience" (I, 6)*

The sense of achievement as a result of recognition from others was not confined to the peer group. Returning to the theme of teaching noted earlier, one student talked about the sense of personal achievement he felt in having academic staff listen to his ideas. On this note, one student

commented that engaging in this doctoral research had a similar impact on his self-belief since he was being asked his opinion and was being listened to

> *'like you're really interested in what I'm saying. Like it matters." (I, 8)*

There was pride in a job well done, recognition that effort is required and will be rewarded

> *"Now I've finished I feel fulfilled. It makes things clear like if I put a lot of effort*
> *into it, given the right environment, I can do exceedingly well (I, 3)*

Students commented on how sharing and imparting knowledge within their cohort had a positive impact on their own experience. As noted earlier, working in groups played a large part in the delivery of the programme and participants noted this offered a lot of opportunity for utilising personal strengths and helping others,

> *"I'm always happy to take time to teach others because it means*
> *I know it well" (I, 4)*

And the sense of satisfaction that brings,

> *"I love imparting knowledge. It is a wonderful feeling you have when*
> *you pass knowledge down to someone who didn't have it before" (I, 3)*

The idea that teaching others cements one's own understanding was commonly held among the participants. In addition to this, one student saw an additional facet to the idea of 'teaching' her peers

> *"I found it quite rewarding because I was conscious I didn't want to be*
> *just a taker…the one picking up from other people's experience and*
> *knowledge, so I felt if I had contributed and people had picked stuff up from*
> *me then I had deserved my place" (I, 6)*

Aside from helping fellow students in their studies, it was felt that witnessing others' success had, in itself, a positive impact on self-belief

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"it is a great encouragement when you see other people succeeding, then
I am also encouraged to know I can do it, and I can succeed as well" (I, 5)

4.13.7 Participants' conclusions and the impact of Postgraduate Education

In concluding the interview, participants were invited to comment on their view of postgraduate education in general terms, where they felt they wanted to return to a theme touched on earlier, or to make some additional remarks. These comments have been grouped broadly below where they add insight to the students' experience, and relate to themes which have been introduced earlier in this study.

In terms of undertaking a postgraduate qualification, a number of participants opined the view that this was almost a requirement now to distinguish them from others of their generation, particularly when looking for a good job

"the minimum level of qualification used to be a BSc, but so many people have an MSc you probably won't be able to stand out as an individual, if you don't have one too….and to top it up I have a distinction, so I think that makes me employable (I, 3)

Some students were less inclined to see the postgraduate qualification as a necessity, stating more simply that it has added value in terms of securing employment

"I've had multiple job offers, and I wasn't in that situation when I had done
my undergraduate. I couldn't get a job. Just couldn't. And I tried and tried" (I, 6)

though one participant did express some disquiet at the paucity of employment opportunities "*even with a masters degree" (I, 10)*

The student who noted this did develop the theme by suggesting that rather than having an immediate impact on one's career, the postgraduate qualification should be viewed more as an

investment. The idea of postgraduate education as an investment was shared by a number of the students.

"if you have a masters, your life will be easier, your will have more chances, more opportunities….opening to you another level of the future (I, 9)

One student was critical of those who bemoan the apparent lack of immediate opportunities, using a business analogy to make the point

"remember…when you are investing don't expect to get a profit in one
year or two years…you might work under losses" (I, 8)

While another student, who recognised herself to be underemployed in her current (temporary) role took the view that,

"they are aware of the skills I've got and the skills I could be using. So while it may not help me get a job but may help my progression within a company (I, 2)

A number of students commented on the programme as having developed their transferrable skills which they recognised as something employers value, particularly since these facilitate movement between organisations and sectors, one student citing what the programme has given to her,

"I have greater understanding of how businesses work. I think I understand people and I have learned managerial skills. So even if I didn't end up purely in HR it is still going to further my career" (I, 2)

In addition to the masters adding more than its subject specific content, some students were conscious that the experience of being at university was developmental in itself, providing opportunities to develop skills through, for example, extra-curricular activities such as managing students' societies. This theme was expressed by one student in terms of opportunities for interaction,

"going to university is more than just a degree…being able to communicate with
people from different countries, to have access to lecturers and to be able to learn

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from their own experience in lectures, or indirectly in conversation, to be involved in other activities in the uni as well. All of that combination is important" (I, 5)

Engagement with people of different nationalities and cultures was generally posited as one of the most positive aspects of the programme. A number of students made specific reference to their status as international students, and in particular that moving to a different country had been instrumental in their choice of university. For some this had proved challenging at first

"I was a nervous wreck...a bit of a culture shock" (I, 7).

This particular student noted how easy it would have been to remain isolated and advocated the need to "*get involved fast...do things like volunteering*".
A number of comments related to seizing the opportunity to develop their language competence, both from a personal aspiration, and as a signal to a potential employer who,

"sees I have completed my masters in England and knows without question my English will be at the right level" (I, 1)

International students also noted the value placed by employers in their home country, on having a qualification from a British university.

"in the UK experience the standard of education is a lot higher than a home... and if I had just stayed at home and completed my education then I would only have looked at the glass through one side. But when you go out and travel, you can understand how people do things on the other side of the world, and bring new knowledge and new ideas home" (I, 3)

There is a sense that international employers can be dismissive of their 'home grown' students which can be advantageous to those who have studied abroad

"those who have foreign degrees are generally looked on as more capable of executing the job with more professionalism, than if you had an indigenous adult education" (I, 10)

In addition to employers placing value on a UK qualification, it was suggested that employers were also keen to see returning students who had exposure to different cultures, and could bring new ideas back with them. There was one note of discord regards multinational teamwork, expressed, specifically in relation to the challenges involved in groupwork when English was not a shared first language,

> *"it's a definite language barrier…with us trying to translate rather than actually getting onto the topic" (I, 2)*

Overall, the participants were positive about their postgraduate experience, and one comment captures this succinctly,

> *"the essence of what the MSc has given you…the ability to know where to go and get the knowledge, to be able to evaluate the knowledge and decide whether it is worthwhile using it then also be able to justify what you are doing, to employers as well" (I, 4)*

4.14 Summary of Findings

Given the detail within this chapter, the findings have been summarised to better capture a sense of what has emerged from the research. The main points from the quantitative analysis are represented in figures below.

4.14.1

Fig 52 Summary of Survey Findings

OVERVIEW OF SCALES AND TRENDS				
	Scale Mean All students (n=450)	Start mean (n=152)	End mean (n= 109)	Trend
Skills	5.16	5.2 (higher than mid-point of scale)	5.05	Lower at end Difference is significant
Self-Regulated Learning	4.85	4.87(higher than mid-point of scale)	4.80	Lower at end Difference not significant
Self-efficacy	5.19	5.32(higher than scale mid-point)	4.97	Lower at end Difference is significant

SCALE ANALYSIS TO DETERMINE STRUCTURE - variable groupings (using PCA)	
Scale	**Consistency in components across the data collection points**
Skills	Working with others
	Knowledge and Learning
Self-Regulated Learning	Testing one's Own Understanding
Self-Efficacy	Belief in ability to Succeed
	Ability to Manage basic Ideas
	Able to Manage Complexity

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VARIATIONS WITHIN THE TOTAL SURVEY POPULATION(n=450)

Scale and Variable		Descriptive Statistics: Higher/Highest Mean?	Is this Significant?
Skills	Gender	Males	Yes
	Work Exp.	With work experience	Yes
	Nationality	Black/Black British highest, (*Chinese lowest*)	Yes (*Yes*)
	Institution	Two	No
Self-regulated Learning	Gender	Males	No
	Work Exp.	With work experience	Yes
	Nationality	Black/Black British highest, White lowest DO MANN WHITNEY	Yes in some cases
	Institution	Two	Yes
Self-efficacy	Gender	Males	Yes
	Work Exp.	With work experience	Yes
	Nationality	Black/Black British highest (*Chinese lowest*).	Yes (*Partly*)
	Institution	Two	Yes

VARIATIONS AT THE START OF THE PROGRAMME (n=152)

Scale and Variable		Descriptive Statistics: Higher/Highest Mean?	Is this Significant?
Skills	Gender	Males	No
	Work Exp.	With work experience	Yes
	Nationality	Black/Black British	Yes
	Institution	Two	No

Self-regulated Learning	Gender	Males	No
	Work Exp.	With work experience	Yes
	Nationality	Black/Black British	Yes
	Institution	Two	Yes
Self-efficacy	Gender	Males	Yes
	Work Exp.	Yes	No
	Nationality	Black/Black British highest	Yes
	Institution	Two	Yes

VARIATIONS ON COMPLETION OF THE PROGRAMME (n=109)			
Scale and Variable		**Descriptive Statistics: Higher/highest Mean?**	**Is this Significant?**
Skills	Gender	Males	No
	Work Exp.	With work experience	Yes
	Nationality	Black/Black British highest,	Yes in part
	Institution	Two	No
Self-regulated Learning	Gender	Males	No
	Work Exp.	With work experience	No
	Nationality	Black/BlackBritish	Yes in part
	Institution	Two	No
Self-efficacy	Gender	Males	No
	Work Exp.	With work experience	No
	Nationality	Black/Black British	In part
	Institution	Two	No

Dependent Variable	**Predictor variables**	**Outcome**
Increase in perception of Skills	Gender, Institution, Work experience,	None of the predictor variables significantly predict an increase in perception

Increase in perception of Self-Efficacy	Nationality, Programme of Study, Performance as indicated by result.	None of the predictor variables significantly predict an increase in perception
Increase in perception of Self-regulated learning		None of the predictor variables significantly predict an increase in perception

4.15. Chapter Summary

This chapter has presented the findings from the survey and the interviews. The findings have been presented in stages, initially looking at the descriptive statistics of the data set. This has been followed with the quantitative findings, trends within the scales for the entire sample n=450, underlying structure of the scales, then comparisons of groups within the sample. Correlation of the scales is included, and the findings conclude with those from the interviews which are informed by the survey, and add another dimension, as students suggest areas of the programme which have had some meaning to them.

Fig. 52 has summarised those findings, which will be discussed in detail in the next chapter.

CHAPTER FIVE   DISCUSSION

5.1   Introduction to the Chapter

This chapter opens by revisiting the research hypotheses, outlined in Chapter 3, and noting how the findings relate to these. The discussion which follows is framed around the research objectives which were informed by the literature, and presented in Chapter 2. By returning to the literature there is an opportunity to gain insights and meanings from the data gathered in this study, and identify where this work makes a contribution. In particular the discussion will address skills, self-regulated learning and self-efficacy, and thus employability, and the changes perceived by students during postgraduate study.

5.2   Review of the Research Hypotheses.

In this section the results of testing the hypotheses are presented. These are analysed without elaboration to allow the reader to assimilate the information before moving on to the following chapter to consider the implications of the findings. H1 looks at perceptions of the entire sample population (n=450) as a snapshot of students engaged in postgraduate education. H2, H3 and H4 look at the direction of each scale from the start to the end of the taught programme be it downwards or upwards. H5 looks at the differences between groups within the entire sample population. H6 explores differences between groups at the start of their studies (n=152), while H7 explores differences between groups at the end of the taught programme (n=109). H8 and H9 examine the relationship between the three scales. Following this section the research objectives are revisited to interrogate the differences in more detail, and to consider the implications.

H1   At the start of their programme of study, postgraduate management students perceive themselves to have high levels of skills, self-regulated learning and self-efficacy.

For each of the three scales the mean for the research population of 450 students is higher than the mid-point of the scale which suggests that students feel positive as to their employability at the start of their postgraduate studies. Skills (M=5.16) and Self-efficacy (M=5.12) while self-regulated learning (M=4.85). What this suggests is students start the programme having a positive perception of themselves with regards their skills, their self-efficacy and their ability to manage their learning. As noted earlier, Bandura's (1977; 1982) position that previous accomplishments are key in inspiring confidence supports this result.

H2   With reference to the skills scale, the mean score of students at the end of the taught postgraduate programme is greater than the mean score of students at the start of the postgraduate programme.

This was not found to be the case, rather the mean score for students is lower on completion of their taught programme (N=109, =M=5.05) than at the start (N=152, M=5.22), and the difference is significant.

H3   With reference to the scale for self-regulated learning, the mean score of students at the end of the taught postgraduate programme is greater than the mean score of students at the start of the postgraduate programme.

This was not found to be the case. The mean score is lower on completion of the taught programme (N=109, M=4.80) than at the start (N=152, M=4.87), but the difference is so small as to be Considered insignificant. Regardless, this downward trend/lack of positive movement is not what would be anticipated, given the stated aspirations of the programme to enhance learners' employability (Appendices 1 and 3).

H4   **With reference to the self-efficacy scale, the mean score of students at the end of the taught postgraduate programme is greater than the mean score of students at the start of the postgraduate programme.**

This was not found to be the case, rather the mean score for students is lower on completion of their taught programme (N=109, M=4.97) than at the start (N=152, M=5.32), and the difference is significant.

H5   **There are statistically significant differences in the perceived skills, self-regulation of learning and levels of self-efficacy for student groups engaged in postgraduate management education.**

In looking at the population as a whole (n=450) analysis was undertaken to determine differences between the groups within that population. Summarising these differences:-

- Male students perceive their skills and self-efficacy higher than females, and the differences are statistically significant. Males also perceive their self-regulated learning higher, though this difference is not large enough to be considered significant.

- There is a statistically significant difference in the perception of students with work experience compared to those without work experience in terms of skills, self-regulated learning and self-efficacy.

- Black/Black British Students' perceptions of their skills, self-regulated learning and self-efficacy are statistically significantly higher than any other nationality in the survey. No one nationality group was consistently lowest in terms of perceptions in relation to any of the three scales. Chinese students perceive their skills lowest of all the nationalities, and this difference is significant, and the Chinese students' self-efficacy is lowest, but this difference is not considered significant.

- Students at Institution Two perceive their self-regulated learning and self-efficacy higher than their counterparts at Institution One, and the difference is statistically

significant. Institution Two students also perceive their skills higher, though this difference is not large enough to be considered significant.

H6   **There are statistically significant differences in the perceived skills, self-regulation of learning and levels of self-efficacy for student groups at the start of their programme.**

Analysis was undertaken looking at the students at the start of their studies (n=152) to explore differences across the three scales between groups, summarised below:-

- Statistical analysis shows males' mean scores are higher than females across all three scales, and in the case of self-efficacy, this difference is significant.

- Descriptive statistics show the mean score of students with work experience is higher than that of those students without work experience across all three scales. The difference is significant in relation to skills and self-regulated learning.

- Black/Black British Students' perception of their skills, self-regulated learning and self- efficacy is statistically significantly higher than any other nationality, at the start of their studies.

- Descriptive statistics show the mean scores of students at Institution Two are higher than of those at Institution One at the start of the programme across all three scales, and the difference is significant in the case of self-regulated learning and self-efficacy.

H7   **There are statistically significant differences in the perceived skills, self-regulation of learning and levels of self-efficacy for student groups at the end of their programme.**

Analysis was undertaken looking at the students on completion of the taught programme (n=109) to determine differences across the three scales between groups, summarised below:-

- Analysis shows males' mean scores higher than females across all three scales, but differences are not large enough to be considered significant.

- Statistics show students with work experience perceive their skills to be higher than those without work experience, and analysis has shown this difference is statistically significant.

- In relation to the scales for self-regulated learning and self-efficacy, there is a difference, but this too small to be considered statistically significant.

- Black/Black British Students' perception of their skills, self-regulated learning and self-efficacy is statistically significantly higher than any other nationality, on completion of their taught programme.

- Students at Institution Two perceive their skills, self-regulated learning and self-efficacy higher than the students at Institution One on completion of their taught programme, however, the differences are not large enough to be of any statistical significance.

H8   **There is a positive relationship between student perceptions of self-efficacy and skills.**

H9   **There is a positive relationship between student perceptions of self-regulated learning and their perceived levels of skills.**

Analysis shows there to be a strong positive relationship between the constructs of skills and self-regulated learning, suggesting that students who perceive their skills highly, perceive their ability to regulate their learning highly.

Analysis of the relationship between skills and self-efficacy found the same result strong positive relationship, in that students with high levels of perceived skills have high levels of perceived self-efficacy.

To summarise, the hypotheses indicate where the data has been analysed to determine whether differences in students' perceptions exist, and whether differences, where they do exist are of any significance. Further, the analysis explores the relationship between the variables. To provide a framework for the ensuing discussion, attention is now focussed on the research objectives which were introduced in Chapter 2. In attending to the research objectives the purpose is to enable an address of the main research question as to whether studying postgraduate management education increases students' perceptions of their employability.

5.3   Revisiting the Research Objectives in line with the Findings

The research objectives are analysed below, with reference to the findings.

5.3.1   To explore students' perceptions of their skills, self-efficacy and self-regulated learning at the start of their post graduate studies. (RO 1)

In designing the questionnaire it was decided to use a modified Likert scale (see section 3.6.2) which includes a scale mid-point. Having a fixed mid-point shows where responses lie above or below the centre, and could be deduced to be leaning more towards the higher or lower end of the scale. (Burns, 2000). Mean scores for each of the three scales in question are above the mid-point, (specifically, Skills 5.2; Self-regulated learning 4.87; Self-efficacy 5.32), which suggests that in this study students have favourable perceptions of themselves as they start the programme.

It has been noted earlier (Chapter 2) that there exists a lack of research at postgraduate level. In Rothwell's (2009) study a comparison was possible between ratings of undergraduate and postgraduate students' perceptions of employability, which found the latter to be higher than the former. Similarly, work exists exploring undergraduates and graduates' expectations of the value of the degree, which finds undergraduates feeling more buoyant regards how useful they perceive the degree in enhancing their employability (Gedye et al, 2004) though tempered with a recognition

that employers look for things in addition to the academic qualification (Tomlinson, 2008). However there are no examples of existing studies which exactly replicate the scale, methodology and objectives of this study, and thus could be used to support or counter the suggestion that students' perceptions are high. As such, and drawing on Bandura's (1977) theoretical perspective, the results in this study indicate postgraduate students have positive perceptions of themselves, which may be as a result of the achievement of being accepted onto the postgraduate programme. Lane et al (2003) make this same observation in their work on the predictive power of self-efficacy on academic performance. In addition, given the diversity of the population, as detailed in Chapter 2, and high levels of perception of skills, self-efficacy and self-regulated learning at the start, as the findings in this study show, results in this study indicate that there may be students for whom this opportunity offers the opportunity to demonstrate their true ability, in order to compensate for earlier under-achievement, as suggested in the literature (Brooks et al, 2009). In sum, this study shows students' perceptions of their employability are high at the start of the programme, which may be as a result of being accepted onto postgraduate study.

5.3.2   To determine whether postgraduate students' perceptions of their skills, have altered after undertaking postgraduate study. (**RO 2**)

Perceptions of skills among the research population as a whole have altered after undertaking the programme, however the trend is downwards. In other words **students, on the whole, do not see themselves as having higher skills following the taught programme.**

This is unexpected, since enhancing employability is a stated aspiration from both institutions in this study, with one making specific reference to enhancing employability by developing lifelong learning and personal skills, the other, citing the aim to enable learners to develop skills and competencies to enhance their employability and career advancement (Appendix 1 and 3). Further, the literature notes numerous examples of much enhancing career prospects cited as a key reason

for embarking on higher education (Bowman, 2005; Park, 2008; Park et al, 2010). However, this finding is consistent with one of the few pieces of research into undergraduate and postgraduate employability which noted that for both levels of students, engagement with their programme did not appear to have much influence on perceptions of employability (Rothwell et al, 2009). What this suggests is, from the students' perspective, their perceptions of their skills have not been enhanced during the taught programme, or possibly that students are becoming more self-critical, or realistic as they immerse themselves in the programme. It could be argued that since students' motivation for engaging in postgraduate education is career orientated this suggest a lack of confidence that employment will be found easily. This is borne out by the interview findings where it was suggested that in the current climate employers are less interested in qualifications, more interested in those who are proven performers, a point raised in Archer and Davison's work (2008). Interrogating the survey findings in more detail reveals both males and females' perceptions decrease slightly. However, while males consistently perceive their skills higher than females, the gap in perception between genders on completion of the taught programme is no longer significant. In other words the gap narrows between the genders. What may be deduced from this is while the impact on perceptions of skills could be said to be less than anticipated, **the programme has a more positive impact on females than males, in other words benefits females more.** This is a notable finding since there is evidence in the literature that gender plays a part in determining perceptions of employability, notably that females underestimate their abilities (Colbeck et al, 2001), that females perceive themselves as less employable in certain occupations (Clement, 1987) and perceive they will earn less than males (Hogue et al, 2010). What the findings from this study suggest is that females may benefit more than males by engaging in postgraduate study. An alternative perspective is that females are more realistic at the start of the programme, while males are over-ambitious. If this is the case then it could be argued that the programme has a sobering effect on students which may serve to manage their expectations of securing work quickly. This is consistent with some students' comments gathered through the interview who talk of the

postgraduate qualification being a more long term investment with no guarantee of immediate employment.

Those with work experience perceive themselves as having higher skills than those without. The difference is considered large enough to be significant as students start their studies, and is still significant on completion of the taught programme. In other words, **having work experience makes a difference to how students perceive their skills.** This would seem to suggest having work experience is important in enhancing a students' perception of skills, in other words students may perceive themselves to be more attractive to an employer having proved themselves capable of working, a reasonable assumption, given the importance employers place on having work experience (Green, 2011; Archer et al, 2008).

Looking in more detail at the statistical evidence reveals a decrease in the mean scores of students with work experience from start to end of the taught programme, in other words students with work experience perceive their skills as lower after the taught programme. Looking at those without work experience, the mean score increases, in other words those without work experience perceive their skills as having increased after the taught programme. It could be said that **the postgraduate programme has a positive impact on the skills perceptions of those who start out with no work experience,** suggesting those without work experience benefit from the programme. There is an opportunity for further research here to explore in more detail the impact of the programme on students with and without work experience. Since, as noted, employers value work experience in potential recruits and one of the most often cited reasons students offer for engaging in higher education is to advance career aspirations (Bowman 2005; Park, 2008), this represents a positive message, suggesting engagement with the programme, and experiences gained make those without work experience feel on a more equal footing to those with work experience. A review of the programme guides (Appendices 1 and 3) indicates the extent to which the HEIs state they provide 'real work' experiences, using case studies, specialist practitioners and guest speakers where possible. It is reasonable to suggest that for those without work experience these activities may

offer a close enough approximation of work which inspires self-perceptions of skills, a positive message for prospective students.

The statistical analysis around nationality and ethnicity shows some differences in perceptions, specifically in that **Black/Black British students rate themselves highest in terms of skills out of the nationality groupings in this study at the start of their studies and on completion of the taught programme, while the Chinese students rate themselves lowest at both start and end.** Relevant to this is the descriptive statistics presented in section 4.3.6.2, which note that the Chinese students are the only nationality who had fewer members without work experience than with. However, before rushing into a discourse around national stereotypes it should be noted that fragmenting the research population by nationality has resulted in some small sample sizes. Further, within this study it is important to note the distinction between nationality and ethnicity presented in section 4.3.5. A more measured approach is to consider the overall picture, that one group appears to be consistently higher in its perceptions of skills than other groups, and remains so after the programme; while one group appears to perceive themselves having lower skills than all others, and again, that situation does not change after the programme. Given the diverse nature of postgraduate study, coupled with the recognition that some students may have less/no work experience it is more appropriate to suggest there are differences in the composition of the student population which should be addressed to ensure a perceived deficit (in this case a lack of work experience) is addressed. This suggests reviewing the programme to explore where opportunities present themselves to engage with employers, and to ensure these are available to all.

There is little difference in perceptions of skills between the students at the two institutions. The findings do reveal skills perceptions at both institutions decrease slightly. However, the gap in perception between students on completion of the taught programme is smaller. Two things may be inferred from this. Firstly, that being at one or other institution appears to make little significant difference to perceptions of skills**.** Secondly, that while this lack of impact on perceptions of skills could be said to be less than expected, **the programme has a more positive impact on students**

at Institution One, than at Institution Two. There are a number of points to make regards this finding. Firstly, there is the proposal that both institutions could do more to address skills perceptions of its students. It may be that students are unclear as to the skills they already possess, are unable to articulate them, or indeed simply do not possess them. Encouraging greater reflection pre and post programme may be of benefit in enabling students to perceive any change, as may delivering interventions which develop skills around self-reflection. Secondly, that this narrowing of the gap suggests it is opportune to consider more closely the differences between the two institutions. Clearly, some of that exploration is beyond the scope of this study, for example details of student profiles, and it is worth remembering that both institutions have the same entry requirements for the programmes, though this is the minimum, not a maximum. One difference between the institutions which did emerge from this study is that most of the students at Institution One were drawn from a particular group of programmes which includes a theme of human resource management, whereas students at Institution Two were drawn from a more generic management suite. In a small scale study of postgraduate students engaged on an MSc in HRM, Maxwell et al (2008) note the programme content – including skills development - is informed by both the QAA bench marks (see section 2.3) and the Chartered Institute of Personnel and Development (the professional body for HR professionals). The HRM programme(s) outcomes at Institution One are all informed, explicitly, by the CIPD standards, as well as the QAA benchmarks (see Appendix 1). Programmes at Institution Two make no specific reference to the CIPD in the programme outcomes (Appendix 3). What may be inferred is that the involvement of a professional body is useful in developing Programme outcomes, since they add an additional dimension to requirements. In other words, having an academic award accredited by the professional/industry body may have a positive impact on perceptions of skills, since a student may perceive an obvious initial career path.

5.3.3   To determine whether postgraduate students' perceptions of their self-regulated learning have altered after undertaking postgraduate study. (RO 3)

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Perceptions of self-regulated learning among the entire research population have altered after undertaking the programme, however the trend is downwards, though not significantly so. In other words **students, on the whole, do not see themselves as better able to manage their own learning following the taught programme.** Though the difference is statistically significant, the fact that the trend is downwards is unexpected since the learning outcomes of the programmes (Appendix 1 and 3) address the development of learning skills, and equally one of the aims of education is to develop the ability to learn (Bandura, 1995). This is of concern since literature suggests employers look for those who can adapt and learn as occupations change, and those with self- regulatory ability are better able to do so (Zimmerman, 1990; Bandura, 2001). It may be that the demands of postgraduate study have proved more challenging than initially expected, a point supported by the qualitative findings where the comment was made as to the volume of work and the demands of the programme (section 4.13).

Exploring the findings in more detail reveals both males and females' perceptions decrease slightly. The gap between the genders remains virtually the same (mean difference at the start is 0.07, gap at the end is 0.07). What may be deduced **from this is that males and females exhibit little difference in perceptions of self-regulated learning, and nor does either gender indicate undertaking the programme has had a positive impact on self-regulated learning.** This is disappointing to note, since it would be expected that perceptions of self-regulated learning improve. One of the stated aims of both programmes is to develop independent and reflective learners, and, as noted in the literature, an aim of education is to enhance self-motivation, learning and reflection (Endejok, 2013; Zimmerman, 1997). What this does do is suggest an opportunity for further research.

Further, findings suggest **those with work experience perceive themselves as being better able to manage their learning than those without**. This would be expected since a key part of learning

relates to internalising knowledge which may then be demonstrated at a later time (Schunk, 2010) which suggests those with work experience may recognise they have opportunity in which to apply theory into practice. The difference is considered large enough to be significant as students start their studies, but the difference is no longer significant on completion of the taught programme. In other words, the gap in perception about managing learning between those with and without work experience lessens after engaging with the programme. Analysis shows a decrease in the mean score of students with work experience from start to end of the taught programme, in other words students with work experience feel less able to manage learning after the programme, though the decrease is very small (difference in means is 0.13). The opposite is found looking at those without work experience where the mean score increases (by 0.2). It should be noted that these differences are small, however, it may be said that there is evidence to suggest **the postgraduate programme has a positive impact on those without work experience in terms of how they perceive their ability to manage their learning.**

This relates to a point made earlier, that engaging with the programme has a beneficial effect on students without work experience, in this case in relation to their perceptions of managing their learning. With respect to this, it is suggested that engaging in the programme has had an impact on developing the learning strategies of those without work experience, by providing the environment in which learning activities associated with work are replicated. Social cognitive theory posits learning to be influenced by both internal (for example, goals) and external factors (for example, the social situation), (Petri, 1996; Stewart et al, 2011). Since teaching strategies on the postgraduate programmes incorporate activities which mirror learning in the workplace (teamwork, problem solving, application of theory to practice, critical analysis) as noted in the Programme Guides (appendices 1 and 3), this suggests those without work experience enhance their self-regulated learning through their postgraduate study.

The statistical analysis around the impact of nationality shows some differences in perceptions, in terms of self-regulated learning. Black/Black British students rate themselves highest out of the

nationality groupings at the start of their studies and on completion of the taught programme. Detailed analysis has suggested some significance within further comparisons of the four nationality groups, however the samples are small. As such caution is advised in reading too much more into a detailed breakdown of nationality results.

At the start of their programme there is a notably significant difference in how students at the different institutions perceive their ability to manage their learning, with those at Institution Two rating themselves higher than their counterparts.   The findings reveal perceptions of learning at Institution One have increased on completion of the taught programme, albeit this increase is small (an increase in mean score of 0.14), while the perceptions of self-regulated learning of students at Institution 2 have fallen (a mean score decrease of 0.14). There are three points to make here. **Firstly, though students at Institution Two still rate their self-regulated learning higher than those at Institution One, the gap has narrowed. Secondly, following the programme, students at Institution One indicate an increase in their perception of self-regulated learning, albeit the increase is small. Thirdly, students at Institution Two feel less able to manage their learning following the taught programme**. To summarise, after engaging in the taught programme students at Institution One are more positive about their ability to manage their learning than those at Institution Two. What this suggests is an opportunity to explore differences in the institutions' programmes, in particular any differences in strategies which contribute to developing learning. What the qualitative research has found is that while both institutions incorporate groupwork into their respective programmes, interview findings reveal Institution One students articulate this explicitly. Specifically they note the range of different groups, some determined by the lecturer 'syndicate groups', some self-selecting 'friendship groups' and some action learning groups, informally constructed by the students for revision purposes. This is not to say that the extent of groupwork is less at Institution Two, but the variety of groupworking opportunities was commented on to a great extent by students at Institution One, and explicit in the programme guides there. Groupwork plays a significant part in learning (Schunk et al, 2010; Petri, 1996) thus it

is a reasonable assumption that the formal and informal opportunities to work in groups can have a positive impact on learning.

5.3.4 To determine whether postgraduate students' perceptions of their self-efficacy, have altered after undertaking postgraduate study.(RO 4)

Overall students' perceptions of self-efficacy were lower on completion of the taught programme than at the start. In other words, **students, on the whole, do not see themselves as having higher self-efficacy following the taught programme.** Again, this is unexpected since although literature suggests self-efficacy is not 'fixed', but may alter (Dweck, 1999) one aim of education is to equip students with self-belief (Bandura, 1995) and this is a stated aim in the programme guides (see section 2.6, and Appendices 1 & 3). If self-efficacy is having self-belief in a successful outcome that determines actions, behaviours and performance (Bandura, 1977, 1997) then findings suggest engaging in postgraduate education is not doing so. Literature notes one of the challenges faced by students in their transition to postgraduate education is the sense of isolation and lack of engagement with academic staff (Tobbell et al, 2010). Since encouragement is one of the mechanisms by which self-efficacy may be enhanced (Bandura, 1977), and paucity of useful and timely feedback is a source of postgraduate student concern (Leman, 2013) it is not unreasonable to suggest some students may benefit from more palpable support. Clearly, there is an opposing view in that one of the stated aims of postgraduate programmes (Appendices 1 and 3) is to create independent learners. While interview findings in this study (Chapter 4) suggest some students thrive in this environment, not all may be doing so, hence the lack of evolving self-efficacy.

Further interrogation of the findings reveals both males' and females' perceptions decrease. However, while males perceive their self-efficacy higher than females, the gap in perception between genders on completion of the taught programme is no longer significant. In other words the gap narrows between the genders. What may be deduced from this is while the programme does

not appear to increase self-efficacy perceptions for either gender, the gap between males and females is less pronounced. **In other words, females respond more positively to the programme in terms of the impact it has on their perceptions of self-efficacy.** There is considerable evidence in literature that females have lower self-efficacy perceptions than males in academic settings (Sullivan, 2009; Hogue et al, 2010; Choi, 2005; Colbeck et al, 2000). This study finds the opposite, in that postgraduate management education enhances the self-efficacy perceptions of females. What this suggests is that females thrive more in postgraduate education. One suggestion as to the reason for this may lie in evidence that females have higher self-efficacy for activities which are more stereotypically female, for example, language rather than maths. (Schoen et al, 1988; Vasil, 1992). It is possible that, linking this to the point made earlier regards groupwork females are flourishing more in situations which require collaboration, communication and mutual support. Given the overall result in that self-efficacy does not increase this does indicate an area for further research, particularly given the slight discrepancy suggested between the genders' results.

Those with work experience perceive themselves as more self-efficacious than those without, both at the start of the programme and at the end, **though not significantly so**. This is a different result from the other two scales in that this difference is not significant. In other words, having or not having work experience appears to make no difference to perceptions of self-efficacy. Looking further at the statistical evidence reveals a slight decrease in the mean scores of students with work experience from start to end of the taught programme, in other words students with work experience feel less efficacious after the programme. The same is true of those without work experience where the mean score decreases slightly. What this suggests is **the programme is having no positive impact on students' self-efficacy regardless of whether or not they have work** experience. Looking at the duration of work experience (detailed in Chapter 4) the overwhelming majority of students have worked for less than 2 year, with a significant proportion working for less than 6 months, and unsurprisingly, given this, job roles listed include what may be inferred to be low level occupations. Though some of this is inferred from the existing data, it is

reasonable to propose students do not make the link between their current role and their career aspiration, which may explain why their current work experience is making little impression on self- efficacy.

Analysis suggests that, at Institution Two, students' perceptions of self-efficacy at the start of their studies, are significantly higher than those at Institution One. On completion of the taught programme though Institution Two students' means score is still higher, the difference is negligible. The means for both sets of students, self-efficacy perceptions decrease, Institution One by 0.18, and Institution Two by 0.36. What may be concluded from this is **that neither institution appears to have a positive impact on students' perceptions of self-efficacy, but this lack of impact is less pronounced at Institution One.** In other words, studying at Institution Two makes less tangible impression than being a members of Institution One. An explanation for this may be in the relative status of each institution. Institution One is rated higher in a number of academic league tables, and in the national student survey than Institution Two. Students attach importance to brand and reputation, and this partly informs their choice of place to study (Nguyen et al, 2001; Mazzarol et al, 2002; Harrison et al, 2010). Modelling is a potent force in developing self-efficacy (Bandura, 1997; Schunk, Pintrich & Meece, 2010) and as such it is feasible that students' self-efficacy is enhanced by observing the success of others, which is a part of being a member of a highly regarded institution. There is support for this in the interview findings where one participant made specific reference to the pride in having studied at Institution One (see Chapter 4.13), believing it to have rigorous standards.

5.3.5 To explore the relationship between perceived skills and self-regulated learning, and between perceived skills and self-efficacy. (RO 5)

Findings indicate students with high perceptions of skills exhibit high perceptions of self-regulated learning, and students high in perceptions of skills are found to be high in their perceptions of self-

efficacy. There is support in the literature that employability may be conceptualised in terms including independent learning (Nabi, 2003) and that employability is informed by self-efficacy (Knight and Yorke, 2002; Zimmerman, 2008)

What this suggests is that addressing skills perceptions will have a positive impact on perceptions of self-regulated learning and self-efficacy, linking the three together. Relating this to this study, it has been reported that the overall student sample population shows a downwards trend in all three scales which suggests postgraduate management programmes are not having a positive impact on these three constructs. What the correlation shows is an opportunity in that interventions in one should see a positive impact on the others. For example, designing interventions to enhance students' perceptions of their skills should see a positive impact on their perceptions of self-regulated learning.

5.3.6 To examine where in the programme, interventions occur which have a memorable effect on students' perceptions of their employability (RO 6).

Following the aim of the qualitative research in adding richness and depth (Tashakkori and Teddlie, 2003; Flick, 2011) the purpose of using multi-methods is to offer a complementary dimension to a study (Creswell, 2003). The interview findings in this work have offered that insight. As noted, interviews were informed by the first analysis of the quantitative data which enabled some of the initial findings to be explored.

As noted the interview design followed the themes of the survey scales in that participants were asked to comment on – skills, self-regulated learning and self-efficacy, and identify where they believed experiences within the programme had a positive impact in relation to these. The particular experiences on the programme are presented here. In addition, the interviews offered an insight into participants' broader interpretations and definitions of employability, since this formed

the introduction to the interview schedule. These responses are pertinent to this study and included here.

Positive remarks were made from the majority of the participants where they saw the postgraduate programme preparing them for the 'real world' of industry, *"what it is like to work in real life"* (I, 4) and believing employers need people to fit in quickly, as noted in the literature (Raybould & Sheedy, 2005). Opportunities for groupwork were cited as an important part of the programme. It was noted that this encouraged students to work with people of difference ages, cultural backgrounds, abilities, standards, work ethic, and opinions, *"to put myself in other people's shoes"*, (I, 6) which may enhance tolerance, cultural awareness, commitment to others, problem solving, leadership and communication. The advantages of groupwork are well documented in literature (Jarvis et al, 2005; Mahoney, 1997; Mullins, 1999; Robbins, 2000; Weightman, 2004). Research suggests teamwork is a highly rated by employers (Nabi, 2003; Fallows et al, 2000; Raybould et al, 2005). It is clear that students achieve much from opportunities to work together, and is mentioned consistently in the employability frameworks presented in Chapter 2.

Participants noted being encouraged more to seek out information for themselves, and challenge theory recognising this is a shift from previous studies requiring an approach to learning which is *"more structured, more detailed and more organised"* (I, 7). Balanced with this independent learning approach was where participants noted what they saw as lecturers checking understanding in class. The relevance of this engagement with lecturers is of note since it has been suggested that one of the challenges in the transition to postgraduate education can be the perceived inaccessibility/unapproachability of academic staff (Tobbell et al, 2010). Linking this with the lack of increased perceptions of self-regulated learning it is possible that students fail to embrace the idea that they are expected to challenge theory. An element of social cognitive theory raises the notion of delayed application of learning (Schunk et al, 2010) and evidence to support this was found in the comment by one participant that the idea of being encouraged to think beyond the immediate situation, and apply knowledge in future situations was important.

Participants noted seeing others succeed, and feeling that they had a part in others' success, as having a positive impact on their own sense of achievement and satisfaction, comments which relate directly to self-efficacy, and that which enhances self-efficacy (Bandura (1977, 1982, 1997; Pajares, 2002). This suggests opportunities to do this are one way in which self-efficacy may be enhanced within the programme. Further, one participant articulated a sense of pride in being asked to offer his opinions/feedback by being asked to take part in this study, *"like you're interested in my opinion"* (I, 8) since this validated his self-worth that his opinion mattered to someone he perceived as important (a lecturer). A positive self-view plays a significant part in developing self-efficacy and the extent to which an individual employs self-regulated learning strategies (McCombs, 1986; Zimmerman, 1986). As such, it is suggested that this may be a way in which existing interventions – for example student feedback mechanisms - may be reviewed to enhance this idea.

Participants did not share a consistent view of employability, which is not unexpected since this is evident in the literature (see Chapter 2.5), but were consistent in their view that employability is articulated in terms of what employers want, rather than something more complex (Booth, 2003).

As noted earlier (Chapter 3.6) since the interview data was collected on completion of the programme the participants would have undertaken the dissertation, which forms part of the course. From the results there is evidence to suggest that the more positive comments in relation to independent learning, compared with the disappointing findings from the taught programme, are as a result of the nature of the dissertation which fosters a more independent and critical approach to study. Similarly, where qualitative date reports positive comments regards perceptions of employability, this suggests it is linked to the sense of mastery in having achieved the qualification. This finding presents an opportunity for further research into the impact of the dissertation.

5.4   Chapter Summary

This chapter has reviewed the research hypotheses, and findings related to these. The ensuing discussion has been structured around the Research Objectives which were informed by the literature, and presented in Section 2.10. In particular, the discussion has explored skills, self-regulated learning and self-efficacy and the journey experienced by students during their study.

CHAPTER SIX   CONCLUSION AND RECOMMENDATIONS

6.1   Introduction to the Chapter

This chapter draws together the findings from this study and revisits the main research question. In organising this chapter the contribution to knowledge is presented, key findings are summarised and conclusions drawn. The conclusions evolve from reflections on the study findings, and the implications these reflections imply. The limitations from this study are noted and addressed. The chapter concludes with recommendations for further research which have emerged from this work.

6.2   Contribution to Knowledge

It has been noted that much of the existing research around graduate employability is focussed on the undergraduate sector (McMillan and Weyers, 2006; Raybould & Sheedy, 2005; Rothwell et al, 2009), with a call for more work into this group coming from a range of stakeholders (Lees, 2002; Connor et al, 2009) and more recently in The Wilson Review (2012). This study has responded to that challenge. The importance of postgraduate education has been expounded, in relation to its range of stakeholders. It has been noted that postgraduate education seeks to address employability, as part of its remit (DIUS, 2008; HEFCE, 2012). Informed by literature this thesis has unpicked the construct of employability and presented a model of employability as informed by of skills, self-efficacy and self-regulated learning. The purpose of this study was to contribute to the employability literature, exploring whether postgraduate management education increases students' perceptions of their employability, notably their skills, self-regulated learning and self-efficacy. This thesis has achieved that purpose finding that, overall, postgraduate management education does **not** do so. The further extent of the contribution to knowledge is in exposing the specific areas where postgraduate management education **does** make a difference to students' perceptions. This

knowledge is of use to the stakeholders in postgraduate education – HEIs, students, employers, Government and the Wider Society.

In addition, this study has found a positive relationship between the three constructs, and identified interventions within the programmes which participants perceive as increasing their skills, self-regulated learning and self-efficacy in turn, and thus together, as detailed below.

6.3   Summary of Key Findings and the Research Question

The main research question asks **Does Studying Postgraduate Management Education increase students' perceptions of their employability**? At this point it is useful to recap the key findings from the study:

1   Perceptions of skills, self-regulated learning and self-efficacy, and thus employability, are not increased following the programme.

2   Postgraduate management education has a more positive effect on the perception of their skills, and on the perception of their self-efficacy on females, than on males.

3   Students with work experience have higher perceptions of their skills, and self-regulated learning than those without work experience.

4   Postgraduate management education has no effect on students' perceptions of self-efficacy regardless of whether or not they have work experience.

5   Students without work experience perceive their skills to be higher, and perceive themselves better able to manage their learning after postgraduate management education, than before.

6   Institutional differences can make a difference to students' perceptions of skills and self-regulated learning.

7   Perceptions of skills, self-regulated learning and self-efficacy are positively related.

In sum, the main Research Question which has framed this study asks 'does studying postgraduate management education increase students' perceptions of their employability'?

This research suggests the answer is only partly, which indicates an opportunity to reflect on the implications from this, and identify some recommendations for future study, which are presented below.

6.4   Implications from the Study

The perspective of students lies at the heart of this study, contributing to addressing the view that the voice of current students is under-represented (Tymon, 2011; Speight, 2013). As noted in Chapter 2, students are not the only stakeholders in Higher Education. Also, included are Employers, Government, HEIs and Wider Society (section 2.9). As such, while considering the findings noted above, it is also indicated where findings have implications for the other stakeholders, so as to highlight the broader impact of this work.

- It is disappointing to note that, overall, perceptions of skills, self-efficacy and self-regulated learning, and thus employability, do not increase following the taught programme. The implications of this are that the postgraduate programmes, as created and delivered by the HEIs, are not meeting their stated aims. This has implications, not just for the students undertaking the programme, but for HEIs in terms of the programmes they are developing and delivering to consider what employability means and how interventions may be introduced to enhance this. As noted in the literature, there are concerns that different stakeholders – specifically employers and the HEIs are not working collaboratively (Raybould et al, 2005). This concern is further raised in the Wilson Review (2012). This suggests an opportunity to review mechanisms for

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collaboration, for example how employers contribute to programme design. There are implications for the Government also, since high level skills is seen as key in attracting new business and contributing towards becoming a high performing economy (Leitch, 2006), as noted earlier in this study.

- The issue of discrepancy between genders is a key finding from this study. While there are implications for the students, there are also implications for other stakeholders. What this study has found is evidence that females benefit more than males from their postgraduate experience. Much of the evidence in the literature has noted females have lower expectations than males (Sullivan, 2009; Hogue et al, 2010; Choi, 2005; Colbeck et al, 2000; Mellanby et al, 2000). This study suggests that the postgraduate arena is the stage of education where they thrive more. Reflecting on the reasons for this, the findings from this research indicate that the strategies used in these postgraduate programmes accommodate females in particular. To clarify, while, for example, it has been suggested that females are less likely to compete in a group situation than males (Schoen et al, 1988), Underwood (2003) notes females are more likely to attempt to resolve group tension. An initial review of the literature suggests work examining gender differences in group situation has been undertaken with younger students/undergraduates (Lee, 1993; Gillies et al, 1995; Sullivan, 2009), with little at postgraduate level. While this indicates an opportunity for research as to whether females at a later stage in their education, may be less likely to underperform in group situations, which in turn enhances their self-efficacy further. For HEIs this suggests an opportunity to explore in more detail the design and delivery of programmes to review where interventions exist which may enhance group working, since the qualitative findings in this study make specific reference to its value, again an opportunity for another direction of research. There are further implications, particularly from the

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qualitative findings for HEIs, in determining whether there are any aspects of best practice from the postgraduate programmes which may be disseminated to enhance the employability of the undergraduate population. Looking beyond the HEIs there are implications for employers who may see an increase in applicants from women – more confident in applying for higher level jobs, rather than the current situation which sees women perceiving themselves as less employable and likely to earn as much as their male counterparts (Colbeck et al, 2001; Hogue et al, 2010). If it does prove to be the case that, perceiving their employability to be enhanced, women seek out higher level jobs this may see an impact on Government in terms of driving through family friendly legislation (for example extending current legislation relating to flexible working). The impact of this on our wider society would be in contributing to addressing gender inequality, which according to latest Government statistics (2014) is still prevalent in the workplace.

- Work experience features strongly in this study and the three findings summarised above (3, 4 and 5) suggest opportunities for stakeholders. Throughout this study it has been noted that employers value work experience (Archer et al, 2008), and findings from this study suggest those with work experience feel more positive about their employability than those without. Of particular interest is that this study has found those *without* work experience perceive their skills and self-regulated learning to be enhanced following the programme. There are implications for HEIs, employers and professional bodies here strengthening existing relationships to engender greater collaboration in the delivery of the curriculum to reflect the 'real world' experience. As noted above there are concerns that these groups do not work effectively together thus the findings here indicate a tangible benefit in doing so, in that employers and professional bodies can bring an industrial flavour to an academic programme. As

noted in this study, a high proportion of students join taught postgraduate programmes with no work experience (Martin et al, 2007). Finding the perceptions of employability in this group is enhanced has implications for our wider society in that buoyant students having had a positive experience act as ambassadors for the UK in general.

- That different institutions have an impact on students' perceptions suggests students may flourish in believing themselves members of an institution in which they take pride. At an institutional level this reaffirms the importance of building - and being - a positive brand. There are implications for the wider society also, in the importance of maintaining a presence on the academic world stage in that success breeds success.

- The link between self-efficacy and self-regulated learning has been noted in this study (Bandura, 2001; Schunk and Zimmerman, 1997). This study adds to knowledge by positing a link between perceptions of skills, self-efficacy and self-regulated learning to create a picture of employability. The implications here are that in addressing one the others will be enhanced. For example, it is hypothesised that by developing interventions as above whereby employers collaborate more extensively with HEIs, which may enhance skills perceptions, students' perceptions of self-regulated learning and self-efficacy will also be enhanced.

6.5   Limitations of this Study and Recommendations for Future Research

Throughout this study opportunities for future research have been noted. Some have suggested themselves from the literature, some from findings which fall outside the scope of this study, some as a direct result from a limitation of this work.

- It was noted in Chapter 4 that the overwhelming majority of students in the sample were in their twenties, and this figure is consistent with relevant HESA statistics (2011-12). As noted, this survey instrument made no distinction between students within their twenties which may prove an avenue for further research given the potential for personal development in the journey between 20 and 29.

- The sample for the interviews is small, and self-selecting. A larger sample would offer a broader research base and provide a more robust foundation for the findings. In addition, the sample self-selected. As such, those who participated may be unrepresentative of the research population, though biographical data does show the sample to be representative of institution, gender and programme. It may be that in agreeing to participate this is indicative of personal ease with self-reflection and confidence. These abilities may not be shared by all, which suggests a broader spread of responses may have been found with a larger sample size. While recognising the limitations of the interview sample size, there is an existing opportunity for more longitudinal research with those students. All who took part expressed an interest in this study and it would be useful to capitalise on that offer and determine perceptions of employability as their careers evolve. A more focussed review of individual career development would mitigate the small sample size, in this case.

- In relation to sample size it emerged through the analysis that fragmenting the sample into respective nationalities resulted in groups which are considered small for statistical analysis. The findings which were noted suggested Black/Black British Students consistently rated themselves higher than other nationality groups. Given the internationalisation of the postgraduate market, and the fluctuations in composition this suggests further work in determining whether there is a nationality dimension to any of these constructs. The importance here is that there is evidence - mainly in undergraduate research - that international students tend to stick together in academic

situations (Zhou, 2008; Harrison et al, 2010). Since literature suggests the importance of development through vicarious experience (Bandura, 1997; Pajares, 2002) this suggests reviewing the practice of allowing teams to self-select since this may be an opportunity missed. Further, sample size has resulted in small numbers of students when conducting some elements of the analysis as a result of variations in the student population.

- As noted throughout this study, there exists little work looking at employers' perception of postgraduates. Literature presented in this study has exemplified the extent of work which exists looking at what employers seek in graduates. Lack of awareness as to what postgraduates can bring (Barber et al, 2004; CIHE, 2010) and the importance employers attach to a postgraduate qualification strongly suggest an opportunity here to marry the two, identifying what postgraduates may bring, and articulating that to employers. Such work would develop and complement this study.

6.6   Conclusion

In conclusion, the following comments are presented which draw together this work's key points. As such they are presented as observations, though underpinned by the content of this thesis:

- At face value research shows postgraduate management education does not increase students' perceptions of their employability. As a bald statement this is disappointing, but the truth is this does not capture the important detail of what has been found, and as such requires more consideration.

- Specifically, this study has found females benefit more in terms of self-belief from their postgraduate experience than males. This is important in that this research

indicates that postgraduate study is the stage in education at which females thrive, a concept suggesting an opportunity for further research.

- Results indicate that postgraduate study has a positive impact on the self-belief of those without work experience.

- Qualitative findings in particular suggest elements within the programme which work well, and could be enhanced, particularly peer collaboration and 'real world' involvement. There has been a call for greater employer collaboration in higher education, noted throughout this report. This should be encouraged to strengthen the relevance of the programmes, which this study has suggested is of benefit to those lacking work experience.

- Encouraging teamwork provides opportunities for enhancing self-efficacy through modelling and vicarious experience (Bandura, 1997; Zimmerman, 2008).

- The importance of reflection, and the role reflection plays in learning and development permeates this study. This suggests encouraging students to reflect on their experiences which may, in turn, encourage students to register a perceived increase in their employability.

6.7   Chapter Summary

This chapter has drawn together the findings from this study to address the main research question. The contribution is noted, as are the implications for stakeholders. Limitations from this study have been identified, and noted as opportunities for further research, in turn addressing the call for work in this area. The conclusions inform the recommendations for further research which have emerged from this study.

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(adapted from Garcia Duncan T & McKeachie W (2005) The Making of the Motivated Strategies for Learning Questionnaire, Educational Psychologist, 40:2, 117-128)

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Relevant Section from QAA Standards

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Preface

Subject benchmark statements provide a means for the academic community to describe the nature and characteristics of programmes in a specific subject or subject area. They also represent general expectations about standards for the award of qualifications at a given level in terms of the attributes and capabilities that those possessing qualifications should have demonstrated.

This subject benchmark statement refers to **master's degrees** in business and management.

early and significant contribution to their employer.

3 Subject knowledge, understanding and skills

Subject knowledge, understanding and skills specific to each type of master's degree

Type 1: Specialist master's degrees

3.7 There is an expectation that these programmes usually build upon prior knowledge and skills gained from a relevant first degree (or equivalent) and prior experience (where appropriate). Master's graduates will be able to demonstrate deep knowledge and understanding of the specialist subject area while placing that subject

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within a wider organisational and contextual framework. They will understand current issues and thinking along with techniques applicable to research in the subject area. Graduates will have both theoretical and applied perspectives and will be able to apply a range of specialist skills to the organisations (and their context) in which they as specialists may operate. Some of these programmes will act as the front end of research degrees.

Types 2 and 3: Generalist master's degrees

3.8 Graduates will be able to demonstrate a broad knowledge and understanding of organisations, the external context in which they operate and how they are managed, as outlined above. They will be able to understand, respond to and lead change and be able to demonstrate intellectual breadth by making integrative links across the various areas of organisations. They should be able to demonstrate an additional range of skills beyond those general skills expected of first degree holders. The differences between type 2 (career entry) and type 3 (career development) graduates are outlined below:

3.8.1 **Type 2**

   Graduates will have a sound theoretical grounding in the broad area of business and management and will have developed a range of analytical and personal skills. However their practical knowledge and skills will necessarily be limited by the constraints of the pedagogical process. They should have value added above

their first degree by having a clear understanding of how their initial discipline may be utilised effectively within an organisational context.

3.8.2 **Type 3**

Graduates will have been able to ground their new knowledge within the base of their professional experience. They will be able to reflect on and learn from that prior experience and thus be able to integrate new knowledge with past experience and apply it to new situations. They will be able to challenge preconceptions and to remove subject and functional boundaries so as to handle complex situations holistically. They should also have particular strengths in analysing, synthesising and solving complex unstructured business problems. In addition to being able to communicate their findings, they should have developed the skills to implement agreed solutions effectively and efficiently. They should therefore have strongly developed interpersonal skills and to be able to interact effectively with a range of specialists.

3.9 For generalist programmes (types 2 and 3), graduates should be able to collect relevant information across a range of areas pertaining to a current situation, analyse that information and synthesise it into an appropriate form in order to evaluate decision alternatives. Within the broad framework of organisations, their external context and management, it is therefore expected that graduates will gain knowledge and develop understanding in the following areas:

markets - the development and operation of markets for resources, goods and services

customers - customer expectations, service and orientation

finance - the sources, uses and management of finance; the use of accounting and other information systems for managerial applications

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people - the management and development of people within organisations

operations - the management of resources and operations; information systems; the development, management and exploitation of information systems and their impact upon organisations

communication and information technology (CIT) - comprehension and use of relevant CIT for application in business and management

business policy and strategy - the development of appropriate policies and strategies within a changing environment, to meet stakeholder interests

pervasive issues - these would include sustainability, globalisation, corporate social responsibility, diversity, business innovation, creativity, enterprise development, knowledge management and risk management.

Skills for all master's programmes

3.10 Graduates are expected to be able to demonstrate a range of cognitive and intellectual skills together with techniques specific to business and management. They should also demonstrate relevant personal and interpersonal skills. These include:

being able to think critically and be creative: manage the creative processes in self and others; organise thoughts, analyse, synthesise and critically appraise. This includes the capability to identify assumptions, evaluate statements in terms of evidence, detect false logic or reasoning, identify implicit values, define terms adequately and generalise appropriately

being able to solve complex problems and make decisions: establish criteria, using appropriate decision-making techniques including identifying, formulating and solving business problems; and the ability to create, identify and evaluate options; the ability to implement and review decisions

the ability to conduct research into business and management issues either individually or as part of a team through research design, data collection, analysis, synthesis and reporting

using information and knowledge effectively: scanning and organising data, synthesising and analysing in order to abstract meaning from information and to

share knowledge

   numeracy and quantitative skills including the development and use of relevant business models

   effective use of CIT

   effective two-way communication: listening, effective oral and written communication of complex ideas and arguments, using a range of media, including the preparation of business reports

   high personal effectiveness: critical self-awareness, self-reflection and selfmanagement; time management; sensitivity to diversity in people and different situations and the ability to continue to learn through reflection on practice and experience

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   effective performance within team environments and the ability to recognise and utilise individuals' contributions in group processes and to negotiate and persuade or influence others; team selection, delegation, development and management

   leadership and performance management: selecting appropriate leadership style for different situations; setting targets, motivating, monitoring performance, coaching and mentoring

   ability to recognise and address ethical dilemmas and corporate social responsibility issues, applying ethical and organisational values to situations and choices.

5 Benchmark standards

5.1 Master's degrees in the business and management field are awarded to students who have demonstrated during their programme:

   a systematic understanding of relevant knowledge about organisations, their external context and how they are managed

   application of relevant knowledge to a range of complex situations taking account of its relationship and interaction with other areas of the business or organisation

   a critical awareness of current issues in business and management which is informed by leading edge research and practice in the field

   an understanding of appropriate techniques sufficient to allow detailed investigation into relevant business and management issues

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   creativity in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to develop and interpret knowledge in business and management

   ability to acquire and analyse data and information, to evaluate their relevance and validity, and to synthesise a range of information in the context of new situations

   conceptual understanding that enables the student to:

   evaluate the rigour and validity of published research and assess its relevance to new situations

   extrapolate from existing research and scholarship to identify new or revised approaches to practice

   ability to conduct research into business and management issues that requires familiarity with a range of business data, research sources and appropriate methodologies, and for such to inform the overall learning process

   ability to communicate effectively both orally and in writing, using a range of media

   operate effectively in a variety of team roles and take leadership roles, where appropriate.

5.2 Once they are in professional practice, master's graduates should be able to:

   consistently apply their knowledge and subject-specific and wider intellectual skills

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deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to a range of audiences

be proactive in recognising the need for change and have the ability to manage change

be adaptable, and show originality, insight, and critical and reflective abilities which can all be brought to bear upon problem situations

make decisions in complex and unpredictable situations

evaluate and integrate theory and practice in a wide range of situations

be self-directed and able to act autonomously in planning and implementing projects at professional levels

take responsibility for continuing to develop their own knowledge and skills.

Questionnaire: Post Graduate Self Efficacy

Instructions

This questionnaire explores the belief that you have in your achievement on your postgraduate programme. It is not a test so there are no right or wrong answers. The questionnaire is part of a study which will help us to understand how you learn. This will enable us to determine how best to develop teaching and learning approaches, not just on your programme, but others across the university.

Your participation is entirely voluntary, however, completing the questionnaire may serve to encourage you to think about how you learn, which will help you develop your skills as a reflective practitioner. All your answers will be treated in complete confidence. Completed questionnaires will be analysed by the researcher, and not seen by any other member of your programme team. You will not be asked for your name, but need to provide the examination number on your student card. There are two reasons we need this number, firstly, to enable questionnaires to be coded by computer, and secondly, because we are interested in any changes in responses to a second questionnaire you will be invited to complete towards the end of your studies. Results of the survey will be made available to all those who participate.

The questionnaire is divided into 3 sections. The first section asks for background details about you. The second section asks about your work experience. Section 3 comprises a number of statements about how you learn and you are asked to circle one response which best describes what you think.

The questionnaire will take about 25 minutes to complete. Please remember there is no right or wrong answer. It is your opinion, and in general, the first response you think of is the best one to put. Please answer all the questions

Section 1   **Background Details**   **Student Number** _____

1   **Your Programme**

MSc   in   _____   (write   name   of

programme) *or* ☐

MBA   (√)

2   **Mode of Study (tick √ one box)**

Full time   ☐   Part time   ☐

3   **Age: (tick √ one box)**

Under 20   ☐   20-29   ☐   30-39   ☐

40-49   ☐   50-59   ☐   over 60   ☐

4   **Gender:**

Male   ☐   Female ☐

5   **Nationality**   **(tick √ one box)**

White – British
White –

Irish
White – other background : Please specify _____
Black or Black British – Caribbean
Black or Black British – African
Black or Black British – other background : Please specify _____
Asian or Asian British – Indian
Asian or Asian British – Pakistani
Asian or Asian British – Bangladeshi
Chinese
Asian or Asian British – Other Asian background

Mixed - White and Black Caribbean
Mixed - White and Black African
Mixed - White and Asian
Mixed – other background : Please specify _____
Other ethnic background : Please specify _____
Information Refused

Section 2   Work Experience

The following questions relate to your work experience, in particular whether you have work experience and, if so, the type of work you have done.

1   Do you have any work experience?

Yes ☐   No ☐

If yes please go to question 2. If no please go to Section 3.

2   Tell us about your current / most recent job

What is/was your job title?   _____

3   Is/was this work   Part time?   ☐

Full time?   ☐

4   How long have you been/were you in this job?

Less than 6 months	☐	6 months – 1 year	☐
1-2 years	☐	3-5 years	☐
6-10 years	☐	10+ years	☐

5   How long have you worked/did you work for this company?

Less than 6 months	☐	6months – 1 year	☐
1-2 years	☐	3-5 years	☐
6-10 years	☐	10+ years	☐

Section 3   You and your academic studies.

The following statements relate to your academic work. The questions are concerned with how you feel about your studies and how you approach academic work. If you think the statement is **not at all** true of you circle 1; if the statement is **very true** of you, circle 7. If the statement is more or less true of you, circle the number between 1 and 7 which best applies to you.

		1=Not at all				7=very true of me		
1	On a programme like this, I prefer material that really challenges me so I can learn new things		2	3	4	5	6	7
2	If I study in appropriate ways, I will be able to learn the material on this programme	1	2	3	4	5	6	7
3	When I take exams or in-class exercises I think about how badly I may be doing compared with other students	1	2	3	4	5	6	7
4	I think I will be able to use what I learn in this module in other modules	1	2	3	4	5	6	7
5	I think I will receive excellent grades on this programme	1	2	3	4	5	6	7
6	I am certain I will be able to understand the most difficult material I am required to read for this programme	1	2	3	4	5	6	7
7	At this moment, achieving good marks on this programme is the most satisfying thing for me to achieve.	1	2	3	4	5	6	7
8	It is my own fault if I do not learn the material on this programme	1	2	3	4	5	6	7
9	It is important for me to learn what is being taught on this programme	1	2	3	4	5	6	7
10	I am confident I can understand the basic concepts taught on this programme	1	2	3	4	5	6	7
11	If I can, I want to get better marks on this programme than most of the other students	1	2	3	4	5	6	7
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	I worry about the consequences of failing exams	**1**	**2**	**3**	**4**	**5**	**6**	**7**
13	I am confident I will be able to understand the most complex material my lecturer gives me	**1**	**2**	**3**	**4**	**5**	**6**	**7**
14	On a programme like this I prefer material that arouses my curiosity, even if it is difficult to learn.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
15	I am very interested in the content of this programme	**1**	**2**	**3**	**4**	**5**	**6**	**7**
16	If I try hard enough , then I will understand the material on this programme	**1**	**2**	**3**	**4**	**5**	**6**	**7**
17	During exams or in-class exercises I feel uneasy and upset	**1**	**2**	**3**	**4**	**5**	**6**	**7**
18	I am confident I can do an excellent job on the assessments for this programme	**1**	**2**	**3**	**4**	**5**	**6**	**7**
19	I expect to do well on this programme	**1**	**2**	**3**	**4**	**5**	**6**	**7**
20	The most satisfying thing for me on this programme is trying to understand the material as thoroughly as possible	**1**	**2**	**3**	**4**	**5**	**6**	**7**
21	I think that what I am learning in this module is useful for me to know	**1**	**2**	**3**	**4**	**5**	**6**	**7**
22	If the lecturer allows us to chose topics to study I often chose topics I will learn something from, even if it requires more work	**1**	**2**	**3**	**4**	**5**	**6**	**7**
23	If I don't understand the material, it is because I did not try hard enough.	**1**	**2**	**3**	**4**	**5**	**6**	**7**
24	I like what I am learning on this programme	**1**	**2**	**3**	**4**	**5**	**6**	**7**
25	I believe this programme will increase my understanding of management theory	**1**	**2**	**3**	**4**	**5**	**6**	**7**
26	Understanding what I am studying is very important to me	**1**	**2**	**3**	**4**	**5**	**6**	**7**
27	I know that I will be able to master the skills taught on this programme	**1**	**2**	**3**	**4**	**5**	**6**	**7**
28	I want to do well on this programme because it is important to demonstrate my ability to family, friends, employers and others	**1**	**2**	**3**	**4**	**5**	**6**	**7**
29	Considering the difficulty of this programme I am confident I will do well	**1**	**2**	**3**	**4**	**5**	**6**	**7**

30	When I study I try to plan and organise my thoughts	1	2	3	4	5	6	7
31	On occasion, in class, I can miss important points because I am thinking of other things	1	2	3	4	5	6	7
32	When studying on this programme I often try to explain material to fellow students	1	2	3	4	5	6	7
33	I am confident I am able to write reports and assessments of the standard required for this programme	1	2	3	4	5	6	7
34	I usually study in a place where I can concentrate	1	2	3	4	5	6	7
35	I ask myself questions to make sure I know the material I have been studying	1	2	3	4	5	6	7
36	I often feel so lazy or bored I stop studying before I had intended to.	1	2	3	4	5	6	7
37	I often question things from this programme, to decide if I find then convincing	1	2	3	4	5	6	7
38	I believe this programme will increase my knowledge about the practice of management	1	2	3	4	5	6	7
39	Even if I am struggling to learn I try to work alone without help from others	1	2	3	4	5	6	7
40	When I become confused about something I'm reading I go back and try to work it out	1	2	3	4	5	6	7
41	When I study I go through my notes to try to identify the key points	1	2	3	4	5	6	7
42	I make good use of my study time on this programme	1	2	3	4	5	6	7
43	If something is difficult to understand I try to look at it in a different way	1	2	3	4	5	6	7
44	I am able to persuade others to accept my opinion	1	2	3	4	5	6	7
45	I try to work with fellow students to complete work	1	2	3	4	5	6	7
46	I look for evidence to support theories presented to me	1	2	3	4	5	6	7
47	I work hard to even when I don't like a module	1	2	3	4	5	6	7

No.	Statement	1	2	3	4	5	6	7
48	I use charts, diagrams or tables to organise my work	1	2	3	4	5	6	7
49	When studying, I set aside time for discussion with fellow students	1	2	3	4	5	6	7
50	I treat the material from class as a start from which to develop my own ideas	1	2	3	4	5	6	7
51	I find it hard to stick to a plan of work	1	2	3	4	5	6	7
52	I am able to work with others to achieve an outcome which is acceptable to all	1	2	3	4	5	6	7
53	When I study, I gather information from a variety of sources	1	2	3	4	5	6	7
54	I skim through study material first to see how it is organised	1	2	3	4	5	6	7
55	I ask myself questions to test my understanding of what I am studying	1	2	3	4	5	6	7
56	I try to change the way I study to suit the module or the lecturer's teaching style	1	2	3	4	5	6	7
57	I am good at questioning others to gather information	1	2	3	4	5	6	7
58	I often find that I have been reading for class but don't understand what it is all about	1	2	3	4	5	6	7
59	I ask the lecturer to clarify concepts I do not understand	1	2	3	4	5	6	7
60	Feedback I receive from the lecturer helps me improve my work	1	2	3	4	5	6	7
61	When work is hard I either give up or study only the easy parts	1	2	3	4	5	6	7
62	I try to think through subject material and decide what I am suppose to learn, rather than simply read it	1	2	3	4	5	6	7
63	I try to relate ideas from one module to another	1	2	3	4	5	6	7
64	When studying, I re-read my notes and highlight important concepts	1	2	3	4	5	6	7
65	When I study I try to relate the material to what I already know	1	2	3	4	5	6	7
66	I am good at presenting information and ideas to an audience	1	2	3	4	5	6	7

67	I have a regular place set aside for studying	1	2	3	4	5	6	7
68	I generate my own ideas related to what I am studying	1	2	3	4	5	6	7
69	I summarise the key ideas from lectures and my reading.	1	2	3	4	5	6	7
70	When I do not understand something I ask a fellow student for help	1	2	3	4	5	6	7
71	I try to relate concepts from lectures to what I read	1	2	3	4	5	6	7
72	I manage my study time well on this programme	1	2	3	4	5	6	7
73	I consider possible alternative to ideas proposed in class	1	2	3	4	5	6	7
74	I attend class regularly	1	2	3	4	5	6	7
75	I work well with other people	1	2	3	4	5	6	7
76	Even when what I am studying is dull and uninteresting, I keep working until I finish	1	2	3	4	5	6	7
77	I try to identify the fellow students whom I can ask for help if necessary	1	2	3	4	5	6	7
78	After I complete an assessment or in-class activity I think about what I could do differently in future to improve the result	1	2	3	4	5	6	7
79	When studying I try to identify which concepts I do not understand well	1	2	3	4	5	6	7
80	I often find other activities prevent me from spending much time on this programme	1	2	3	4	5	6	7
81	At the start of a study session I set myself goals to focus the time	1	2	3	4	5	6	7
82	If I get confused while taking notes during a lecture I make sure to sort it out afterwards	1	2	3	4	5	6	7
83	If I am supposed to read notes or prepare other material before a class I rarely find time to do so	1	2	3	4	5	6	7
84	I try to apply ideas I have read about when I come to the lecture or workshop	1	2	3	4	5	6	7

THANK YOU FOR TAKING PART

PhD Semi-structured Interview

Aim: to explore whether pg mgt education creates employable students

Section 1   Intro

My aim –greetings / how long since studies complete

Overview of employability in this context

Section 2   Employability

Understanding?

Application of theory

Reports/assessment

Increase knowledge of practice

Persuade others to my view

Work with others/presenting

Section 3   Learning

Organised learner?

Confident in learning style?

Opportunities to reflect?

Changes in learning approach?

Section 4   Self-efficacy

(mastery) your sense of achievement

(Verbal persuasion) impact of feedback on learning/confidence/changed

(Vicarious)   seeing others succeed?/fail

(Emotional arousal) anxiety/change?

Worth it?

Main thing you recall?

Anything to add

Conclusion / THANKS / Feedback of transcript