The Changing Higher Education Environment in England: A Study of Student Perceptions

A thesis submitted for the degree of Doctor of Philosophy

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ABSTRACT

The English Higher Education system continues to face many political and organisational changes with respect to funding, fees, student numbers and quality controls. Within this changing landscape, the introduction of up to £9,000 annual tuition fees for Home/EU undergraduates probably has the highest impact on students' perceptions, their decision-making and, most of all, expectations in relation to their university experience. To investigate the implications of recent changes, an exploratory research approach is applied, using mixed methods across three distinct research phases. An initial study aims to measure the expectations of commencing students in light of the fee changes and to explore how demographic and other personal characteristics influence student expectations in relation to their overall university experience and specifically to the ancillary services offered by Higher Education Institutions. Through this, services related to student employability are identified as an area of increasing concern for students. The second study aims to further investigate this area from a student perspective through the exploration of students' motivations to participate in an extra-curricular employability programme. The expectations regarding such a programme are also investigated prior to the programme and the satisfaction levels of students after the completion of the programme are evaluated. The analysis of the second study suggests that confidence is a key factor within the context of student employability. Consequently, the final study aims to explore the role and importance of confidence within employability from a student point-of-view and to evaluate how confidence and employability may be developed throughout the university experience. From this study, it is argued that Higher Education Institutions should focus on the development of confidence within students in order to improve their employability. As an outcome, recommendations are formed on how to support such development through general and course-specific activities within and outside the curriculum. Overall, the research addresses various gaps within the fields of interest, particularly through the focus on a student perspective, and provides methodological, theoretical and practical contributions. The different stages of the research suggest that it is important to the competitiveness and strength of universities to understand student expectations and to design and develop high-quality university experiences which meet the needs and demands of students. Based on the data collected, recommendations are given on how Higher Education Institutions can manage and meet student expectations and develop activities to enhance student employability and increase confidence.

DECLARATION

I declare that this thesis has not already been accepted in substance for any degree and is not concurrently submitted in candidature for any degree. It is the result of my own independent research except where otherwise stated.

This thesis contains the following material that has been published or submitted for publications as a result of this research.

Submitted papers

Lecca, H. and Macredie, R.D. (2014). The Influence of Gender on Trust and Decision-Making Associated with Online Travel Reviews. Submitted in November 2014 to *International Journal of Internet Marketing and Advertising*.

Lecca, H. and Macredie, R.D. (2015). Expectations of ancillary services: a study of commencing students at an English university. Submitted in January 2015 to *Educational Research.*

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ACRONYMS AND ABBREVIATIONS

BIS	Department for Business, Innovation and Skills
CVCP	Committee of Vice-Chancellors and Principals
DLHE	Destinations of Leavers from Higher Education (survey)
EDP	Expectancy-disconfirmation theory
EFA	Exploratory Factor Analysis
EU	European Union
FEC	Further Education College
GDP	Gross Domestic Product
GGA	Generic graduate attributes
HE	Higher Education
HEAR	Higher Education Achievement Report
Hefce	Higher Education Funding Council for England
HEI(s)	Higher Education Institution(s)
HEQC	Higher Education Quality Council
HESA	Higher Education Statistics Agency
KIS(s)	Key Information Set(s)
LEA	Local Education Authority
NCIHE	National Committee of Inquiry into Higher Education
NSP	National Scholarship Programme
NSS	National Student Survey
OFFA	Office for Fair Access
PCC	Placement and Career Centre
PG	Postgraduate
PRES	Postgraduate Research Experience Survey
PTES	Postgraduate Taught Experience Survey
QAA	Quality Assurance Agency in Higher Education
SCT	Social cognitive theory
SIVS	Strategically important and vulnerable subjects
SNC	Student number controls
TQA	Teaching Quality Assessment
UCAS	Universities and Colleges Admission Service
UG	Undergraduate
UGC	University Grants Committee
UK	United Kingdom
UKRC	United Kingdom Research Councils
VLE	Virtual learning environment

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CHAPTER 1: Introduction

1.1 Introduction

This chapter sets the scene for the thesis, which investigates the impact of the changing Higher Education environment in parts of the UK (United Kingdom) on students' expectations and the resulting implications for Higher Education Institutions. After providing a broad introduction to the topic of the thesis, the problem is identified and the significance of the study explained. The aim and objectives of the research are stated and then the research approach used to achieve the aims and objectives is explained. An overview of the overall structure of the dissertation is provided at the end of this chapter.

This remainder of this chapter is structured as follows. Section 1.2 will provide background information on the research problem and discuss the motivation for this study. Section 1.3 will define the research aim and objectives based on the research problem and motivation. Section 1.4 will describe the research approach adopted in the study and Section 1.5 will explain the scope of the study and outline the areas of theoretical and practical contribution made by this thesis. Finally, Section 1.6 will present the overall thesis structure.

1.2 Background and Motivation

The Higher Education (HE) sector in England has been undergoing fundamental changes over recent years. There is increasing interest from the government, students and their parents, society in general, and the media in relation to the quality of experience and value for money, alongside increasing restrictions on the overall funding for Higher Education Institutions (HEIs) and attempts to alter the dynamics of undergraduate (UG) student applications through a pseudo-market. This had led to a new funding scheme being imposed by the government, altering the student number allocation models that were linked to funding, replacing them with much more limited public funding through the funding councils and increased student fees for UK (home) students and students from the European Union (EU) (Browne, 2010). There is some evidence that this may discourage applications from certain groups (Wilkins *et al*., 2013), leading to them missing out on places at UK HEIs; other students who do apply,

and go on to study, will graduate with much higher levels of personal debt under the new regime. These high fee levels and fears of debt are argued generally to be increasing expectations around students' experiences of all aspects of university life (Woodall *et al*., 2014; Wilkins *et al*., 2013; Grebennikov and Shah, 2012; Gruber *et al*., 2010; Munteanu *et al*., 2010).

Further, the elements of competition that the government has introduced in relation to Home/EU undergraduate admissions have led to universities now competing for students and funding much more clearly than in the past. With funding increasingly depending on the number of student enrolments, some universities are expanding by taking students with tariff scores that make them part of an 'un-regulated' cohort in terms of admissions, seeing a consequent rise in income. Others are finding it more difficult to recruit and may not even fill their core student numbers as defined by the funding/regulatory bodies (such as the Higher Education Funding Council for England (Hefce).

These changes are being applied in a HE system that has seen significant growth over the past 15 years, moving it to a mass education system. Part of the move to protect quality in the system has been the introduction of quality assessment regimes, such as (originally) Teaching Quality Assessment (TQA), Subject Review, Institutional Audit, Institutional Review, and the National Student Survey (NSS), focused on learning and teaching, quality assurance and student experience. However, these assessments have often been criticised as not providing accurate representations of the reality of the HE environment (Watson, 2009; Becket and Brookes, 2008; Lee, 2005; Green, 1995).

Nevertheless, the data from such quality assessments, particularly the NSS given its annual cycle, are increasingly seen as important in providing information to prospective students and related decision-makers on the quality of individual universities and specific programmes. Indeed, they are now included as part of what are called Key Information Sets (KISs), which are made available to inform student choices. This reflects a government desire to promote informed choice for students and reflects an overt view of students as customers or consumers.

Part of this narrative is that universities often fail to show sufficient customer focus and do not provide satisfactory customer services to their students and that making information on student experience and outcomes available will support informed

choices in terms of where and what to study, as well as focusing universities on improving 'what they offer'.

Against this landscape, it may be argued that the English HE sector has reached a critical juncture where improvements in, and new approaches to the enhancement of, the student experience, including the quality of teaching and learning and the quality of ancillary services, will be needed. Though HEIs may well continue to find ways to improve the student experience by addressing individual issues and processes, this thesis argues that a wider perspective is needed.

In order to close the gap in the literature and expand the knowledge in this area, this thesis explored issues around the quality of ancillary services in general, and from a student perspective specifically, through an initial study. One of the key outcomes of this first stage of the research identified student employability as an important factor for students' expectations and satisfaction. In light of the recent changes in the HE environment, especially considering the financial implications for graduates of obtaining a degree, employability is an increasingly important outcome of the HE experience – not only for graduates but also for HEIs, employers and wider society.

In spite of the rising tuition fees in England, the number of graduates applying for a position in the labour market has constantly increased and the number of vacancies offered by traditional graduate recruiters does not cater for the number of graduates. Consequently, the graduate employment market remains highly competitive, leading to high graduate unemployment rates and long lead-times before successful applications (AGR, 2013; HESA, 2012; High Fliers Research, 2012). Additionally, the changing focus and demand of employers in relation to technical versus soft skills makes it clear that a university degree alone is no longer sufficient for an individual to be/stay employable and competitive (CBI and NUS, 2011; Tomlinson, 2008). Bearing in mind that students often base their choice for an HEI on factors such as an institution's employability prospects and rates, supporting and increasing the development of employability skills within their graduates should be a key objective of HEIs.

In order to explore this topic further from a student perspective, a second study investigated, first, the motivations and expectations of UG students to participate in an employability programme offered by a specific university and, second, measured the satisfaction of the participants in relation to their expectations after completion of the

programme. As a result, confidence was identified as a key concept within the context of student employability. This seems obvious considering the close relationship of employability skills (which 'assemble' an individual's level of employability) to cognitive processes and related constructs, such as confidence. Nevertheless, the literature does not sufficiently clarify the role and importance of confidence within employability and also does not identify the function of HEIs in relation to the development of confidence. Student interviews were therefore conducted to gather in-depth knowledge in relation to these aspects, forming the third phase of data collection and analysis as part of this research effort.

After attempting to close some of the gaps in the literature and expanding the knowledge around student expectations, employability and confidence, this research argues that it is crucial for the competitiveness and survival of HEIs to understand student expectations and to develop a high-quality university environment that satisfies students. Further, it should be one of the main objectives of HEIs to develop and enhance confidence and employability in students in order to create beneficial outcomes for all stakeholders involved, primarily graduates, HEIs and employers.

1.3 Research Questions, Aims and Objectives

Motivated by the changes and challenges affecting the English HE sector and its stakeholders, this study investigates the implications of these changes for students and English HEIs from a student perspective. Specifically, as research within HE often focuses on issues directly related to teaching and learning, this thesis will focus on the various aspects within the HE experience which are not directly related to teaching and learning, i.e., ancillary services. Accordingly, the initial aim of the research is to answer the following questions:

Are the recent changes in the English HE sector influencing student expectations in relation to ancillary services?

If yes, to what extent and what are the implications for HEIs?

Which factors are influencing students' initial concerns and expectations of ancillary services before they have actually experienced the HEI services?

The first study therefore aims to, first, broaden the research evidence about commencing students' expectations and concerns in relation to ancillary services and, second, to investigate whether there are differences in expectations within the commencing student cohort based on demographic and other characteristics.

The analysis of this initial, exploratory study leads to the development of a second study, which aims to further investigate the topic of student employability, specifically from a student perspective. The aim of the second study is achieved through the investigation of an employability programme implemented by an English university. As such, the objectives of the second study are to find answers to the following questions:

What are the motives and motivations of students to participate in a non-credit bearing employability programme?

What are the expectations of students regarding such a programme?

To what extent has the employability programme met the participants' expectations and satisfied their individual needs? and

Based on a student perspective, how could such an employability programme be optimised?

As an outcome of the second study, confidence is identified as a key issue within student employability and the development of employability skills. With the literature in this field being scarce and inconsistent, the aim of the final study is therefore to explore the concept of confidence within employability from a student perspective and to provide answers to the following questions:

What are student perceptions and understandings of the concepts of employability and confidence?

What is the role of confidence in relation to student employability and skills development? and

How c*an HEIs support and enhance employability skills and confidence development in students?*

In order to address the stated aims and research questions, the following research objectives are established for the overall thesis and each individual study:

- To present a review of the relevant literature in the area of Higher Education in England, with specific focus on the recent changes within the sector.
- To carry out an initial, exploratory study (study 1), within which the objectives are:
    - To present an in-depth analysis of relevant literature in the areas of quality, expectations and satisfaction in the HE context;
    - To develop and apply a methodology which enables the evaluation the expectations of commencing students;
    - To develop a set of recommendations for HEIs for the development and improvement of services and processes in order to offer high quality services which meet student expectations and lead to satisfaction.
- To carry out a second field study (study 2), within which the objectives are:
    - To present an in-depth analysis of relevant literature in the area of student employability;
    - To develop and apply a methodology which enables assessment of the motivations and expectations of students to participate in an employability programme;
    - To develop and apply a methodology which enables measurement of the satisfaction of participating students with the employability programme;
    - To develop a set of recommendations for HEIs to support the development of employability and employability skills within their student cohorts.
- To carry out a final study (study 3), within which the objectives are:
    - To present an in-depth analysis of relevant literature in the areas of confidence and related concepts, confidence in the HE context, and confidence within employability;
    - To develop and apply a methodology which enables the in-depth investigation of confidence within the context of student employability from a student perspective;
    - To develop a set of recommendations for HEIs to support the development of confidence within students with the wider aim of improving students' employability.
- To provide a set of guidelines and recommendations from the insights gained from the three studies.

1.4 Research Strategy

To fulfil the stated aims and objectives, the research applied an exploratory research approach, using various qualitative and quantitative methods, such as focus groups, surveys and semi-structured interviews. The data was collected in three distinct research phases, with the outcomes of the preceding phase leading to the development and implementation of the proximate phase. Throughout the three phases, different sets of recommendations in relation to managing student expectations, enhancing student employability and supporting confidence development in students were developed.

While the subsequent chapters will explain the overall research approach for this study and the individual methodologies for each research phase in more detail, Table 1.1 briefly summarises the tools applied within each study and the time-frame of their implementation.

Study 1: Student expectations	
June/July 2012	Focus group setting for the development of a new questionnaire
September 2012	Main study: Questionnaire – Iteration 1 (N = 272)
September 2013	Main study: Questionnaire – Iteration 2 (N = 268)
Study 2: Student employability	
September 2013	Pilot study: pre-programme questionnaire
September 2013	Main study (N = 136)
November 2013	Pilot study: post-programme questionnaire
December 2013	Main study (N = 92)
Study 3: Confidence development in students	
October 2014	Pilot study: semi-structured interviews with students
November/ December 2014	Main study (N = 22)

TABLE 1.1: SUMMARY OF THE APPLIED RESEARCH TOOLS

The first study used a grounded approach to develop a survey tool to explore and measure commencing student expectations. This questionnaire was deployed twice, with the questionnaire being slightly revised for the second iteration. The second study used two questionnaires, one conducted before and one after the completion of an employability programme. The third study employed semi-structured interviews in order to investigate the topics of interest in-depth.

The studies were carried out with UG students drawn from all departments of Brunel University London during the period 2012 to 2014. As mentioned above, data collection was conducted through the use of questionnaires and semi-structured interviews and analysed using software such as SPSS, as well as through thematic analysis.

1.5 Research Scope and Contributions

This research envisaged contributing theoretically and/or practically to the existing research domain within each study. The first study is expected to expand the existing research within an under-investigated and difficult-to-approach population, namely commencing students before they have directly experienced HE services. Further, new insights should be gathered through the integration of additional factors and variables, such as funding scheme, status and selection, in order to measure their impact on student expectations, while simultaneously considering the current changes in the English HE sector. The second study will contribute to the sparse empirical research in the field of student employability and the data is expected to provide evidence of how to design or optimise employability programmes offered by HEIs. The third study will further complement the research on student employability and add to existing research in the field of cognitive development by providing evidence for the importance and role of confidence for student employability.

Overall, the contributions of this work are expected to be of value to both policy makers and individual HEIs, in so far as they create awareness of the challenges and implications of the changing HE environment in the England. The research provides recommendations on how to encompass challenges, such as the demand of enhanced employability amongst graduates, and offers practical guidelines to HEIs on how to support employability and confidence development in students.

1.6 Thesis Outline

This thesis is divided into seven chapters. The content of these chapters is briefly outlined below and illustrated in Figure 1.1.

Chapter 1 has presented the wider landscape motivating this research and briefly introduced the research topics. It highlighted the importance of understanding student expectations, the meaning of student employability to graduates and HEIs, and the significance of confidence development in the context of employability. The research questions, aims and objectives have been stated and an overview of the applied research approach to achieve these aims and objectives has been given. Further, the scope and contributions of the research have been explained and an outline for the remainder of the thesis has been provided.

Chapter 2 sets the scene for the subsequent chapters by providing detailed analysis in relation to the HE sector in England. Initially, the purpose of HE and the development of HE in England are described. The consumerism of HE is explained and the role of students as primary stakeholders, customers and partners is clarified. Then, the funding of HE in England is explained, introducing the various challenges arising owing to funding allocations and government regulations. Within this context, quality assessments in HE, student number controls and fee structures are discussed.

Chapter 3 describes the research approach, design and data collection techniques used to gather data in support of addressing the research questions. A theoretical overview of the interpretivist research paradigm is given. Then, the mixed methodology approach applied in order to collect qualitative and quantitative data within the three studies is discussed. Further, the institutional research site where the data collection took place is introduced and the three distinct phases of the research are presented. Finally, the limitations and ethical issues of the adopted approach are discussed.

Chapter 4 presents the first study, exploring commencing student expectations of their university experience and their correlations to influencing personal and situational variables. First, the chapter critically analyses existing literature in the field of quality in the HE context, student expectations and student satisfaction. The data collection techniques used for this specific study are discussed and the data from both iterations of data collection are presented. Then, the key findings are discussed, conclusions are drawn and recommendations are provided. Finally, the outcomes of this study provide the rationale for the subsequent study, with student employability identified as a key expectation of, and concern for, commencing students.

Chapter 5 explains the second study, focusing on an employability programme offered by the researched institution. The study explores the motivations and expectations of participating students before the programme and measures the outcomes and the satisfaction with the programme after its completion. Therefore, this chapter analyses relevant literature in the area of student employability, discusses the research tools used to meet the research aims and represents the data and findings. The conclusions drawn lead to the justification of the final study: confidence is a construct frequently mentioned by the participants during the pre-and post-programme evaluation and there is evidence to suggest that it should be explored in-depth.

Chapter 6 discusses the third study, exploring the concept of confidence from a student perspective. First, the literature in the field of confidence in general, confidence in relation to HE and employability, and confidence development is analysed. Then, the research tool and method of analysis are described and the data and findings are presented. The conclusions and recommendations are reviewed at the end of this chapter, suggesting various directions of how HEIs can support the enhancement of employability skills and development of confidence in students.

Chapter 7 discusses the overall findings in relation to the research questions. In this final chapter, the overall research effort is briefly summarised, the contributions made by the research are presented and conclusions drawn on the basis of the findings. Finally, the limitations of the research are discussed and areas for future research are suggested.

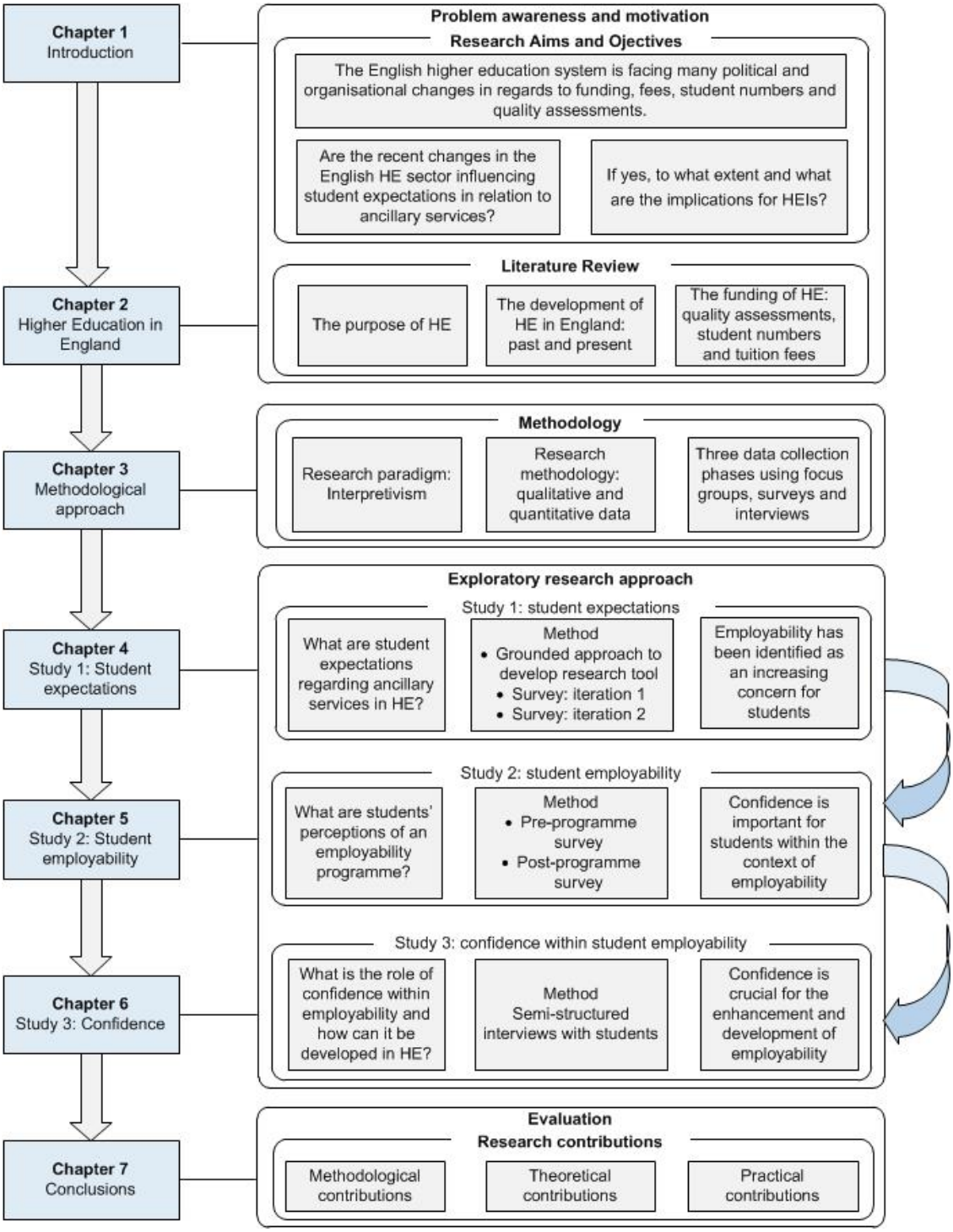

FIGURE 1.1: OVERVIEW OF THE THESIS STRUCTURE

CHAPTER 2:
The Context of English Higher Education

2.1 Introduction

The HE system in parts of the UK has been subject to, and continues to face, critical changes. This research was initially motivated by the new 'core-and-margin' model, introduced in 2012/13, regulating student numbers and funding allocations. The new model was also associated with the increase of Home/EU undergraduate tuition fees to up to £9,000 per year and the introduction of the student loan system. However, throughout the course of this research, the control on student numbers has first been expanded and then removed completely. Also, the National Scholarship Programme (NSP), encouraging widening participation by providing additional funding for universities supporting low-income students, has first been reduced and will be completely abolished in 2015/16. Additionally, the role of the Quality Assurance Agency (QAA), responsible for the monitoring and enhancement of quality standards in HE, is under threat as Hefce consults on changes to the quality assessment regime (Hefce, 2015). These and other changes show the unstable state and uncertain future of the HE sector in England and provide many opportunities for research and investigation.

Considering these changes and challenges, the primary aim of the research reported in this thesis is to investigate whether and how the recent changes in the HE sector in England are impacting student expectations and to explore some of the implications of the resulting challenges for both students and HEIs. For a better understanding of the context of this study, this chapter will discuss relevant background, highlight the current problems facing the HE sector, and will clarify the motivation for the research. The intention is to examine several critical areas of interest relevant to the overall research.

It is important to note that this chapter will only provide information about different aspects of the HE sector in England; other areas of literature will be discussed within each of the study chapters (Chapter 4 – 6). Hence, this chapter will first introduce the purpose and role of HE, in Section 2.2. Then the development of HE in England will be outlined in Section 2.3 in order to provide the basis for a deeper understanding of recent issues in the HE sector. Specifically, how HE developed from an elite to a mass-educational system will be explained, how far HEIs can be seen as businesses will be

explored, and the role of students as primary stakeholders, customers and partners will be clarified. Then, in Section 2.4, the funding of HE in England will be discussed, introducing the various challenges arising from funding allocation approaches and government regulations. Within this context, quality assessments in HE, student number controls and fee structures will be described. The chapter concludes with a brief summary (Section 2.5), highlighting the motivation for the research reported in the remainder of the thesis.

2.2 The Purpose of HE

In general, HE refers to the education provided by colleges, academies, institutes of technology and universities to students who successfully completed their secondary education (e.g., secondary school, high school or gymnasium). The aims of HE are to provide universal, liberal education, to stimulate research and scholarship, to improve the economy by providing new knowledge and to offer support to society in general by shaping and adding to the national knowledge and values (Gould, 2003). In line with this perspective, Cremin (1970) defines education in general as "the deliberate, systematic, and sustained effort to transmit or evoke knowledge, attitudes, values, skills, and sensibilities" (p. x).

However, Barnett (2004) argues that the original meaning of education does not stand; he criticises the fact that no exact definition of university education exists in current times and that frequently, but misleadingly, the term HE is equated with HEIs. With emerging (teaching) technologies, new strategies such as virtual universities, corporate universities and global university alliances, and changing demands, the purpose of HE has shifted, with the key focus now being economic outcomes for the individuals as well as society in general (Browne, 2010).

The Higher Education Funding Council of England (Hefce) (2009) explains that the main goals of education today are: to shape and develop personal potential concerning personal and professional capabilities (this will be discussed in more detail in Chapter 5); to progress knowledge and understanding through both teaching and research; and to add to economic success and national productivity. Key to this is the development and sharing of knowledge (often with the aim of economic benefit of some sort) in what is often termed the 'knowledge society' or 'knowledge economy', and which is influenced by various issues such as globalisation, competition and rapidly changing technologies.

In line with this perspective, Barnett (1993) relates knowledge, higher education and society in a triangle of interdependent forces, stressing the importance of knowledge and the role of HE to relay and to produce knowledge for the success and development of society (see Figure 2.1).

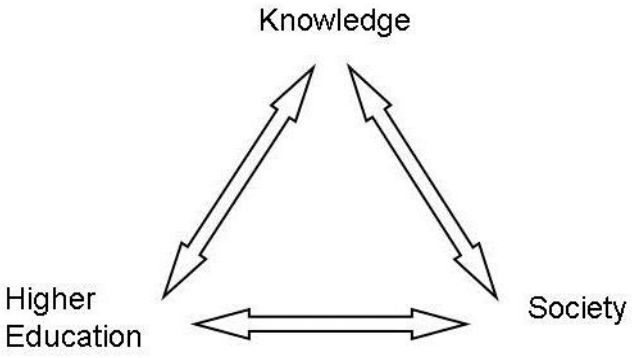

FIGURE 2.1: TRIANGULATION OF KNOWLEDGE, EDUCATION AND SOCIETY

In order to further facilitate the understanding of the current state of the HE sector in England, the following sub-section will briefly outline the development of HE from an elite to a mass-educational system and highlight the most important milestones during this time. It is important to understand the historical background in order to recognise how and why the current changes have been implemented and how they impact on students and HEIs.

2.3 The Development of HE in England

HE in England has a long history as its first established universities, like Oxford and Cambridge, have been functioning since the 12th and 13th centuries. Since their foundation, educational systems, as well as the power structure and influence of universities, have been subject to on-going changes in relation to social, religious, political and economic aspects. Owing to these changes, and the fact that HE is highly dependent on and related to the history and events of society, it is difficult to provide a coherent summary of the history and development of HE (Willmott, 2003; Stone, 1983), but a limited summary of the key developments and important milestones in the HE sector in England is given in Appendix A. The following sub-sections will describe HE's development from an elite to a mass-educational system in England, discuss the marketisation of HE and explore the roles of students within HE.

2.3.1 From an Elite to a Mass-educational System

Originally, universities were characterised by self-governance, their tutoring systems, the establishment of dormitories and boarding schools, as well as the high influence of the church and religious beliefs. University education was a reserve of the privileged, and participation rates were comparatively low.

While there were significant changes in universities between their establishment and the mid twentieth century, English universities remained relatively elite until the late part of the last century. This led, in the 1970s, to about 10 per cent of students continuing their education at universities, with the numbers rising to 15 per cent in 1987, increasing demand and leading to calls for higher flexibility from universities (Green, 1995).

Since the early 1980s, government policies have imposed many changes, aiming to increase student numbers while at times reducing overall unit funding. These changes have motivated the idea of converting HE from an elite to a mass education system, resulting in a shift to a system in which more individuals can serve industry and societal needs. The rising number of students led to the need for universities to expand rapidly or for new universities to develop.

One of the biggest changes occurred through the introduction of the Further and Higher Education Act 1992, terminating the ‘binary divide’ and giving polytechnics’ the same status as universities had at that time (Lee, 2005; Blanden and Machin, 2004; Green, 1995). The aim of this act was to respond to the increasing demand of students by doubling the number of institutions that could award degrees and compete for research funding (Willmott, 2003). As a result, there is the group of universities that stem from the former polytechnics that are now known as ‘post-92’ or ‘new’ universities, as well as the ‘second wave new universities’: university colleges and other HEIs that applied for university status a few years later.

Through these measures, university numbers have tripled since the 1960s and today there are close to 200 HEIs (universities and further education colleges (FEC) offering HE provision) in Britain (Universities UK, 2013). The changes imposed through the Further and Higher Education Act 1992, and the resulting decreasing influence and control of local authorities, paved the way for today’s business characteristics of the HE sector, where universities are competing like businesses for customers (students) and

revenue (funding, fees) (Chapleo, 2010; Benn and Chitty, 1996). This will be further discussed in the following sub-section.

2.3.2 The Marketisation of HE

Universities nowadays are often compared to, or seen as, businesses in so far as HEIs are managed and function like corporations in a (global) market context, are managed and marketed like businesses and are dependent on their stakeholders and customers (students) (Chapleo, 2010; Neary and Winn, 2009; Watson, 2009; Masschelein *et al*., 2007; O'Neill and Palmer, 2004; Gould, 2003; Williams, 2003; Willmott, 2003). Terms such as corporate universities and marketisation, commercialisation or corporatisation of HE have entered the HE lexicon and, with HEIs having such a significant influence on their environments, for example through investments in the local community and knowledge creation effecting national economies, they are often seen as members of the business world.

HE has economic value for graduates through the provision of improved life opportunities, for the economy in general through the development of high-level skills and innovation, and for society through the enhancement of knowledge based on research outputs. However, HE does not only enhance a country's economy through the provision of skills and knowledge; as corporate enterprises, HEIs also support the local economy through employment opportunities, the use of local infrastructures (accommodation, transport, restaurants and stores, etc.) and through overseas investment. As such, universities have a micro- and macro-economic effect on their environment and society.

Research undertaken by Universities UK (2014) measured in 2011/12 that the UK HE sector contributed 2.8 per cent to the national gross domestic product (GDP) and offered 757,268 full-time employment opportunities, equating to 2.7 per cent of all jobs in the UK. The HE sector generated £73.1 billion of economic output and it has further been calculated that the HE sector led to £10.7 billion of export earnings in the same year. Of this, £3.8 billion was from the fees and accommodation expenses associated with international students, and another £3.4 billion was from this group's off-campus expenditures on services and products (Universities UK, 2014). These numbers provide evidence for the business character of the HE sector in England and the importance of national and international students for the economic health of the country. Considering the economic benefits, encouraging the participation of national and international

students in English HE should, therefore, be of interest to the government, economy and society at large.

The shifts to a more market and business-oriented view of HE are also reflected in the use of quality management and other business strategies, marketing and public relations tactics, the increasing importance of accounting principles and cost effectiveness, and the fight for customers and the resulting focus on customer services. If universities are now seen as businesses or enterprises (Williams, 2003), it can be argued that students are becoming the customers of these HE corporations and consumers of the HE 'business'.

In order to understand the challenging position of students in the current state of HE, their role will be further explored in the following sub-section. An understanding of the role of students in today's English HE sector is particularly important as this thesis is motivated by the key argument that students nowadays have altered expectations in relation to their HE experience owing to increased tuition fees and related changes and challenges.

2.3.3 The Role of Students: Stakeholders, Customers and Partners of HEIs

With the publication of the Jarrett Report in 1985 by the Committee of Vice-Chancellors and Principals (CVCP), there was a shift to begin to view universities as enterprises, to label students as customers and to reinforce standardised quality assessments (Lysons *et al*., 1998). Further, owing to the Education Acts of 1988, which shifted power from the Local Education Authorities (LEA) to the government, and 1992, which eliminated the 'binary divide' between universities and polytechnics, the financial relationship between HEIs, the government and society changed greatly. The implementation of (at least aspects of) the proposals of the Browne Review in 2012 further commercialised the HE environment through the increase of the tuition fee cap to £9,000 for UK and EU undergraduate (UG) students.

In addition, the modern, global HE environment is characterised by new corporate and online universities, the creation of markets in HE and the development of global university alliances (Barnett, 2004). Thus, along with the diversification and marketisation of HE, the sector is facing challenges from an increasing notion of consumerism and a 'value for money' attitude from students (Morgan, 2012).

The concept of students as customers and universities as service providers has been widely discussed in the literature (e.g., Woodall *et al*., 2014; Acevedo, 2011; Gruber *et al*., 2010; Molesworth *et al*., 2009; Neary and Winn, 2009; Ramsden, 2008; Naidoo and Jamieson, 2005; Williams, 2003; Hill, 1995; Crawford, 1991) and is even more justifiable now after the introduction of higher, up-front tuition fees. In this context, it is argued that the consumer attitudes of students might have benefits for English HE, in so far as the increasing demands from students could increase the overall quality of HE and 'force' HEIs to quickly adapt to student demands, for example in relation to changes in the curriculum to provide professional skills development or alternative funding and quality systems (McCulloch, 2009; Ramsden, 2008; Naidoo and Jamieson, 2005).

However, the metaphor of students as customers has received some criticism (for an overview see, for example, McCulloch, 2009; McMillan and Cheney, 1996) and it has been argued that students should instead be seen as partners of HEIs (McCulloch, 2009). As such, this research adopts the perspective that students may better be seen as partners and co-producers in the teaching and learning aspects of HE, but may reasonably be seen as customers of the ancillary services offered by HEIs. Even this is arguable, though, as, while students are direct recipients and primary stakeholders of the services provided by HEIs, they act as partners since they are directly involved and interact in the delivery, choice and creation of service(s) (Gruber *et al*., 2010; Neary and Winn, 2009; Douglas *et al*., 2008, 2006). Even with the perspective outlined above, it can be argued that the marketisation of HE shifts the purpose and focus of HEIs from developing critical learners who seek to increase their understanding and knowledge, to satisfying consumers by delivering desired services and outcomes (i.e., a degree). Consequently, Molesworth *et al*. (2009) criticise the British government for "applying capitalist economic principles to HE, competition amongst producers to reduce costs and to 'improve' their offerings based on consumer demand" (p. 278).

Despite the challenges facing the HE sector, as noted in section 2.3.1 England has experienced an enormous increase in student numbers. While in the 1960s 400,000 students were overall enrolled in HE (this includes full-time and part-time UG and postgraduate (PG) students), the number had increased to about 2.5 million across all HEIs for the academic year 2011/12 (Universities UK, 2013); and the number of applicants is also steadily increasing. In 2011/12, the number of university applicants increased in comparison to the previous year, reaching an all-time record with almost

668,200 UK, EU and international applicants (UCAS, 2014). This increase in student applicants can most likely be explained by the government plan of increasing university fees from an average of £3,375 in 2011/12 to up to £9,000 in 2012/13.

In 2012/13 an expected decrease in student applications was observed due to the new funding and fee policies; applications from new UK/ EU full-time UG students fell by almost 50,000 (Bolton, 2012) and overall applications fell to 616,700. Since then, though, national and international applications have increased again, reaching 659,030 in 2014/15 (UCAS, 2014). Figure 2.2 shows the development of UK and EU full-time UG entrants from 2002/03 to 2013/14.

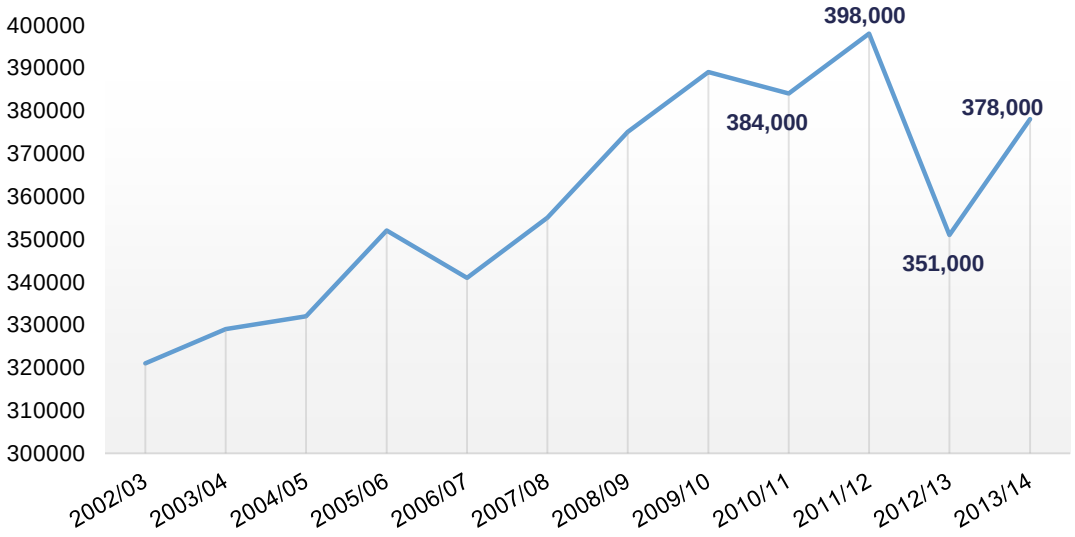

FIGURE 2.2: UK/EU FULL-TIME UG ENTRANTS (2002/03 – 2013/14) (HEFCE, 2014)

To summarise, along with previous Education Acts and the recent policy changes regarding fees, funding and student number control (further explained in the next sub-sections), the 'corporate university' leads to a new level of competition between HEIs, where universities and FECs are now competing for potential 'customers' from the desired A-level/tariff point segments. This leads to new funding challenges described in the next section.

2.4 Funding of HE in England

As a result of the Further and Higher Education Act 1992, the funding bodies for universities and polytechnics in England were unified through the formation of Hefce. With the increasing number of universities in England, old and new universities are now competing for limited resources from Hefce. Funding is allocated through different

modes: first, HEIs receive funding for research and performance; second, an initial grant is provided based on student numbers; and third, student fee income is received by HEIs. These three funding modes will be discussed in further detail in the following sub-sections.

Further, HEIs receive additional funding for research, including from the United Kingdom Research Councils (UKRC), the EU, the private sector and charities. This additional income positively stimulates research and leads to a distinction between teaching-led and research-led institutions, but also (positively and negatively) encourages competitiveness.

Figure 2.3 shows how the income of HEIs in the academic year 2012/13 was composed, identifying the different income streams. The two most important are income generated from tuition fees and grants from funding bodies: out of a total income of £29.1 billion, 40 per cent was derived from tuition fees and 24.1 per cent from government grants related to teaching and research.

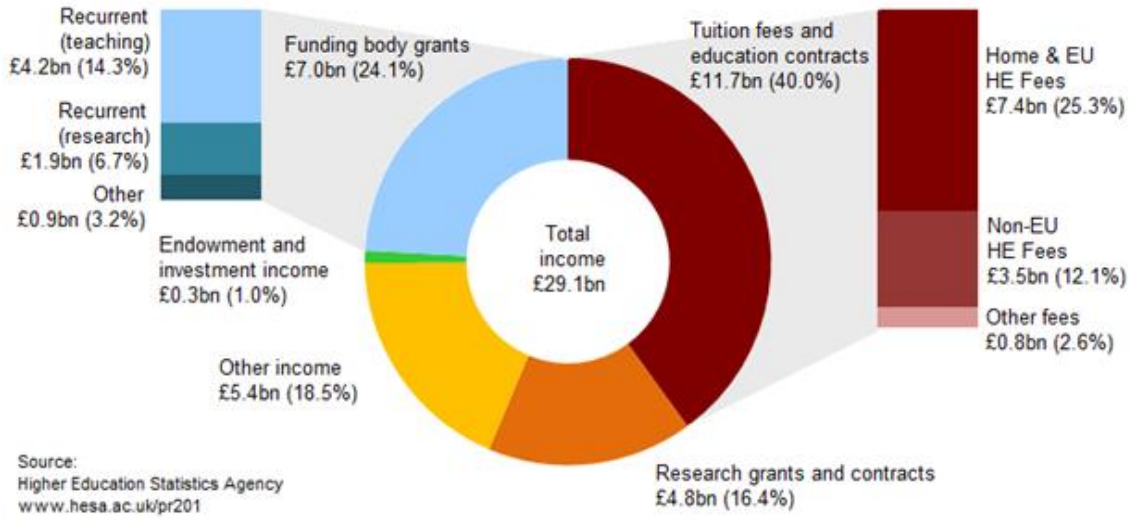

FIGURE 2.3: INCOME OF UK HEIS BY SOURCE 2012/13 (HESA, 2014)

2.4.1 Funding: Performance, Research, and Quality Assessments

The White Paper labelled "Students at the Heart of the System" (BIS, 2011) emphasises the responsibility of HEIs to deliver a quality experience to students, and funding agencies like Hefce stress the importance of supplying students with high quality services across all academic and non-academic areas (Morgan, 2012). Accordingly, HEIs in the UK are subject to vigorous quality evaluations and assessments concerning academic matters, research success and teaching quality, and the outcomes of these

assessments lead to the allocation and distribution of grants and university funding (Firdaus, 2006a; Lee, 2005).

In order to assess these outcomes, standardised assessments and controls have been introduced (Lee, 2005). One of the first quality assessments was undertaken by the University Grants Committee (UGC) in 1986. Subsequently, academic quality assessment was conducted by the Higher Education Quality Council (HEQC), established in 1992. The Dearing Report, published in 1997 by the National Committee of Inquiry into Higher Education (NCIHE), chaired by Lord Dearing, reviewed the dramatic impact on quality and performance due to the increasing competition between HEIs and offered the government recommendations in order to improve staff development, quality standards, governance and funding (NCIHE, 1997).

However, quality assessments in HE have been, and continue to be, highly criticised due to, amongst other factors, the lack of clear and uniform evaluation criteria, the high amount of bias during the assessment process and the shortage of effective feedback (Watson, 2009; Green, 1995; Lee, 2005). Critics further claim that the evaluation processes do not lead to significant results because they tend not to offer suggestions for improvement; they judge the universities' performance as opposed to actually examining and measuring it (Becket and Brookes, 2008; Green, 1995). Additionally, quality assessments are also criticised for their complicated, overlapping processes, contradicting conceptualisations of quality and a focus towards accountability (Lee, 2005). By tending to marginalise areas for improvement and by supporting a blame culture, mistrust and scepticism among academic staff towards quality monitoring has evolved. One result of this is that academics struggle to balance the quality requirements set by the government while improving the quality of the student experience.

However, as will be discussed in more detail in Chapter 4, providing high-quality services which improve the student experience should be one of the key objectives of HEIs. Meeting student expectations and improving the HE experience is important as student numbers are crucial for the financial sustainability of HEIs, and with the introduction of student satisfaction surveys, such as the National Student Survey (NSS) for UG students; and the Postgraduate Research Experience Survey (PRES) and Postgraduate Taught Experience Survey (PTES) for PG students, students can directly evaluate their HEIs. This data is then used by prospective students to make decisions

regarding their HEI choice. The impact of such surveys and the importance for HEIs to attain certain levels of student numbers will be explained in the following sub-section.

2.4.2 Funding and Student Numbers

To support students in their choice, information about HEIs is widely available from specialist websites (for example, www.thecompleteuniversityguide.co.uk; university.which.co.uk), in newspaper and magazine rankings (for example, The Sunday Times Good University Guide or the Guardian's University Guide), and through government datasets (such as those used for UNISTATS and KIS). These information resources draw on data from, amongst other sources, experience surveys (such as the NSS, PRES and PTES), the Destination of Leavers from Higher Education survey (DLHE), the Hefce, the Universities and Colleges Admissions Service (UCAS), and institutions themselves. Therefore, student experience surveys heavily impact on HEI rankings and these in turn influence student expectations, selection of potential HEI and, ultimately, applications; this, again, leads to recruitment of students and results in funding.

Hence, improving the quality in HE and enhancing the student experience is particularly important as HEIs receive funding through students in two ways: directly through student fees and indirectly through grants. These grants depend on various factors, such as the cost of teaching per student and on the number of national, EU and international student enrolments. This allocation of funds increases competition and favours mass education rather than quality (Jongbloed and Vossensteyn, 2001), because funding is based on enrolment rather than performance.

In this context, research has shown that student number-related funding has been, and continues to be, a highly discussed topic in the HE sector (e.g., Bolton, 2012; Browne, 2010; Gould, 2003; Greenaway and Haynes, 2003). While student numbers have doubled in the last few decades, funding has been halved, and the percentage of the overall GDP spent on UK HE education is far below the average spent in many other developed countries (Greenaway and Haynes, 2003; Jongbloed and Vossensteyn, 2001).

In 2012, there was a significant change to the approach to student number-related funding in England, with the previous contract-based funding scheme replaced by a new 'core-and margin' model. Hefce used to allocate HEI budgets before the academic year based on a formula considering the subject-related number of students, leading to a

resource that could not be under- or over-stated by more than five per cent (in 2012), and that hence limited and regulated (indirectly) the number of students and (directly) the total financial commitment of the government (Jongbloed and Vossensteyn, 2001). This so-called flexibility range was reduced to three per cent in 2013 and expanded to six per cent in 2014, meaning that HEIs could recruit six per cent over their allocation without facing a reduction in their grant (Dearden *et al*., 2014). If HEIs are over their students number controls (SNC) they are fined for each student exceeding the limit (Hefce, 2012). Additionally, each HEI received a fixed student fee for each enrolled student.

Under the core-and-margin plan, Hefce reduced the core grant of HEIs by 10 per cent, simultaneously prioritising high-cost subjects, such as medicine and science, as well as strategically important and vulnerable subjects (SIVS), such as chemistry, physics, engineering, mathematics, and modern foreign languages (Hefce, 2012). At the same time, a margin of 20,000 places was retained by Hefce and is now redistributed to 190 competing universities and FECs charging fees under £7,500 (Dearden *et al*., 2014).

Additionally, the new funding regime instituted a 'market' element based on academic achievement/quality where HEIs charging over £7,500 could accept an unrestricted number of students with AAB grades or higher qualifications (or equivalent) in 2012/2013; these students were not included in the SNC. This was subsequently extended as an approach – in 2013/2014 the restrictions were relaxed to include ABB or higher students, and SNC will be removed entirely in 2015/16. Recruiting a high number of students is crucial considering the reduction of government grants and the reliance on a continuing increase in income from student fees. This will be further discussed in the next sub-section.

2.4.3 Funding and Student Fees

Since government funding has been reduced, the new UG Home/EU tuition fee system has been introduced to shift the balance of funding to course fees, which can now be up to £9,000 a year, to be paid by students (supported by loans). Consequently, HEIs in England now rely highly and increasingly on fees paid by national/EU as well as international students.

Government restrictions strictly regulate the fees for UGs from the UK and the EU, but universities have flexibility in setting PG and international student fees. Tuition fees for

UK and EU UGs are regulated by law, for students who were enrolled in September 2012 or after, the fees have risen to a basic level of £6,000 and to a maximum of £9,000 (Hefce, 2012). To charge £9,000, HEIs have to meet strict criteria to ensure equal access for students from all backgrounds; this is controlled by the Office for Fair Access (OFFA). With the new policies, HEIs are currently charging an average fee of over £8,000, raising UK HE fees to the second-highest in the developed world and the highest in any public system (Bolton, 2012). Figure 2.4 clearly shows that the income received through UK/EU tuition fees has significantly increased with the introduction of the higher fee cap, while grants from funding councils have steadily decreased during the same period.

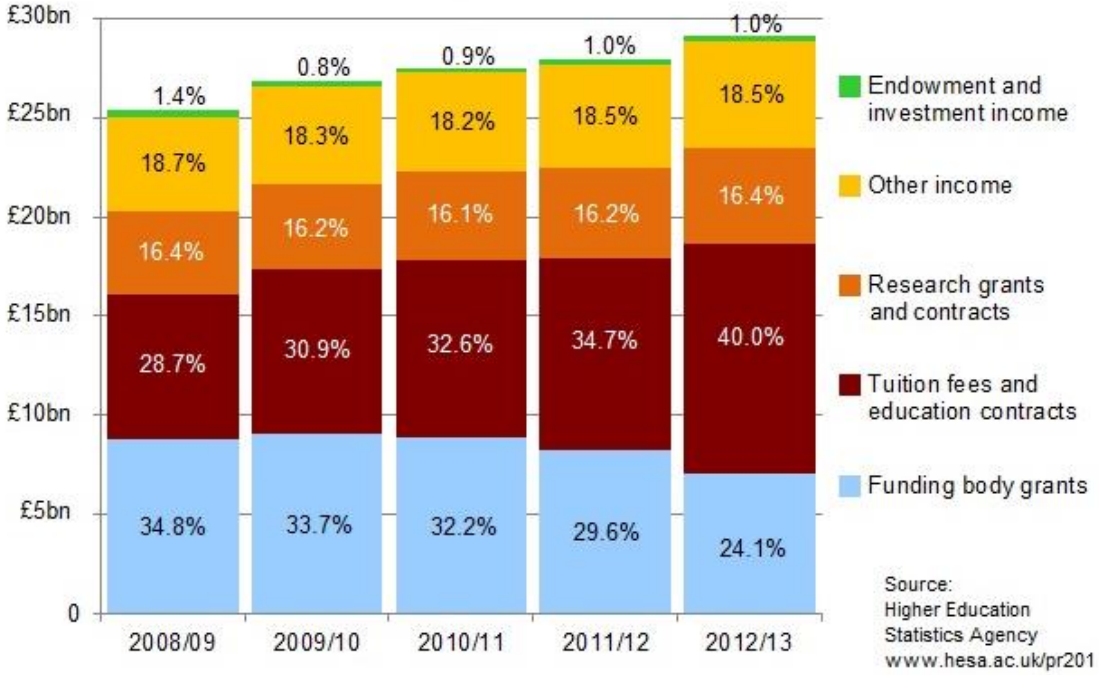

FIGURE 2.4: INCOME OF UK HEIS BY SOURCE 2008/09 TO 2012/13 (HESA, 2014)

The restrictions on student numbers (see Section 2.4.2) have mainly been introduced in order to avoid increasing national debt through the government provision of student loans. However, after the removal of SNC in 2015/16, universities will not be limited by the government in terms of recruitment numbers. This will result in new challenges, such as those related to funding/income in a less constrained recruitment 'market' and a possible drop in intake quality for some universities.

The new funding system for universities is already fairly complex and students, as well as the general public, are not well informed about the implications of the new government regulations. A main characteristic is that tuition fees are deferred and do not

have to be paid up-front; further, students can borrow some money from the government to cover their university expenses. There are different schemes available, the main ones being tuition fee loans, maintenance loans and maintenance grants. Tuition fee loans cover the full tuition fees for a full-time or part-time UG programme; maintenance loans are supposed to cover (or at least contribute to) full-time students' living costs. Maintenance loans are dependent on the income of a student's parents/guardians as well as a student's living situation (at home, away from home, outside London or inside London). Students have to repay the tuition fee and maintenance loans after graduation once they are earning over £21,000 per year. Nine per cent of their earnings will be deducted monthly by their employer, either for 30 years or until the loan has been completely repaid; after 30 years, any remaining balance will be written off. Interest has to be paid on the loans, with interest rates depending on an individual's annual income and possibly reaching the rate of inflation plus 3 per cent (Berry and Georghiou, 2011; Browne, 2010). The government also issues maintenance grants to students whose parental income is under £25,000 per year; these grants do not have to be repaid (though there are proposals to remove these grants and replace them with loans).

While this system improves the opportunity to attend university for students from low income backgrounds, many students are not sufficiently informed about the new funding regulations, the opportunities and the consequent responsibilities. One of these opportunities is the National Scholarship Programme (NSP), offered by the government to encourage low-income students (with an income of £25,000 per year or less) to enter HE. However, due to the financial challenges facing the government in relation to the HE sector, the Department for Business, Innovation and Skills (BIS) announced the cancellation of the NSP for UGs from 2015/16. Therefore, widening participation, meaning the inclusion of disadvantaged students, and the financial support of students in general is a growing issue (Chowdry *et al*., 2012).

The next section will briefly summarise the key points raised in this chapter and highlight the motivation for the research reported in the remainder of the thesis.

2.5 Chapter Summary

This chapter has provided the context necessary for understanding the problems and challenges occurring in the English HE sector, which is important as it provides the

motivation for the research. With the development of the HE system and the changes owing to factors such as globalisation, technical enhancements and the commercialisation of HE, the role of English HE has changed over the years and the economic contribution to society is often a key success factor for HEIs.

Reinforced by the introduction of £9,000 fees for UG students in England, students are becoming increasingly important for the financial sustainability of HEIs. At the same time, universities are competing for student numbers while under pressure to fulfil quality assessments related to teaching and research. With the business characteristics of the HE sector highlighted, students are now often seen as customers with high demands and changing expectations in regards to their HE experience. Therefore, due to fees directly paid by students and government funding allocations based on student numbers, it is crucial to understand the special role of students and to seek to ensure full satisfaction through the offering of high-quality teaching and learning, improvement of ancillary services and generally meeting students' expectations.

The on-going issues concerning HE funding and the quality of teaching and research would be well-served by developing long-term solutions, especially from the students' view. Students demand higher quality and better services for their tuition fees; at the same time universities are under pressure and have to face high levels of competition and the challenges of decreasing funding. Therefore, it can be argued that student satisfaction with the university experience, alongside high-quality teaching, should be one of the main goals of HEIs.

This research aims to further explore to what extent students expectations in relation to their university experience have changed after the introduction of the up to £9,000 tuition fees. The next chapter will discuss the methodological approach used to achieve the previously stated aims and objectives of the research.

CHAPTER 3: Research Approach

3.1 Introduction

The government has a vision for the future of HE in the England, which is to create a diverse, innovative, high-quality HE system which is more responsive to the needs and choices of students. However, in contrast stands the current state of HE, facing many critical points of concern, such as the lack of funding and finance, rising student fees and quality issues in teaching and research (see Chapter 2 for more detail). Additionally, there is the rising criticism that universities fail to show sufficient customer focus and do not provide satisfactory customer services to their students (Lee, 2005). Watson (2009) claims that HE has reached a crucial point where changes and improvements are urgently needed, but argues that HEIs display a "resistance to change [and cling to the] tradition of laissez faire and slack management" (p. 63). Particularly during critical times of increasing competition and declining funds, universities have to give importance to the improvement of the student experience through providing high-quality teaching and (customer) services (in order to compete for students and funding). In order to achieve this, HEIs have to develop an in-depth understanding of students' views and their expectations in relation to their HE experience. Consequently, these expectations have to be further explored. To do so, this research uses an exploratory approach with three different research phases and a mixed methodology to explore how the current changes in English HE system have impacted on student expectations and to identify the implications for HEIs.

This chapter describes the research approach and design used to achieve the research objectives and justifies the methodological choices made. The remainder of this chapter is structured as follows. Section 3.2 will outline the interpretivist research paradigm under which this study was conducted. Section 3.3 will explain the mixed methodology applied in order to collect qualitative and quantitative data. Section 3.4 will describe the research design adopted and Section 3.5 will introduce the research site where the data collection took place and outline the three distinct phases of the research. Finally, Section 3.6 will discuss the limitations and ethical issues of the adopted research approach and Section 3.7 will conclude the chapter by presenting a brief summary.

3.2 Research Paradigm

Research design can be thought of as a framework for data collection or the link between the collected data and the original research question, and has the function of classifying the chosen procedures and guaranteeing the quality of the collected data (Mertens, 2010). The research design is influenced by the researcher's chosen theoretical framework, also referred to as research philosophy or paradigm. Paradigms can be defined as "patterns of beliefs and practices that regulate inquiry within a discipline by providing lenses, frames and processes through which investigation is accomplished" (Weaver and Olson, 2006, p.460). Simply, the adopted paradigm guides the researcher's view of the world.

There are a number of theoretical paradigms discussed in the literature, such as positivist, post-positivist, realist, critical realist, constructivist, interpretivist, transformative, and pragmatic paradigm (for an overview see, for example, Lincoln *et al*., 2011; Mertens, 2010). The diverse and overlapping use of terminologies and definitions, as well as the frequently close relationship between different frameworks and views, has led to disputes amongst researchers (Lincoln *et al*., 2011).

Considering the various established paradigms, an interpretivist paradigm was seen as most appropriate for this research as it is an increasingly prominent view in social sciences, specifically in educational research (Schwartz-Shea and Yanow, 2012; Lincoln *et al*., 2011; Mertens, 2010; O'Donoghue, 2007; Vrasidas, 2001; Erickson, 1986). Furthermore, researchers supporting interpretivism have suggested that traditional approaches in educational research fail to acknowledge the significance of context, meaning and interpretation in relation to behaviour and actions (Lincoln *et al*., 2011; Vrasidas, 2001; Erickson, 1986).

The interpretivist paradigm developed from the philosophy of Edmund Husserl's phenomenology (the study of subjective experience) and other studies of interpretive understanding, termed hermeneutics and developed by Wilhelm Dilthey and other German philosophers in the second half of the 19th century (Mertens, 2010). Interpretivism, as the term implies, revolves around interpretations, emphasises the perspectives of and meanings for participants, and focuses on how these meanings are interpreted by the researcher (Erickson, 1986). Hence, interpretivists gain understanding though the interpretation of participants' perceptions.

In general, there are three components of a research paradigm: ontology; epistemology; and methodology. Ontology refers to how the researcher perceives reality – *What is reality?*; epistemology explains how knowledge is created from data – *How do you know?*; and methodology describes the different techniques which are used by the researcher – *How can you find out?*.

In terms of ontology, the interpretivist paradigm views reality as a "construct of the human mind" (Bassey, 1999, p. 42) and, therefore, suggests that "reality is socially constructed" (Cohen and Manion, 1994, p. 36). Under interpretivism, the researcher aims to recognise reality through understanding the views of participants in relation to a specific setting or situation (Schwartz-Shea and Yanow, 2012). In this research, this refers to the view of students regarding their English HE expectations with respect to recent changes in the HE sector. Emphasis is given to the individual's experience and perspectives. Therefore, interpretivism acknowledges that multiple realities exist, as each individual interprets a situation or the phenomenon under investigation differently, based on viewpoints and experiences. Further, in order to meaningfully interpret the collected data, the interptretivist researcher has to acknowledge the social context and culture in which the data is collected (Lincoln *et al*., 2011). In the present study the research is understood and investigated within the context of the changing HE environment in England.

Similarly, in terms of epistemology, the interpretivist researcher recognises the impact of his/her own experiences, knowledge and background on the research – this is of particular importance during the process of data collection, analysis and interpretation. Therefore, interpretivists adopt a subjective perspective and acknowledge that data and knowledge are interpreted by individuals. The interpretivist researcher aims to understand reality or the phenomenon under investigation through the interpretation of actions of, and meanings to, the participants while considering the context of that action or meaning. Thus, the role of the researcher under the interpretivist paradigm is ambivalent as the goal is to reduce the "distance" or "objective separateness" between the researcher and the participants during the data collection phases (Guba and Lincoln, 1988, p. 94), while trying to disengage for the phases of data analysis.

In terms of methodology, which is seen as the strategic approach or the principles of inquiry, rather than the data collection techniques and data analysis methods per se, interpretivist research is often characterised by qualitative methods. Furthermore,

Erickson (1986) uses the term interpretive as an umbrella-term for all qualitative research; however, he stresses the fact that interpretive research does not exclude quantitative research. Therefore, a mixed method approach is acceptable under the interpretivist paradigm (Schwartz-Shea and Yanow, 2012; Mertens, 2010; O'Donoghue, 2007; Cohen and Manion, 1994; Erickson, 1986). This will be explained in more detail in the following section.

3.3 Research Methodology

There are three key methodologies used in social science: qualitative; quantitative; and mixed methodology (for an overview of the strengths and weaknesses of each methodology see, for example, Creswell, 2014; Bryman and Bell, 2011; Mertens, 2010; Silverman, 2010). Based on scientific beliefs, educational research, and social science in general, traditionally applied primarily a quantitative methodology (i.e., used quantitative methods). However, with the development of alternative paradigms such as interpretivism and constructivism, there was a shift towards a qualitative approach to social research. With research approaches becoming more complex, yet flexible in their application of tools and methods, a mixed-methods approach has become more prominent (Creswell, 2014; Mertens, 2010).

The research methodology for this research has been carefully chosen for each phase of the data collection, considering the problem statement, the aim of the particular research phase and the desired information. As this research is of an exploratory nature and involves different research phases (explained in more detail in subsequent sections), a mixed methodology using qualitative and quantitative methods has been applied.

On the one hand, qualitative data often expresses attributes like personal opinions, attitudes or experiences and is usually presented in non-numerical terms. Therefore, qualitative research enables the exploration of a subject matter in a less constrained way and often focuses on the understanding of underlying meaning. Further, qualitative data leaves more room for interpretation; this is one of the main reasons why interpretivism is often dominated by a qualitative approach. However, in some instances qualitative data can be coded and expressed as numerical values in order to be analysed statistically. In this regard, it is important to understand when it is supportive to the research to quantify qualitative data (Erickson, 1986). Quantitative data, on the other hand, is always expressed in numerical terms and is seen to offer more objective results

(Bryman and Bell, 2011). Quantitative methods involve numerical representation and manipulation of observations for the purpose of describing, explaining, and testing hypotheses (Creswell, 2014).

Guided by the interpretivist paradigm, in this research the mixed method approach used focus groups, questionnaires and semi-structured interviews; this will be discussed in more detail in later sections of this chapter and within the sections presenting the methodology associated with each research phase, in Chapters 4, 5 and 6. A mixed method approach offers the researcher the opportunity to use different, and the most-suitable, methods to find answers to his/her research questions. Many researchers, including Creswell (2014), Bryman and Bell (2011), and Mertens (2010), now view qualitative and quantitative methods as complementary and stress the benefits of choosing the most appropriate method(s) for achieving the research objectives. This approach is of specific value when the aim of the research is to solve or understand a problem within a complex social or educational setting (Teddlie and Tashakkori, 2009).

Further, it is important to acknowledge at what point different methods are used; generally, mixed data collection can occur in a parallel (concurrent) or a sequential manner (Mertens, 2010). However, according to Vrasidas (2001), within interpretivism, the research approach and use of methods is not a fixed or sequential process; rather the applied approach and design are changing and developing throughout the research. As such, the research approach and design establish rough guidelines for the research process, but the process as such is "fluid" and develops throughout the study (Vrasidas, 2001, p. 11). This is based on the perception of interpretivist that there is no one single truth or reality and that the research cannot be predefined without neglecting some of those realities.

This research applies a combination of the sequential and fluid forms, where one type of data provides the basis for the collection of a different type of data. This has been used because of the exploratory approach of the research, in which the outcomes of one phase of data collection initiated the data collection of the next research phase, both in terms of the specific research questions of that phase and the chosen method. The next section will focus in more detail on the applied research design.

3.4 Research Design

As mentioned, the research design can be thought of as a framework for the data collection or the link between the collected data and the original research question. It has the function of classifying the chosen procedures and guaranteeing the quality of the collected data by following the guidelines associated with the chosen research design.

Following the interpretivist approach, the research is motivated by a certain problem facing a part of society (the changing English HE environment and the resulting challenges), rather than a theory. Nevertheless, authors such as O'Donoghue (2007) argue that interpretivism in itself can be seen as a type of grand, or big, theory. This research does not adopt this standpoint, as the exploratory nature of the research and the use of mixed methodology does not sufficiently support the use of interpretivism as a grand theory. Further, the research is not based on one specific theory and does not aim to support a set of pre-defined hypotheses; the research rather has its foundation in the observation of a phenomenon. Therefore, an inductive research approach has been adopted. An inductive research approach is characterised by the formulation of a theory or hypothesis after the observations have been made (Schwartz-Shea and Yanow, 2012; Bryman and Bell, 2011; Silverman, 2010; Cohen and Manion, 1985). This means that the data of interest are collected without the existence of a theory or a pre-defined hypothesis.

The literature analysis within each study (Chapter 4 – 6) will show the gaps in each area and explain why not enough is known about each phenomenon of concern. Additionally, policies and regulations in the HE sector are still expected to change over the coming years (and changed during the course of this study) and will affect various aspects of HE. Therefore, data were collected with the acknowledgement that there is an issue to investigate but the theory stems from the analysis of the collected data. This explains the use of an inductive approach and the utilisation of exploratory research in order to gather insights into the topic through the three different research phases.

It could be argued that the present study adopts a case study approach, if using Yin's description of a case study as "an empirical inquiry about a contemporary phenomenon (e.g., a "case"), set within its real-world context – especially when the boundaries between the phenomenon and context are not clearly evident" (Yin, 2009, p.18). Being able to examine and understand the whole case as a complex setting, case study research assumes that the case has to be analysed in its broader context with the aim to arrive to

as much data as possible. Case study research therefore does not examine variables in isolation but in their broader relationship, and is often the preferred method when the main focus of the research lies within a real-world context (Yin, 2009). The case study approach is often used when the main research question is of a descriptive (what?) or explanatory (how?) nature and is asked in relation to a contemporary set of events. Since the present study uses the changing HE environment as the wider context and Brunel University London as a single case, the three studies undertaken throughout the various phases of the research could be seen as embedded units of analysis. Nevertheless, the research has decided not to apply a case study approach owing to the theory-driven nature of this approach and the restrictions to exploration owing to the rather strict guidelines and protocols associated with case study research.

While case study research can be undertaken within exploratory research under the interpretivist paradigm, this study will avoid using the term case study and will instead use research phase, stage or study. As such, the three research phases can even be seen as types of policy study, which focus on the impact and consequences of government or organisational policies and investigates their implications and "street-level realities" (Altheide and Johnson, 2011, p. 583). Hence, using Torrance's (2008) guidelines for policy studies, the research has to include a description of the context of the study, the used methods and an explanation of how they might influence the data collection, a description of the background of the study site, and an explanation of the perspective or philosophy that guided the researcher. Each of these four aspects will be addressed throughout the thesis. As the first part of this, the following section will describe the background of the site where the research took place, namely Brunel University London, and briefly discuss the three distinct phases of data collection.

3.5 Study Site and Stages of Data Collection

This study is motivated by the changes and challenges affecting the HE sector in England and initially aimed to gather insight into whether and how the current state of HE is changing students' perspectives regarding their HE experience. To this end, the researcher used Brunel University London, (hereafter also simply referred to as Brunel or Brunel University) as the research site for all three phases of data collection. The researcher chose this university for the following reasons. First, choosing Brunel allowed easy access for the researcher and increased the approachability of participants. Second, Brunel is a well-established UK university, highly affected by the recent

government changes to HE in England and, therefore, highly dependent on student numbers and fees, as well as grants from funding bodies. Third, in the first research phase the research aims to focus on issues around ancillary services, rather than issues around teaching and learning – Brunel is a campus-based university located in Uxbridge at the periphery of London and, therefore, provides a wide array of services for both students living on- and off-campus. The location of the university away from the centre of the City of London, as well as outside of the centre of Uxbridge, increases the need for student services to be available on campus. Fourth, the second phase of the research centres on the topic of student employability. Brunel is renowned for encouraging students to undertake a placement as part of the degree and the university's Placement and Careers Centre (PCC) has won various awards for their outstanding services in this area. To further position the university within the UK HE landscape, the development and current state of the university is briefly outlined.

Brunel University London, named after the engineer Isambard Kingdom Brunel, became a university in 1966, following the Robbins Report (Robbins, 1963). It was originally founded in 1928 when Middlesex County Council's Junior Technical School was relocated to Chiswick. This institution was then known as Acton Technical College and had campuses across four different locations (Runnymede, Osterley, Twickenham and Uxbridge). In 1957, Brunel College of Technology split off to focus on teaching technology and related subjects. In 1962 it became Brunel College of Advanced Technology and shortly afterwards moved to its current Uxbridge site, becoming a university on 9 June, 1966, after the Privy Council granted it a Royal Charter and gave it university status. Uxbridge is now the only campus location, and the university has around 13,500 students from over 115 countries and around 2,500 academic and non-academic staff (Brunel, 2014). At the time of writing, fees for Home/EU students are £9,000 per academic year and international students are charged £12,500-£15,000 per year, depending on the chosen course.

Brunel's mission is to create knowledge and advance understanding, and equip versatile graduates with the confidence to apply what they have learnt for the benefit of society (Brunel, 2013). With a vision to be a world-class creative community that is inspired to work, think and learn together to meet the challenges of the future, Brunel has national and international recognition. In 2013/14, Brunel's income totalled £192.4 million, of which more than 50 per cent stemmed from tuition fees; total expenditures were £186.4

million, with 55 per cent being allocated to staff costs (see Figure 3.1 and Figure 3.2) (Brunel, 2014).

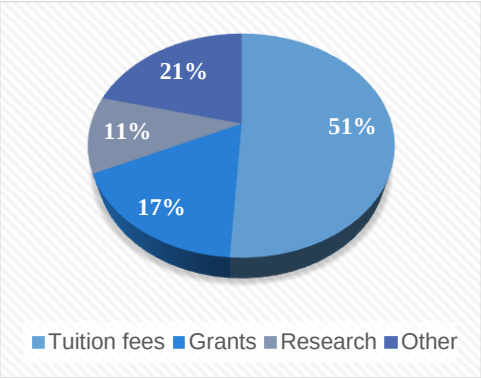

FIGURE 3.1: INCOME 2013/14 (£192.4M)

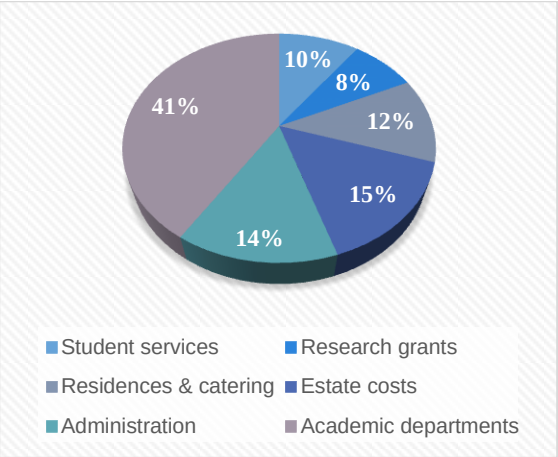

FIGURE 3.2: EXPENDITURE 2013/14 (£186.4M)

To show the impact of the HE policy changes for Brunel, Figure 3.3 shows that while the overall income of the university has increased over the years from £157.8 million in 2008/09 to £192.4 million in 2013/14, the income from tuition fees has significantly increased and income from funding bodies has decreased during the same time period. Specifically, in 2011/12 the total income from tuition fees was £70 million, in comparison to £98 million in 2013/14. Accordingly, grants from funding bodies have decreased from £51.4 million in 2011/12 to £31.9 million in 2013/14. Therefore, Brunel can be seen to have been highly affected by the changes in government policies and regulations.

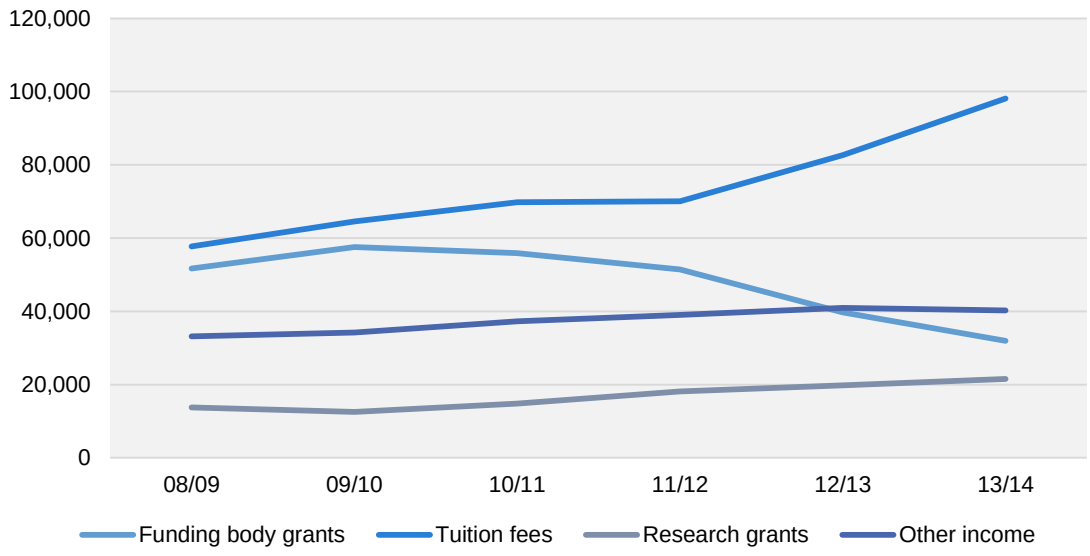

FIGURE 3.3: BRUNEL UNIVERSITY INCOME 2008/09 – 2013/14

As previously mentioned, the research is divided into three distinct phases with each phase focusing on different yet related issues in HE and collecting data to answer different research questions. Each study is presented in a self-contained chapter (Chapters 4 – 6) and will be structured as an individual piece of work consisting of a literature review section, methodology section, and results, analysis and discussion section. Table 3.1 shows an overview of the overall research design, but the specific methods or tools for each research phase will be discussed in detail in the corresponding chapters. In addition to the collection of primary data throughout the three research phases, and the application of various research tools (focus group, questionnaires and interviews), secondary data were collected from books, academic journals and government publications.

With respect to the analysis of data, in interpretivist research the tasks of data collection and analysis are carried out in tandem (Cohen and Manion, 1985). This process encouraged the applied research design in which the analysis and outcomes of one research phase motivated the next research phase.

1. Research Phase **Study 1: Student expectations**				
Research questions	Are the recent changes in the English HE sector influencing student expectations in relation to ancillary services? If yes, to what extent and what are the implications for HEIs? Which factors are influencing students' initial concerns and expectations of ancillary services before they have actually experienced the HEI services?			
Method	**Justification**	**Timeline**	**Sample size (N)**	**Method of analysis**
Focus group	Focus groups are frequently used as initial method for the development of a data collection tool (Munteanu *et al*., 2010; Clemes *et al*., 2008; Firdaus, 2006 b; Richardson, 2005; Oldfield and Baron, 2000; Aldridge and Rowley, 1998).	June/July 2012	N = 2 x 7	Qualitative data analysis (Benbunan-Fich, 2001)
Questionnaire	In exploratory research qualitative data collection is often followed by quantitative data collection to explore a phenomenon (Cresswell, 2014).	Iteration 1: September 2012 Iteration 2: September 2013	Iteration 1: N = 272 Iteration 2: N = 268	Statistical analysis with SPSS
2. Research Phase **Study 2: Student employability**				
Research question(s)	What are the motives and motivations of students to participate in a non-credit bearing employability programme? What are the expectations of students regarding such a programme? To what extent has the employability programme met the participants' expectations and satisfied their individual needs? and Based on a student perspective, how could such an employability programme be optimised?			
Method	**Justification**	**Timeline**	**Sample size (N)**	**Method of analysis**
Pre- and post programme pilot study	In order to avoid hindsight bias, motivations and perceptions are measured before the programme (Appleton-Knapp and Krentler, 2006)	September 2013	N = 20 (excluded from analysis)	Statistical analysis with SPSS; qualitative data analysis through coding of utterances based on Benbunan-Fich (2001)
Pre-programme questionnaire		September 2013	N = 136	
Post-programme questionnaire		December 2013	N = 92	
3. Research Phase **Study 3: Confidence development in students**				
Research question(s)	What are student perceptions and understandings of the concepts of employability and confidence? What is the role of confidence in relation to student employability and skills development? and How can HEIs support and enhance employability skills and confidence development in students?			
Method	**Justification**	**Timeline**	**Sample size (N)**	**Method of analysis**
Semi-structured interviews	In order to explain a phenomenon, qualitative data are collected after quantitative data to try to explain the quantitative results (Cresswell, 2014).	Pilot study: October 2014 Main study: November - December 2014	N = 2 (included in analysis) N = 20	Thematic analysis (Braun and Clarke, 2006; Boyatzis, 1998; Miles and Huberman, 1994); Conversion design

TABLE 3.1: RESEARCH DESIGN AND RESEARCH PHASES

3.6 Research Limitations and Ethical Considerations

All research designs and methods have limitations and disadvantages. These do not necessarily lead to invalid results but it is important that they are understood and can be used to stimulate further research. While the limitations of each research phase will be discussed in the corresponding chapter, the overall research approach and design has some limitations, which are discussed in this section.

Usually, researchers apply the concepts of objectivity, reliability and (internal and external) validity to maximise and evaluate the quality of their research (Creswell, 2014; Bryman and Bell, 2011; Silverman, 2010; Mertens, 2010). Validity ensures that the research design, collection methods and the resulting data are measuring what they are supposed to measure and that they answer the researcher's question. It also refers to whether findings can be applied to other populations and, hence, directly relates to generalisability. Reliability refers to the extent to which repetition of the research by another researcher with similar methods and the same objectives leads to similar data and observations. However, interpretivists assess quality in terms of trustworthiness.

Trustworthiness relates to four concepts: credibility, transferability, dependability and confirmability (Altheide and Johnson, 2011; Vrasidas, 2001; Erickson, 1986; Lincoln and Guba, 1985). Credibility refers to the confidence in the 'truth' of the findings and in how far the findings are a true interpretation of the participants' views; transferability shows that the findings can be applied in other contexts; dependability measures the quality of the processes within data collection and analysis and indicates that the findings are consistent and could be repeated; and confirmability describes the degree of neutrality, meaning the extent to which the findings are the result of participants' views and the data collected, rather than researcher bias, motivation or interest (Lincoln and Guba, 1985).

While in quantitative research objectivity is essential, qualitative interpretivist research depends on the subjectivity of the researcher for the interpretation of the data. Erickson (1986) and Lincoln *et al*. (2011) even argue that there is no real issue of validity in interpretivist research and that all data can be seen as valid, because what has meaning for one person might not have meaning for another. Therefore, they argue that invalidity of data or method does not exist as long as the participants' view of reality and meaning has been captured and represented correctly. Similarly, Altheide and Johnson (2011)

and Vrasidas (2001) suggest that validity in interpretivism does not relate to the validity of the study, but rather the validity of interpretations and claims and, hence, should be evaluated in terms of coherence, reasonableness, and whether the research helps to understand the phenomenon under investigation. Consequently, the researcher aims to be as objective as possible during the process of data collection and to maintain the protocols and procedures of the different methods, but acknowledges a certain level of subjectivity in the data analysis phases.

In order to increase the credibility of the research, triangulation can be used (Guba and Lincoln, 1988). Triangulation is the process of using more than one mode of investigation to answer a research question. This has been applied throughout the research through the use of multiple methods. Transferability refers to the generalisability of the research. While generalisability is not a key goal of interpretivist research, transferability can be improved through 'thick description'. This refers to the depth of the description of the context, data collection and analysis processes (Vrasidas, 2001). Dependability is closely related to transferability and can be ensured through the detailed description of methods used and the correct use of the applied methods, as suggested in the literature. Confirmability can be supported by providing accurate descriptions and interpretations of participants' views and through the inclusion of direct excerpts from participants' answers (Lincoln and Guba, 1985).

One key limitation of this study, which has to be acknowledged, lies in the implementation of the research in only one single research site. This issue emerged owing to time and resource restrictions. Nevertheless, the inclusion of alternative sites, while undoubtedly of value, would not significantly have increased the generalisability or reliability of data as interpretivist research in most cases is not focusing on generalisability but, rather, on exploration and explanation.

This also applied to researcher bias. As suggested, the interpretivist researcher aims to understand reality or the phenomenon under investigation through the interpretation of participants' views. As interpretation is always subjective, and it can be argued that bias-free research does not exist (Gummesson, 2003), a certain expected level of bias in the researcher's actions and interpretations can be expected. To reduce this, mixed methods have been used.

Ethical issues concerning the security, privacy and anonymity of data have to be addressed when conducting research with individuals. Ethical approval was sought and granted by the university's Research Ethics Committee prior to the implementation of each study (Appendix B.1 – B.3). An important issue to consider is the protection of anonymity of participants and the appropriate handling of the collected data. All students participated in the various studies on a voluntary and anonymous basis; they were fully informed about the research aims and procedures and had to sign a consent agreement. No individual data or any content that could identify an individual has been published, either in this thesis or in related publications.

The actual storing of the collected data is an important issue owing to the high volume of printed questionnaires from the different phases of the data collection, as well as of electronic recordings. All recordings were saved electronically on a computer and were then transcribed. Owing to the risks of data loss, electronic copies of the recordings and transcriptions were stored on a work computer, private laptop and a portable storage device. To ensure confidentiality and anonymity, all devices were password protected and no other person had access to the data. The paper-based questionnaires were manually transferred to SPSS; again, the electronic data were stored in the same three locations as the interview transcriptions, while the hard copies were clearly labelled, referenced and filed securely together with other documents and notes for each participant.

3.7 Chapter Summary

This chapter has described the overall research approach applied to achieve the research objectives and to justify the methodological choices made. Further, it has explained how the research was designed under the interpretivist paradigm, utilising a mixed research methodology making use of qualitative and quantitative methods. Brunel University London was introduced as the single study site. This particular university was seen as an appropriate site for the data collection as it has been fundamentally influenced by the recent changes in the UK HE sector. Further, the three phases of the research have been outlined. The chapter concluded with the acknowledgment of the limitations of the study in terms of the assessment of research legitimacy, as well as the ethical issues encountered. Chapters 4-6 will represent the studies undertaken within the three research phases.

CHAPTER 4:
Study 1: Expectations of Ancillary Services in HE – A Study of Commencing Students

4.1 Introduction

As discussed, this PhD was motivated by the recent developments in aspects of English HE policy – including changes to regulations and controls around funding, fees and student numbers (Grebennikov and Shah, 2012; Brown, 2011; Browne, 2010) – and the ways in which they may be affecting HEIs and their students. The introduction of up to £9,000 annual UG tuition fees in England has had an impact on student perceptions, their decision-making behaviour and their expectations in relation to HE. It has also led to changed and increased expectations regarding the university experience for students' parents and guardians, employers, and society more generally (Woodall *et al.*, 2014; Wilkins *et al*., 2013; Grebennikov and Shah, 2012; Gruber *et al*., 2010; Munteanu *et al.*, 2010). This study argues that increased fees alter student expectations, creating pressure for HEIs to understand and manage those expectations efficiently and effectively, and making it important to consider the issues and challenges that the policy changes create for HEIs and students. Consequently, it has become important for those within the sector to understand how students now select potential HEIs and to be aware of students' expectations regarding all aspects of the university experience.

Concentrating on delivering high-quality teaching, learning and ancillary services is obviously crucial to an HEI's performance (Brown, 2011), and much has been written about enhancing learning and teaching (e.g., Fink, 2013; Biggs and Tang, 2011; Haggis, 2009; Biggs, 2001; Schön, 1987). There is, though, less research around ancillary services and their impact on the student experience, despite a recognition that it is now vital for HEIs to deliver high-quality services if they are to be successful in the recruitment and retention of students (Grebennikov and Shah, 2012; Morgan, 2012; Brown, 2011; Voss *et al*., 2007; Appleton-Knapp and Krentler, 2006; Firdaus, 2006b; Richardson, 2005). In order to deliver such services to meet the needs of students, it is essential to understand students' expectations of them. These expectations vary within the cohort, so understanding the influencing variables and how this influence is exerted, is an important first step (Felder and Brent, 2005).

Concentrating on commencing students, as they join a university, is important in order to identify and manage expectations and seek to ensure quality and satisfaction. It is particularly important to understand commencing UG students entering the English HE environment since the academic year 2012/13, as these are the first cohorts experiencing the changes in the funding regime, and deciding on alternative funding options, such as the new-style student loan. Since the overarching goal in this area should be the design and delivery of quality services which meet student expectations and lead to high levels of satisfaction, the aim of study 1 is to understand the factors which influence students' expectations of ancillary services and to identify the areas about which students are most concerned.

To achieve this aim, this chapter is structured as follows. First, theoretical background will be provided in Section 4.2 through an analysis of relevant research in the areas of quality, expectations and satisfaction, as they have been shown to influence how students perceive and judge their university experience. Then, the aim of the study will be clarified in Section 4.3 before the method section (Section 4.4.) considers the tools and techniques that are applied in their measurement. The discussion of method will lead to the identification of questionnaires as a suitable instrument type for the data collection in this study, the presentation of the questionnaire that was used (designed through a grounded approach in combination with established surveys (Firdaus, 2006a, b; Parasuraman *et al*., 1985, 1988), and a justification of the sample of participants who took part. Section 4.5 will present the data gathered in the first iteration of data collection and identify the sample's expectations in relation to differentiating factors, discussing the key concerns of these commencing students and analysing individual differences within the overall cohort. In Section 4.6, the findings will be discussed and recommendations provided. Following the same pattern, Section 4.7 will explain the revised questionnaire used in iteration 2; Section 4.8 will present data gathered in the second iteration of data collection; and Section 4.9 will present recommendations based on the discussion of the associated findings. Then, in Section 4.10, conclusions from the study as a whole will be drawn, contributions will be highlighted and suggestions made with respect to how HEIs can use the understanding of individual student differences to manage expectations and to design targeted, high-quality ancillary services. Finally, the chapter will conclude with a brief summary in Section 4.11.

4.2 Understanding Quality, Student Expectations and Satisfaction in HE

In light of the recent changes in the English HE sector, some of the key purposes of HEIs – apart from the obvious role of teaching and educating – should be to offer high-quality services, to meet student expectations and to achieve student satisfaction. However, the constructs of quality, expectation and satisfaction within HE are complex and research in this area provides a range of perspectives in relation to them. This is mainly because these constructs are interrelated and dependent on many additional factors. The main literature and theories on service quality, customer expectation and satisfaction stem from the 1980s and 1990s (for example: Hill, 1995; Cronin and Taylor, 1992; Zeithaml *et al*., 1990; Parasuraman *et al*., 1988, 1985; Grönroos, 1984; Oliver, 1981, 1980) and current, related research in the field of HE draws heavily on these authors (for example: Douglas *et al*., 2015, 2008, 2006; Grebennikov and Shah, 2012; Gruber *et al*., 2010; Munteanu *et al*., 2010; Clemes *et al*., 2008; Clewes, 2003; Oldfield and Baron, 2000). To inform the research study reported in this chapter, the following sub-sections will explain the theory behind the concepts of quality, expectations and satisfaction within HE and clarify the interrelationships between these constructs.

4.2.1 Quality in the HE Context

Quality in HE has a very important role as it influences student satisfaction, university rankings and students' choices and, hence, impacts on a university's financial health and sustainability (Becket and Brookes, 2008; Dill and Soo, 2005). Quality in this context mainly refers to service quality, as HE is often classified as a service (Gruber *et al*., 2010; Munteanu *et al*., 2010; Clewes, 2003). However, there is no standard definition of service quality, because it can be seen as a form of attitude, liable to personal perceptions, interpretations and evaluations (Clemes *et al*., 2008; Douglas *et al*., 2008; Clewes, 2003; Spreng and Machoy, 1996; Harvey and Green, 1993)[1]. Further, quality in the HE context cannot meaningfully be discussed in isolation as there are close relationships and interdependencies between quality and other concepts, such as satisfaction, expectation and perception (Munteanu *et al*., 2010; O'Neill and Palmer, 2004).

[1] A more detailed overview of different definitions and perceptions of quality in HE is provided, for example, by Harvey and Williams (2010) and Harvey and Green (1993).

Using Hill's (1995) understanding of quality, the interrelationship of the concepts can be clarified, though: if expectations are met or exceeded, the customer perceives the quality as satisfying and is satisfied; unmet expectations generally lead to bad quality evaluations and dissatisfied customers. This perspective is known as gap-theory and conceptualises service quality as perception minus expectation (SQ = P – E) (Spreng and Mackoy, 1996; Hill, 1995; Parasuraman *et al*., 1985). Hill's equation, and conceptualisation of service quality, suggests that it is important to understand the concept of expectation in the context of HE in order to increase the perceived quality and to 'deliver' satisfaction.

However, there is a similar lack of clarity and agreement in the literature concerning these related concepts. For example, some authors claim that satisfaction is an antecedent of quality (Bitner, 1990; Parasuraman *et al*., 1985), while others argue that service quality naturally leads to customer satisfaction (see Lee *et al*., 2000 or Clewes *et al*., 2008 for an overview; Cronin and Taylor, 1992); at the same time, it has been argued that satisfaction depends on expectations, while expectations also influence perceived quality (Hill, 1995; Bitner, 1990; Zeithaml *et al*., 1990).

The relationship between the concepts can be more closely explained through the confirmation-disconfirmation paradigm (Bitner, 1990), which has been frequently used in the HE context. It seeks to explore the relationship between a student's pre-consumption expectations and the perceptions of the actual service performance and suggests that service quality can be conceptualised as the difference between expectations and actual perceptions (O'Neill and Palmer, 2004). Despite different views, it is clear that service quality in the HE context is the result of various service experiences (e.g., administrative, academic, library, etc.), whereas overall quality is determined by the 'customer's' personal comparison of the actual experienced service to prior expectations (Gruber *et al*., 2010; Munteanu *et al*., 2010; Spreng and Mackoy, 1996). As such, an understanding of the relationship between quality, expectations and satisfaction is of great importance in HE because students may experience a wide range of services on a daily basis.

As noted, it is crucial not only to consider quality related to teaching and learning, but also to reflect on the overall university experience and student satisfaction in relation to ancillary services, such as library and research facilities, placement and careers services, and health services (Morgan, 2012; Munteanu *et al*., 2010). Yet, current research

suggests a gap with respect to the measurement and evaluation of quality, expectations and satisfaction in relation to such ancillary services provided by HEIs (Grebennikov and Shah, 2012; Morgan, 2012; Brown, 2011; Voss *et al*., 2007; Firdaus, 2006b; Richardson, 2005). This study will therefore focus on student expectations in relation to ancillary services. To develop a deeper understanding of the underlying concepts, section 4.2.2 will discuss the notion of expectations and its interrelationship to quality and satisfaction.

4.2.2 Student Expectations

To be able to develop satisfying high-quality services, HEIs have to understand student expectations and use this knowledge to manage those expectations effectively through targeted communication and the design of processes and services.

While 'expectation' as a construct is not defined consistently in the literature, it is agreed that every individual will face a service encounter with some type of expectation, based on prior information, previous experiences, personal attitudes, needs, and price (Hill, 1995; Zeithaml *et al*., 1990). Also, there are many theories – congruent and conflicting – and models regarding expectations, their evaluation, and interrelated concepts (for an overview see Yi, 1990).

Of these, expectancy-disconfirmation theory (EDP) (Oliver, 1980) has become one of the most frequently cited in the measurement of expectations and related satisfaction/dissatisfaction and behaviour. EDP indicates that customers purchase a product or service with a certain expectation about the outcome or performance. This level of expectation will then be used as a benchmark to measure the resulting satisfaction with the product or service (Yüksel and Yüksel, 2001). In summary, once the product or service has been purchased or experienced, the satisfaction is measured against the preceding expectations. As a result, there are three possible outcomes for the evaluation of satisfaction: congruence or confirmation, if the outcome equals the expectations; positive incongruence or disconfirmation, if the expectations are exceeded; and negative incongruence or disconfirmation, if the outcome is below the expectations (Oliver, 1980). EDP can be used to understand the relationship and interdependence between students' expectations and satisfaction (Appleton-Knapp and Krentler, 2006).

However, although there is research evidence for the relationship between expectations and satisfaction, and there is significant research identifying the influences on student satisfaction associated with educational experience, there is a lack of analysis of the role of student expectations on satisfaction and perceived HE quality (Brown, 2011; Voss *et al*., 2007; Appleton-Knapp and Krentler, 2006).

Most measurements and evaluations of student satisfaction take place at the end of a course or study year and focus primarily on teaching and learning experiences, rather than ancillary services. This indicates that if expectations are taken into consideration, they tend to be focused on academic experience and measured post-hoc, with students required to remember their prior expectations to make accurate judgements. Theories of hindsight, however, indicate that there is usually a bias in expectation recall (Hawkins and Hastie, 1990). In the HE context, it would therefore be useful to close the research gap and to gather information on student expectations of ancillary services before or at the beginning of their university experience in order to effectively evaluate the perceived quality and related satisfaction. It is further necessary to understand the factors that influence and shape students' pre-experience expectations, as student expectations can be seen as a unique source of information that can be used to manage expectations of future students.

4.2.3 Student Satisfaction

Having discussed the concepts of quality and expectations in the HE context, the remainder of this section will focus on the concept of satisfaction. Student satisfaction is an important construct and should be one of the key goals of HEIs for a number of related reasons: first, satisfaction can lead to loyalty and students might continue their education within the same HEI or recommend it to others; second, satisfaction impacts how students rank universities through student experience surveys, and rankings often influence student recruitment and retention rates; and third, rankings and recruitment rates eventually impact on finances through fees and funding.

Since satisfaction is directly related to expectations, Ramsden (2008) suggests that it is vital to efficiently manage student expectations and to prepare students for their university experience. To give students' views greater prominence and to measure satisfaction, various student experience surveys have been introduced in the UK, including the National Student Survey (NSS), the Postgraduate Research Experience Survey (PRES) and the Postgraduate Taught Experience Survey (PTES). These surveys

have been criticised for a number of reasons (Douglas *et al*., 2008; Harvey, 2003), but despite the criticisms, satisfaction surveys are still the most commonly used tools for the measurement and evaluation of student satisfaction. However, most existing questionnaires aim to measure student satisfaction with their study programme, rather than their satisfaction with ancillary services (Grebennikov and Shah, 2012; Brown, 2011; Munteanu *et al*., 2010; Douglas *et al*., 2008; Richardson, 2005). Other methodologies for obtaining student feedback have also been criticised (Brown, 2011; Yorke, 2009) and it has been noted there is no focus on, or a standardised survey about, the ancillary services offered by universities (Grebennikov and Shah, 2012; Brown, 2011).

Additionally, satisfaction is a concept directly linked to expectations, and the measurement of student expectations, specifically of commencing students, is a widely neglected topic. Nevertheless, measuring student satisfaction is important to enable the design of a university experience based on an understanding of student needs and expectations. It can be argued that it is crucial to manage expectations of students effectively in order to increase their satisfaction. Thus, it is important to provide students with more information about what to expect, not only to direct university choice, but also to prepare students for the new experience and to ensure that their expectations match the experiences and lead to satisfaction (Ramsden, 2008; Voss *et al*., 2007). Consequently, HEIs can only deliver appropriate and satisfying services if they understand students' needs at a detailed level. Recognising how students perceive current services will help HEIs to improve the services offered, to adapt to students' concerns and expectations and to positively influence student satisfaction. As such, HEIs have to understand the demographic and other factors that influence student perceptions at an individual and cohort level.

Research suggests that issues, such as personal factors, situational factors, institutional or external factors, and price have not been examined in detail even though research indicates that increases in fees could lead to lower student satisfaction (Gruber *et al*., 2010; Rust and Oliver, 1994). Considering and understanding a range of these factors can support the informed development of a satisfying student experience. Therefore, the research reported in this chapter views student concerns and expectations in connection to some of these influencing factors, such as age, status, type of accommodation and

funding method, in order to add to the understanding of individual differences within student cohorts.

4.3 Study Aim and Objectives

Based on the literature, this study reasons that increased fees could alter student expectations (Woodall *et al.*, 2014; Wilkins *et al*., 2013; Gruber *et al*., 2010), creating pressure for HEIs to understand and manage those expectations efficiently and effectively, and making it important to consider the issues and challenges that the policy changes create for institutions and students. Further, expectations vary within the cohort, so understanding which demographic and other individual characteristics influence student expectations, and how this influence is exerted, is a crucial first step.

Therefore, this study aims to explore if, and to what extent, demographic and other individual characteristics impact on expectations. As suggested by Gruber *et al*. (2010), various factors can influence satisfaction and expectations (see Figure 4.1). However, the impact of some of these factors, such as personal factors, price and situational factors, have not been sufficiently explored.

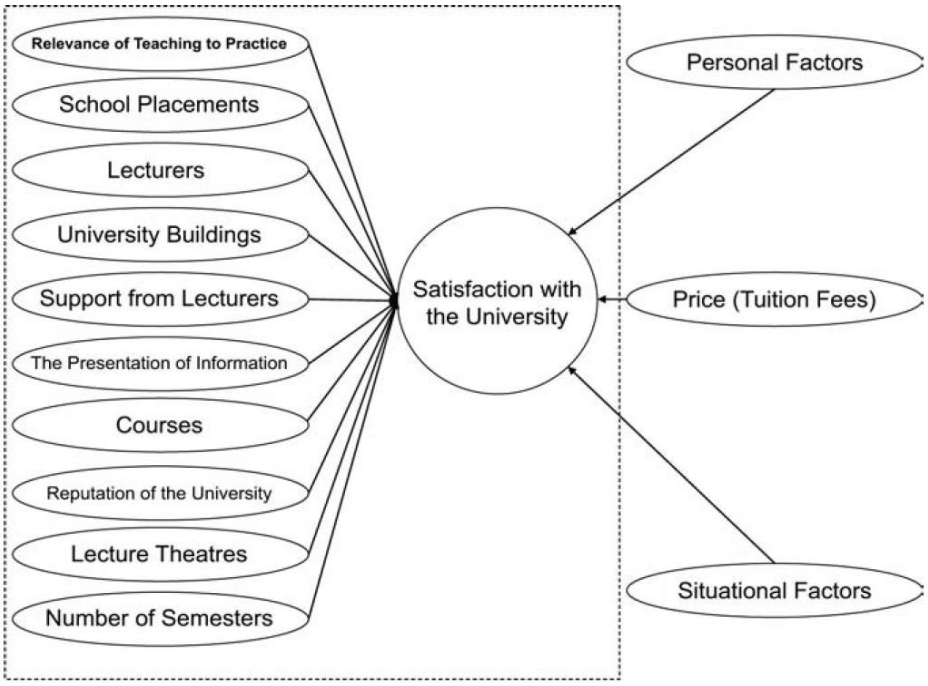

FIGURE 4.1: INFLUENCING FACTORS OF UNIVERSITY SATISFACTION (GRUBER *ET AL*., 2010)

The study was motivated by the identified gaps in the literature regarding: commencing student expectations and experiences; the lack of focus on ancillary services and overall HEI experiences in comparison to other evaluations directly related to teaching and

learning; and the lack of consideration of additional factors influencing expectations and satisfaction. Additionally, most research focuses on data collected from an organisational perspective and asks students about issues that the organisation identifies as important (Gruber *et al*., 2010; Oldfield and Baron, 2000). In order to address the identified gaps, this study aims, first, to investigate the concerns and expectations of students commencing their studies at an English university using a questionnaire initiated by students through a grounded approach and, second, to examine whether there are differences in perceptions and expectations within the commencing student cohort based on demographic and other characteristics, such as gender, age, accommodation type and funding. In order to achieve these aims, the methodological approach that was used will be discussed in the following section.

4.4 Methodological Approach: Iteration 1

Research has argued that to survive escalating financial cuts and to stay competitive, it is crucial for HEIs "to focus firmly on core purposes and in universities with a student-centred mission, ensuring student satisfaction and assurance of the quality of provision" (Brown, 2011, p. 195). Accordingly, student feedback has grown in importance (Carless *et al*., 2011; Harvey, 2003) and is crucial for the development of student learning, as well as for the enhancement of quality and satisfaction. For this purpose, various approaches to the assurance of quality and student satisfaction have been introduced in the HE sector (Grebennikov and Shah, 2012; Gruber *et al*., 2010; Becket and Brookes, 2008; Douglas *et al*., 2015, 2008, 2006; Richardson, 2005). This development is in accordance with the growing consumerism of HE and the perspective of students as customers. Some of these approaches will be explained in the following sub-section and it will be argued why these tools were not appropriate for this particular study. Then, the method used, and its development, will be discussed along with the sampling approach.

4.4.1 Current Measures of Customer Satisfaction and Quality in HE

To more effectively measure student satisfaction, various approaches related to customer service research have been used. Research regarding service quality is often based on the confirmation-disconfirmation paradigm or the gap-model of service quality (Clemes *et al*., 2008; Appleton-Knapp and Krentler, 2006; O'Neill and Palmer, 2004; Aldridge and Rowley, 1998). Thus, an often used foundation for research into customer satisfaction and the perception of service quality is the early work of Parasuraman *et al*.

(1985, and revised work 1988), using the SERVQUAL model, which defines service quality using five so-called RATER dimensions: reliability; assurance; tangibles; empathy; and responsiveness. The SERVQUAL model views perceived service quality as the gap between expected and perceived service and, therefore, assumes that the perception of service quality leads to customer satisfaction.

Owing to the varying views on service quality, expectations and satisfaction, this model has often been criticised mainly for poor reliability and validity (see, for example, Cronin and Taylor, 1992). As a result, Cronin and Taylor (1992) developed the SERVPERF technique, which measures service quality based on performance perceptions only. While also criticised, this performance measure method has been argued to be superior to Parasuraman *et al*.'s difference-score measure method (Clemes, 2008). However, owing to the disagreement regarding the role of expectations for perceived service quality, both paradigms (i.e., the disconfirmation paradigm (SERVQUAL) and the perception paradigm (SERVPERF)) continue to be equally used and criticised by different authors.

Based on the work of Cronin, Taylor, Parasuraman and colleagues, Firdaus (2006a, b) developed HEdPERF, a performance-based measure to evaluate service quality exclusively in HE, measuring quality related to 41 items. The 41 items may be classified into one or more of six pre-defined constructs: non-academic aspects; academic aspects; reputation, access; programme issues; and understanding. Another frequently used method to measure student satisfaction is the Noel-Levitz Student Satisfaction Inventory (Munteanu *et al*., 2010; Richardson, 2005). This questionnaire contains 76 or 79 items (depending of the length of the degree programme) and students are asked to rate both the level of perceived importance and the level of satisfaction regarding the same aspect. The focus in all of these methods is on perceived quality and satisfaction, rather than prior expectations and they are, therefore, of limited use for this research.

Further, research mostly focuses on data collected from an organisational perspective, asking students about issues that the organisation sees as important, without necessarily taking into consideration all of the relevant factors that students see as important (Gruber *et al*., 2010; Appleton-Knapp and Krentler, 2006; Oldfield and Baron, 2000). One exception is the SERVQUAL model (Becket and Brookes, 2008); however, this model has other limitations (Cronin and Taylor, 1992). Therefore, there is a need to

develop a tool which is informed by student rather than organisational perceptions. While questionnaires are a frequently-used tool for the exploration of constructs such as quality, expectations and satisfaction, the study had to develop a new questionnaire in order to achieve the research aims. The applied approach will be discussed in the next section.

4.4.2 Development of a Research Instrument through Grounded Approach

To provide a basis for the subsequent research reported in this thesis, and since quantitative data is seen as more objective, at this early stage of the research, questionnaires were used to explore concerns of first year UG students. The outcomes of this initial research then guided and informed the further research (study 2 on student employability and study 3 on confidence development – see Chapters 5 and 6, respectively), which will use quantitative and qualitative data in order to maximise the validity and reliability of the overall results.

As most existing tools measure perceived quality and satisfaction of students after they have experienced HE services and are also based on an organisational perspective, a new tool was developed for this study. The questionnaire development was informed by prospective HE students and aimed to measure student expectations before the HE experience. Oldfield and Baron (2000) argue that developing a student-led questionnaire can provide a more holistic evaluation of the student experience rather than the organisational focus on teaching and learning. Also, a majority of studies in HE fail to incorporate the wider context of the research (Naidoo and Jamieson, 2005), which is particularly important in this case as the study is motivated by the policy changes in English HE, and specifically the increase of tuition fees for students in England. This approach conforms to the interpretivist paradigm as interpretivist research aims to find out more about certain experiences, as well as meanings and perspectives, which cannot stand in isolation but often depend on temporal events (Erickson, 1986).

The developed questionnaire was based on a grounded approach, which is an inductive approach with the main purpose of revealing and grouping issues of concern and of exploring various categories and their links (Hill *et al*., 2003). Issues were identified through focus groups (see Appendix C.1) and then grouped and categorised based on categories from established questionnaires and the literature in the field. This development method was based on previous research which uses the same approach to develop a data collection tool (Munteanu *et al*., 2010; Clemes *et al*., 2008; Firdaus,

2006b; Richardson, 2005; Oldfield and Baron, 2000; Aldridge and Rowley, 1998). After conducting focus groups with prospective HE students, utterances were grouped and then formulated into questionnaire items, further described in the following sub-section.

4.4.3 Developed Questionnaire to Measure Student Expectations of Ancillary Services

As the literature analysis indicated, little is known about the thoughts, attitudes and feelings of newly arriving students at universities (Grebennikov and Shah, 2012). Therefore, this initial stage of the overall research investigated the relation between student demographics and other characterising factors and the expectations of their HE experience. The goal of the questionnaire was to identify areas of concern and relate them to the service areas that are responsible for those types of issues. Relating the concerns to the corresponding services will indicate which services are needed mostly by students and will then be investigated in the further focus of the research. Also, the questionnaire aimed to identify individual differences within a student cohort (i.e., to explore which demographic and other variables impact on expectations). HEIs have to understand the demographic and other factors that influence student perceptions at an individual and cohort level in order to develop a HE experience which can satisfy individual needs (Felder and Brent, 2005).

This section describes the developed questionnaire, implemented in September 2012 during the registration process for the academic year 2012/13 at Brunel University. As discussed, the questionnaire items derived from the concerns raised by participants of the focus group and the categorisation of utterances based on the literature. The grouping of items led to the investigation of student expectations and concerns regarding four factors: administrative and organisational matters (AOM); financial matters (FM); living, leisure and accommodation (LLA); and personal matters (PM). The questionnaire was divided into three main sections: general participant demographic information; the measurement of concerns and expectations regarding the four factors; and an open-ended question exploring any further issues that the respondent wished to raise (see Appendix C.2).

The first section asked for basic demographic information from the participant, such as gender and age, as well as other identifying factors, such as study course, mode of study (full-time, part-time or full-time sandwich programme), status (home/UK, EU or international student), funding scheme (self-funded, government loan or scholarship),

type of accommodation (on or off campus) and selection made by the student in relation the study programme (unconditional firm status, insurance choice or clearing). These variables were intended to be used as the basis for cross-tabulation and other measures of relationships and dependencies in order to analyse expectations for specific groups.

In the second section, the participants were asked to rank their expectations and concerns in relation to the four factors using a Likert scale. For the ease of completion, all items were formulated in closed questions (Aldridge and Rowley, 1998). Likert scales are an effective tool to code and record data, analyse the collected data and evaluate the findings, and to formulate a hypothesis, conclusion or generalisation. The practice of Likert-scale type measurements and the use of an even or odd number of categories is an often-discussed issue (for an overview see Adelson and McCoach, 2010). This study used an even number of categories (very concerned, concerned, somewhat concerned, not at all concerned) without a neutral point, in order to force participants to take a clearer stance, rather than selecting the neutral option (Aldridge and Rowley, 1998; Busch, 1993), as well as a "not applicable" option in case a statement was not relevant to the participant.

As the main disadvantage of quantitative research methods is the exclusion of other possibilities and unexpected answers, the last section of the questionnaire involved an open-ended question aiming to investigate whether there were any additional topics that had not been identified by the researcher but that the respondent wanted to raise.

4.4.4 Sampling and Participants (Iteration 1)

While the target population comprised first year UG students in England, the population of interest for this study were first year UG students from Brunel University (described in Chapter 3) – this in itself could be seen as convenience sampling as this is the sample available due to accessibility (Bryman and Bell, 2011; Fraenkel and Wallen, 1996). However, seeing first year UG students at Brunel as the overall population, simple random probability sampling was used in both iterations, with all first year UG students having the same chance of being selected. There was no discrimination in terms of any demographics or subject of study. Ethical approval was granted by the Research Ethics Committee for all phases of the data collection in this study (see Appendix B.1). Further, to conform to ethical regulations, participants had to indicate that they were 18 or above and that they understood the terms of participation (i.e., that participation was voluntary, anonymous, confidential and that withdrawal was possible at any time).

The surveys were conducted over two years with newly arriving first year UG students at Brunel University during the registration period for the academic year 2012/13 and 2013/14. The questionnaires were handed out by the researcher during the registration period in the week preceding the official university start date, after the students finished the registration process. To reduce bias, students were not selected by the researcher but were approached as they left the registration; students were not asked to participate if the researcher was interacting with other participants by the time they finished the registration process. The researcher used six clipboards and was hence able to implement the survey with six participants simultaneously.

Owing to the nature of this study and its time constraints, only a representative sample of this group was surveyed. Considering reliability and validity (Mertens, 2010; Fraenkel and Wallen, 1996), the results could then be generalised for the whole population of first year Brunel UGs. However, generalisation was not the main purpose of this study. Rather, the study aimed to identify issues of concerns to commencing students in order to explore those issues in-depth. Determining sample sizes in quantitative research is a controversial issue. The commonly used formula to attain a suitable sample size was used (Mertens, 2010); assuming a total population of 3000 arriving students, and a 95 per cent level of certainty and a five per cent margin of error, the sample has to include around 340 students. Thus, the researcher aimed to collect between 300 and 350 complete and valuable questionnaires. After exclusion of incomplete or inadequately completed questionnaires, the total number of responses accepted for further analysis was N=272 for iteration 1 and N=268 for iteration 2. The total number of commencing UG students was around 3,100 for both years. Hence, the sample roughly represented about nine per cent of the population.

Table 4.1 summarises the data related to demographic and other identifying characteristics associated with the respondents of the first iteration of the study.

		Female	Male	Total
Gender		111	161	272
Age	18	80	66	146
	19	17	66	83
	20+	14	29	43
Mode of Study	Full-time	94	151	245
	Part-time	-	-	-
	Sandwich Programme	17	10	27
Status	International	11	20	31
	EU	11	23	34
	UK	89	118	207

Funding	Self-funded	18	24	42
	Self-funded with loan	89	131	220
	Scholarship/ sponsor	4	6	10
Type of accommodation	Off campus (private)	4	4	8
	Off campus (home/family)	36	53	89
	On campus	71	104	175
Selection	Unconditional firm status	66	88	154
	Insurance choice	24	28	52
	Clearing	21	45	66

TABLE 4.1: PARTICIPANTS' PARAMETERS: ITERATION 1 (2012/13)

In iteration 1, 59.2 per cent of the total participants were males and 40.8 per cent were females. 84.2 per cent of the participants were 18 or 19 years old and 90.1 per cent were enrolled in a full-time, non-sandwich, UG programme. 11 per cent of the participants were international students, 13 per cent EU students and 76 per cent home students from the UK. 64 per cent of the participants lived on campus, 33 per cent off campus in a family home and only three per cent lived off campus in private accommodation. Owing to the changing university fees and funding scheme, it is not surprising that 80 per cent of the participants had taken out a student loan in order to finance their studies; only 15 per cent of the participants were fully self-funded. 56.6 per cent of the students selected Brunel as their unconditional firm status, while 19.1 per cent had Brunel as their insurance choice and 24.3 per cent of participants received a study place based on clearing.

4.5 Data and Results: Iteration 1

This section describes the data and results of iteration 1 of the survey investigating commencing students' concerns and expectations. First, the frequency counts and other descriptive statistics will be briefly presented. Then, as the study used a new questionnaire with a large number of questionnaire items, the exploratory factor analysis (EFA), used to reduce the number of items and to justify the grouping and factorisation of items, will be explained. The correlations between the questionnaire items and the participants' characterising variables will be examined. Finally, the outcomes of the final section of the questionnaire, investigating any unmentioned concerns students might have had will be briefly discussed. Since the main aim is to explore concerns and expectations, the focus lies on understanding concerns and how participant parameters impact those concerns, rather than on generalisation or the development of a new measurement tool.

4.5.1 Descriptive Analysis

This sub-section will provide a broad summary of the key findings by frequency count; a complete overview of all questionnaire items (before EFA) and the frequencies for each response category, as well as basic descriptive statistics can be found in Appendix C.3.

The frequency counts suggested incongruent findings with respect to many questionnaire items: the share of students within the top two categories ('very concerned' and 'concerned'[2]) in comparison to students within the bottom two categories ('somewhat concerned' and 'not at all concerned') for the same question were often equally or similarly distributed with no significant differences (e.g., 50/50 per cent, 40/60 per cent, 60/40 per cent).

To provide a specific example, within the factor AOM, 56 per cent of the participants rated themselves '(very) concerned', while 44 per cent rated themselves 'somewhat concerned' or 'not at all concerned', in relation to whether they would receive enough support from their lecturers. Similarly, 42 per cent were worried about what to do if they have communication issues with lecturers or fellow students; 58 were unconcerned. 40 per cent of the participants were (very) concerned whether there is a general help desk for problems and another 40 per cent were somewhat concerned. Additionally, 42 per cent were (very) concerned about where to go with their problems and 43 per cent were somewhat concerned about this issue. On average, 40 per cent of the participants were (very) concerned and 37 per cent were somewhat concerned regarding computer access, library resources, studying outside of class and group work. Considering that the majority of participants (76 per cent) were students from the UK, it is not surprising that 106 participants were not at all concerned about how to improve their English, Maths or general academic skills. Nevertheless, it has to be considered that 30 per cent of the students were (very) concerned about struggling academically. Further, while only 27 students were enrolled in a sandwich programme (involving a placement year between year 2 and 3), a majority of 51 per cent was (very) concerned whether the university could support them to find a placement.

Regarding financial matters, it is crucial to acknowledge that 220 participants (80.9 per cent) took out a student loan in order to finance their studies. In response to this funding

[2] From here on these two categories will be conjointly represented as (very) concerned.

question, participants responding "not applicable" usually had a scholarship or were fully self-funded. For the analysis, the answer option "not applicable" was treated as representing missing values and percentages were calculated accordingly. Considering the high number of students taking out loans, it is not surprising that 50 per cent of the participants were (very) concerned whether they would be able to pay back their student loan; another 34 per cent were somewhat concerned. 43 per cent were (very) concerned about both payment deadlines and the consequences of missed payments. 39 per cent of the participants were concerned whether they have to pay each term in full or in instalments and 35 per cent were concerned whether they could change their payment scheme. Considering the high number of students taking out loans, it is not surprising that 50 per cent of the participants were (very) concerned whether they would be able to pay back their student loan; another 34 per cent were somewhat concerned. Even though only 10 participants had a sponsor or scholarship, 24 decided that applying for a scholarship after the beginning or their studies would not be applicable. Nevertheless, 42 per cent of the participants were (very) concerned whether the university could support them financially. This may reflect a lack of understanding of the types of support available within the university.

Within the factor LLA, 88 per cent of the students were (very) concerned or somewhat concerned about their living expenses during their studies. Around 30 per cent of participants were (very) concerned about information regarding transportation and the surrounding area and the nightlife on and off campus. As expected due to the cultural and national diversity of the participating students, on average about 30 per cent of the students were (very) concerned about the availability of food, speciality food and the affordability of the food served on campus. 40 per cent of students were (very) concerned both about where to meet other students and how to join clubs and societies. 34 per cent were (very) concerned about the extra-curricular activities available and the consequences that they may have on their studies. While students were not very concerned whether they were allocated to one specific GP (General Practitioner), 53 per cent were (very) concerned about what to do in the case of an emergency when the medical centre is closed.

The frequencies regarding personal matters were rather inconsistent. While only 19 participants (7 per cent) were very concerned about whether there was someone to talk to about personal problems, 91 (33 per cent) were concerned about this. In contrast,

only 33 students (12 per cent) were concerned about whether there were psychologists or counselling services available on campus. 49 per cent of the participants were somewhat concerned about giving feedback and suggestions and 42 per cent were somewhat concerned whether this would make a difference. 41 per cent were (very) concerned about whether it was worth going to university and 56 per cent were concerned to the same degree about whether they would have better chances in the job market as a result. Finally, 46 per cent of the participants were (very) concerned about whether they would be dealing with like-minded people.

4.5.2 Statistical Analysis

To analyse the data, univariate and multivariate statistical analysis were conducted through the use of the software package SPSS (Version 18.02 and 20). Initially, a chi-square test for independence was conducted to examine the relation between variables and questionnaire items. Then, exploratory factor analysis, using principal components with Varimax rotation, was performed to determine the underlying factors of the 43 questionnaire items. Internal consistency was tested using Cronbach's α coefficient. Then, depending on the normality of the data, to investigate associations and relationships between variables and factors, various parametric and non-parametric methods (such as independent samples t-test, Mann-Whitney U test, analysis of variance, and a Kruskal-Wallis test) were conducted.

Chi-Square Test for Independence

A chi-square test for independence was performed to examine the relation between each variable and all items of the questionnaire and to test for the presence of associations between variables. This test was chosen, because some of the items were not normally distributed and the chi-square test is a non-parametric test. The importance of the relation between variables can be measured by observing the p-value and Cramér's V (Cramér, 1946). In the chi-square test, Cramér's V is used to describe the importance of association between two variables. The guidelines to interpret the measure of association vary across the literature. This study used the guidelines from Botsch (2011) and Pallant (2010), who measure the association reflected through Cramér's V for multiple categories as follows: .01 to .05: no or negligible relationship (complete independence of variables); .06 to .10: weak relationship; .11 to .16: moderate relationship; .17 to .29: strong relationship; and .29 or higher: very strong relationship

(strong dependence of variables). (Significant results for each variable are presented in Appendix C.4.2 – C.4.8).

Table 4.2 summarises the outcomes of the test of correlation, representing the number of questionnaire items that have a significant association with the specific demographic information, indicated through a significant p-value (for a detailed overview of the correlation of each variable on all items, see Appendix C.4.1). Further, it is shown how many of the significant relationships have a strong Cramér's V value above .20 and the weighting of items with strong relationships in relation to all significant associations. To show the most significant results, a cut-off value of .20 was chosen, as the value .17 resulted in too many significant outcomes.

	Significant p-value	Cramer's V > .2	%
Gender	14	5	35.7
Age	22	13	59.1
Mode of study	19	11	57.9
Status	33	14	42.4
Funding	17	7	41.2
Type of accommodation	39	31	79.5
Selection	25	7	28.0

TABLE 4.2: INFLUENCE OF PARTICIPANTS' PARAMETERS (ITERATION 1)

Age, status, and type of accommodation were the variables with the most and strongest relationships towards the questionnaire items and, hence, seen as the most influential. However, taking the effect size into consideration, it is clear that type of accommodation was the variable with the highest impact, with 79.5 per cent of the relationships having a strong association. In comparison, while the variable selection had significant relationships to 25 questionnaire items, only seven (28 per cent) had strong associations, indicated by a Cramér's V above .20. Consequently, it can be suggested that age, status and type of accommodation were the most influential variables on student expectations.

Exploratory Factor Analysis (EFA)

To clearly identify and classify the issues of highest concern for students, EFA was used to simplify and structure the large amount of data obtained. EFA can be applied to determine interdependencies between factors and to test the linear association to unobserved variables. Further, data reduction was executed owing to the large number of variables (Hair *et al.*, 2006). To assess the factorability of the data, a significant Bartlett's Test of Sphericity of $p<.05$ and the measurement of the Kaiser-Meyer-Olkin (KMO) were used. The KMO value was .87, exceeding the recommended value of .6

(Kaiser, 1974) and the Bartlett's Test of Sphericity (Bartlett, 1954) reached statistical significance (p<.001), supporting the factorability of the correlation matrix (see Table 4.3).

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.871
Bartlett's Test of Sphericity	Approx. Chi-Square	7435.846
	df	903
	Sig.	.000

TABLE 4.3: KMO AND BARTLETT'S TEST (ITERATION 1)

Through principal component analysis it was found that eleven components had a recorded eigenvalue above 1, which is the benchmark for extraction (Kaiser, 1974). The first eleven components explained a total of 71.17 per cent of the variance. However, an inspection of the scree plot exposed a break after the fifth component (see Figure 4.2).

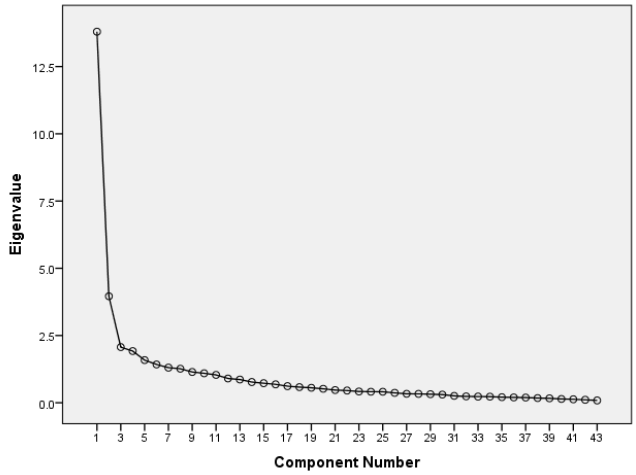

FIGURE 4.2: SCREE PLOT (ITERATION 1)

After using Catell's (1966) scree test, it was decided to retain five factors for further analysis: the original four factors LLA, AOM, FM and PM and one additional new factor (EM), which will be explained in more detail in section 4.6.4. The five factor solution explained a total of 54.27 per cent of the variance.

To aid the interpretation of the factors, to detect factor loading and to reduce the number of variables, Varimax rotation was performed (see Table 4.4). While studies have given a variety of cut-off values for the retention of items based on the value of factor loading, this study removed all loadings of .4 or less, as suggested by Hair *et al*. (2006), as well as all items that experienced across loading. All five factors show a number of strong loadings and all variables loading substantially on only one factor.

Question	Factor 1: LLA	Factor 2: AOM	Factor 3: FM	Factor 4: PM	New Factor: EM
LL6	.780				
LL4	.764				

LL11	.729				
LL13	.715				
LL10	.708				
LL8	.703				
LL3	.665				
LL12	.643				
LL5	.619				
LL2	.604				
LL9	.553				
LL1	.541				
AOM8		.652			
AOM12		.637			
AOM7		.637			
AOM1		.625			
AOM2		.602			
AOM6		.599			
AOM3		.559			
AOM5		.492			
FI4			.750		
FI7			.729		
FI5			.712		
FI2			.669		
FI6			.551		
PM2				.834	
PM1				.606	
PM7					.741
PM6					.734
PM5					.715

TABLE 4.4: ROTATED COMPONENT MATRIX (ITERATION 1)

As a result of the EFA, the revised research model contained five rather than four factors, with 30 items in total. The reliability was measured using Cronbach's alpha (see Table 4.5). An alpha value above .5 is accepted, but a value above .7 is desired and demonstrates internal consistency of new and established scales, so the revised model can be seen as being strong and reliable (Hair *et al*., 2006; Nunnally, 1988).

Factor	Cronbach's Alpha	Number of Items
LLA	.904	12
AOM	.843	8
FM	.810	5
PM	.734	2
New Factor (EM)	.774	3

TABLE 4.5: CRONBACH'S ALPHA (ITERATION 1)

Test of Normality

To determine the statistical tests to be further conducted, it has to be tested whether the data is parametric or non-parametric through a normality test. The normality of data can be tested either through statistical tests or visual inspection. Statistical tests have the advantage of being more objective, but they are often influenced by sample size. As the sample size for this study was rather large (large samples are 200+ cases: Pallant, 2010;

Field, 2009; Tabachnick and Fidell, 2007) some statistical values, for example the Kolmogorov-Smirnov statistic, could indicate violation of the assumption of normality while the data is in fact normally distributed. The Kolmogorov-Smirnov test of normality for the factor data indicated significant results (sig. value of under .5) (see Table 4.6); this suggested a violation of the assumption of normality.

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
AOM	.069	272	.003	.977	272	.000
FM	.136	272	.000	.966	272	.000
LLA	.109	272	.000	.954	272	.000
PM	.155	272	.000	.896	272	.000
EM	.119	272	.000	.958	272	.000

TABLE 4.6: TEST OF NORMALITY (ITERATION 1)

The normality of the data was also tested through the measurement of skewness and kurtosis (see Appendix C.5.1). These values provide the empirical measure of the distribution's shape characteristics and offer guidance to variables with significant deviation from normality. The most frequently used critical z-scores for large samples (>200) for skewness and kurtosis are ±2.58 ($p < .01$) and can be calculated using the following formulae (Field, 2009, Hair *et al*., 2006):

$$z_{skewness} = \frac{S-0}{SE_{skeness}} \qquad z_{kurtosis} = \frac{K-0}{SE_{kurtosis}}$$

The values for z-scores for skewness and kurtosis for the factors AOM, FM and EM indicated a normal distribution; however, the z-scores for LLA and PM exceeded the value of ±2.58 and these factors were not normally distributed (see Table 4.7).

	Skewness			Kurtosis		
	Statistic	Std. Error	z	Statistic	Std. Error	z
AOM	-.322	.148	-.2175	-.348	.294	-1.183
FM	-.351	.148	-2.371	-.665	.294	-2.261
LLA	-.796	.148	-5.378	1.351	.294	4.595
PM	-.826	.148	-5.581	.781	.294	2.656
EM	-.086	.148	-.581	-.630	.294	-2.142

TABLE 4.7: SKEWNESS AND KURTOSIS (ITERATION 1)

Since this can frequently occur in large samples, histograms and Q-Q plots were used to further evaluate whether the assumption of normality was violated (see Appendix C.5.2). Based on these methods the normality of the data was proved. In the visual presentation, it can also be seen that the data for LLA and PM was skewed to the right. Consequently, for these factors in addition to parametric tests the corresponding non-parametric equivalents were analysed.

Independent-Samples t-Test and Mann-Whitney U Test

The following sub-section discusses the use of an independent-samples t-test, which was applied to compare the factor scores for pairs of groups, such as males and females, full-time and sandwich-course students, and for students living on or off campus. To comply with the statistical assumption, for the factors LLA and PM the non-parametric equivalent to t-tests, the Mann-Whitney U test, was also conducted.

Gender: An independent-samples t-test was conducted to compare the factor scores between males and females, as well as a Mann-Whitney test for the factors which did not show a normal distribution (LLA and PM) (see Appendix C.6.1). There was only a significant difference in scores for males and females for the factor LLA; males (M=2.50, SD=.853) and females (M=2.74, SD=.644) (p=.008). The magnitude of the differences in the means – the effect size – was quite small (Cohen's r=.3). Cohen (1988) suggested the following effect size thresholds: r=.2: small effect; r=.5: medium effect; and r = 0.8: large effect. The Mann-Whitney test, comparing medians rather than means, confirmed the absence of significant differences between males and females for the factor PM but a very small difference for LLA was observed: males (Mdn=2.58) were more concerned about LLA than females (Mdn=2.75); U=7630; z=-2.05; p=.04; r=.1.

Mode of study: Participants were divided into two groups according to their mode of study (Group 1: full-time; Group 2: sandwich-course); no participant in the sample was enrolled as a part-time student. No statistically significant difference in scores for full-time and sandwich course students in relation to any of the five factors was identified. The Mann-Whitney test confirmed the absence of any significant differences between full-time and sandwich students for LLA and PM. (Appendix C.6.2)

Type of accommodation: Participants were divided into groups depending on their living arrangements (Group 1: off campus; Group 2: on campus). Due to the low number of participants living off campus in private accommodation, the two categories living off campus (private accommodation off campus and off campus family home) were united for the statistical analysis. There was a significant difference in scores for students living on and off campus for the factors AOM, FM and PM, with medium to large effect sizes (see Table 4.8).

	On campus	Off campus	p	r
AOM	M=2.60, SD=.639	M=3.01, SD=.542	<.001	0.7

FM	M=2.35, SD=.834	M=2.92, SD=.070	<.001	0.8
PM	M=2.82, SD=.856	M=3.27, SD=.084	<.001	0.5

TABLE 4.8: INDEPENDENT SAMPLE T-TEST: TYPE OF ACCOMMODATION (ITERATION 1)

The Mann-Whitney test also confirmed a difference between students living on campus in comparison to students living off campus for PM as well as LLA. For PM, students living on campus (Mdn=3.00) and off campus (Mdn=3.00) had the same median value; nevertheless, U=5,807; z=-4.415; p<.001; r=.3. For LLA, students living on campus (Mdn=2.58) were more concerned than students living off campus (Mdn=2.75); U=7,027; z=-2.352; p=.019; r=.1 (see Appendix C.6.3).

Analysis of Variance and Kruskal-Wallis Test

To analyse differences in factor scores of variables with more than two groups – such as age, status, funding and selection status – Analysis of Variance (ANOVA) was used. Each of these variables will be discussed in turn. For the analysis of the factors LLA and PM, which violated the assumption of normality, a Kruskal-Wallis test was performed.

Age: A one-way, between-groups ANOVA was conducted to explore the impact of age on all five factors. Participants were divided into three groups according to their age (group 1: 18 years old; group 2: 19 years old; group 3: 20 and above). There was a statistically significant difference at the p<.05 level in AOM, FM and PM scores for the three age groups: AOM: [F(2, 269)=3.8, p=.023]; FM: [F(2, 269)=4.5, p=.012]; and PM: [F(2, 269)=6.2, p=.002]. Despite reaching statistical significance, the actual difference in mean scores between the age groups was quite small. Especially in large samples, it can often occur that there are statistically significant results, however, the actual difference in mean scores is very small – this can also be indicated by the effect size. The effect size, calculated using eta squared, was .02 for AOM, .03 for FM and .04 for PM. Cohen (1988) suggested that a small or large effect size is represented by: eta squared (η^2)=.01: small effect; η^2=.059: medium effect; η^2=.138: large effect. Post-hoc comparisons using the Turkey HSD test (Tabachnick and Fidell, 2007) indicated that the mean score for Group 1 (M=2.67, SD=.0543) was significantly different from group 3 (M=2.27, SD=.752) (p=.012) for FM; group 2 (M=2.48, SD=.893) did not differ significantly from either group 1 or 3. For PM, the post-hoc test indicated a significant difference between the same age groups: group 1 (M=3.13, SD=.904) and group 3 (M=2.63, SD=.952) (p=.002). No statistically significant mean difference between groups was found for AOM. A Kruskal-Wallis test confirmed a statistically significant

difference in PM scores between the different age groups, χ^2 (2)=17.859, p<.001, with a mean rank of 153.98 for group 1, 122.36 for group 2, and 104.43 for group 3. Further, this non-parametric test indicated a significant difference for the factor LLA: χ^2 (2)=5.992, p=.05. However, as the significance was exactly at the cut-off p-value, differences in mean ranks were not as significantly different between the age groups with 147.20 for group 1; 122.15 for group 2 and 127.97 for group 3 (see Appendix C.7.1).

Status: Participants were divided into three groups according to their status (group 1: international students; group 2: home student (UK); group 3: EU student). There was a statistically significant difference in AOM, FM and PM scores for the three groups: AOM: [F(2, 269)=8.8, p<.001.]; FM: [F(2, 269)=6.4, p=.002]; PM: [F(2, 269)=8.4, p<.001]. The effect size was medium, with η^2=.06 for AOM, η^2=.05 for FM and η^2=.06 for PM. Post-hoc comparisons indicated that the mean score for group 1 (M=2.37, SD=.661) was significantly different from that for group 2 (M=2.83, SD=.609) (p<.001) for AOM; group 3 (M=2.57, SD=.643) did not differ significantly from either group 1 or 2. The Turkey HSD test also indicated a significant difference between international and UK students for FM: group 1 (M=2.07, SD=.995) and group 2 (M=2.63, SD=.788) (p=.001). For PM, the test indicated a significant difference between group 1 (M=2.56, SD=.783) and group 2 (M=3.10, SD=.883) (p=.003), as well as between group 2 (M=3.10, SD=.883) and group 3 (M=2.65, SD=.657) (p=.012). A Kruskal-Wallis test confirmed the presence of a statistically significant difference in PM scores between the different status groups, χ^2 (2)=21.729, p<.001, with a mean rank of 96.73 for group 1, 148.67 for group 2, and 98.69 for group 3. Further, a significant difference for the factor LLA was detected: χ^2 (2)=8.202, p=.017, with a mean rank of 107.74 for group 1; 144.05 for group 2 and 116.78 for group 3 (see Appendix C.7.2).

Funding: Participants were divided into three groups according to their funding status (group 1: self-funded students; group 2: self-funded with a student loan; group 3: funded by a scholarship or sponsor). Surprisingly, there was no statistically significant difference in the factor FM; however, a difference was identified in the AOM and PM scores for the three groups: AOM: [F(2, 269)=5.7, p=.004.]; PM: [F(2, 269)=3.7, p=.026]. The effect size was rather small, with η^2=.04 for AOM and η^2=.03 for PM. The post-hoc comparisons indicated that the mean score for group 2 (M=2.79, SD=.616) was significantly different from that for group 3 (M=2.16, SD=.550) for AOM (p=.006);

group 1 (M=2.62, SD=.690) also differed rather significantly from group 3. The test indicated a significant difference between sponsored/scholarship students and students with a student loan for PM: group 2 (M=3.03, SD=.866) and group 3 (M=2.30, SD=1.059) (p=.025). There was no significant difference between group 1 (M=2.89, SD=.793) and the other two groups with respect to PM. Further, the Kruskal-Wallis test confirmed that there was a statistically significant difference in PM scores between the different status groups, χ^2 (2)=5.732, p=.05, with a mean rank of 126.07 for group 1; 140.78 for group 2, and 86.25 for group 3 (see Appendix C.7.3).

Selection: Participants were divided into three groups according to their selection status (group 1: unconditional firm status; group 2: insurance choice; group 3: clearing). Undertaking both ANOVA and the non-parametric equivalent Kruskal-Wallis test, no statistically significant differences were identified within the variable 'status' and the underlying factors (see Appendix C.7.4)

4.5.3 Interpretation of Open-ended Questions

Only 15 participants completed the final section of the survey, which asked for any additional issues which were of particular importance to the participants. Therefore, no particular method was used to evaluate the outcomes of the final section. All responses are listed in Appendix C.8. The responses were allocated to one of the five factors based on the researcher's judgement. The comments regarding disabilities and the related support, as well as comments regarding employability, were considered and incorporated in the design of the revised questionnaire (see Section 4.7.1). Owing the low response rate for this section, no further analysis or interpretation was undertaken.

4.6 Discussion and Recommendations: Iteration 1

As discussed previously, student satisfaction is influenced by the level of expectations of various factors; however, research has often neglected additional factors, such as personal and situational factors or the price of attending university (Gruber *et al*., 2010). Hence, the current study aimed to add to previous research by analysing the influence of such additional variables. The following sub-sections discuss the evaluation of the study's key findings and provide recommendations related to the identified issues.

4.6.1 Young UK Students are Often More Concerned than their Older, International and EU Peers

The chi-square test indicated a significant association between status and age, $\chi^2(6, n=272)=.217$, $p=.001$. This can be explained through the fact that the groups of older students contained a higher ratio of international and EU students, while the 18 year-old age group was mostly made up of UK students. Out of the 43 students aged 20 years and above, 41.9 per cent were international or EU students, whereas they comprised only 13.7 per cent of the 18 year-old group. In comparison, 86.3 per cent of the students aged 18 years old were from the UK.

The variable status impacted on AOM, FM and PM; for all these factors, UK students showed a significantly higher mean score than international and EU students. However, in some instances, older students and international/EU students were more concerned about the issues than their younger peers from the UK. A specific example of this would be the concern regarding the improvement of English/Maths/academic skills ($\chi^2(3, n=255)=.219$, $p=.001$); in this case younger students were less concerned, owing to the fact that the proportion of international students is higher amongst the older age groups.

Through ANOVA it was demonstrated that age had a strong impact on the factors FM and PM, with students aged 18 being more concerned about both financial and personal issues than their older peers. The factor FM was, overall, impacted by the variables accommodation type, age and status in the following ways: (1) UK students had a higher mean score (i.e., were more concerned) than international students; (2) Students aged 18 years old were more concerned about financial issues than students aged 20+; and (3) Students living on campus were more concerned than students living off campus.

Young UK students often leave their parents' home for the first time to go to university; as such, it is to be expected that they will have higher concerns about budgeting and their financial situation at the beginning of their university experience. However, contrary to existing research (mainly on decision-making and choice in HE; e.g., Wilkins *et al*., 2013; Moore *et al*., 2011; Gruber *et al*., 2010; Gould, 2003), the variable 'funding' did not have a major impact on student expectations and concerns; that is, responses from participants with student loans did not significantly differ from students who were self-funded or had a scholarship/sponsor. Nevertheless, overall 91 per cent of the 220 students with a student loan were concerned to some degree about whether they

would be able to pay back their student loan. This makes it rather surprising that students seemed to have little concern about obtaining a scholarship after the commencement of their studies. As Wilkins *et al*. (2013) explain, finance impacts on the initial decision to participate in HE, however, once this decision has been made, financial issues are not of significant concern for students.

The rather mixed findings regarding financial matters could indicate that there is a lack of information and understanding about the new funding schemes, student loan implications and finance opportunities (Booij *et al*., 2012; McGuigan *et al*., 2012). Especially in light of increased tuition fees, this could lead to many students dropping out of university or to not attending university (though current entry data does not suggest that this is yet materialising in the UK). It is important, then, that students are better informed about student finance and alternative funding options, such as scholarships. Universities should proactively approach students throughout their university career and encourage them to apply for scholarships. This is already done by many universities through the provision of information and direct links to (internal and external) scholarship and bursary options on the university website, direct email, as well as information and discussion events. Qualifying students should, though, be identified routinely and their needs recognised from the outset of their university experience. By identifying relevant students during the registration process, for example, they can be targeted and directed towards appropriate support, for instance in identifying and applying for knowledge- and skill-specific scholarships or ones based on (family) income-level.

With respect to AOM, LLA and PM, it may be useful to provide additional support and information for UK students. While many universities have special support for international students, such as an international student support office or special events and gatherings, young UK students may also often feel the need for additional support, specifically at the beginning of their university experience. This could be achieved, for instance, by organising induction activities specially tailored to meet the needs of UK students during the first weeks of the year or the provision of resources containing important information about campus life and university experience prepared from the perspective of this group's concerns, as well as important contacts and emergency numbers. The introduction of a buddy-programme or peer-mentoring, where broad backgrounds are matched, may also be helpful, though this would have to be

approached sensitively. This will be discussed in more detail in the following sub-sections.

4.6.2 Students Living on Campus Have Fewer Concerns Regarding their University Experience

A chi-square test identified a strong association between the variables status and type of accommodation, $\chi^2(4, n=272)=.207$, $p<.001$. Based on the t-test it can be argued that the type of accommodation has a high influence on the factors AOM, FM and PM; however, only gender was identified as a significant variable in relation to LLA. For all three factors (AOM, FM and PM), students living off campus displayed a higher mean score than students living on campus, indicating higher concerns. This could be as a result of a lack of a support and networking systems for students living off campus, compared to their peers living in campus accommodation who seem to have closer ties to their environment (Astin and Antonio, 2012). It would be useful, therefore, for universities to establish targeted support systems aimed at the following groups: young UK students and students living off campus. There would be value in buddy programmes that connect first-year students living off-campus with others, whether on- and off-campus, to help them to form support networks and become more 'anchored' in the university, or to use students from higher university levels (i.e., year 2 and 3 UGs), as mentors, to share their experiences and help develop familiarity with what can be a daunting, new environment and context. Such peer-mentoring can help students to settle more quickly in a new environment as any obstacles and problems are not being experienced by the new student alone.

With respect to LLA, students living on campus were more concerned; this is clearly owing to the fact that 97 per cent of the participating international students were living on campus, as well as 65 per cent of the EU students in the sample. Students living on campus are mostly young UK or international/EU students who are either not yet familiar with an independent lifestyle and, in the case of international and EU students, are less likely to be familiar with the related expenses of living in the UK. Universities might address these issues by running workshops and courses to provide the students with the necessary skills and knowledge of living on their own. Examples in the sector include workshops and tips on budgeting, understanding living costs and life skills such as cooking. Initial 'meet-and-greet' events organised by the students' accommodation team also help new students living on campus to meet others and quickly to form

friendships and develop a support network. Regular 'kitchen events' in university accommodation, organised by other students acting as residence mentors, can help to maintain these relationships, as well as improve the direct relationship between the university/ accommodation provider and the students.

Additionally, both groups of students addressed here would obviously benefit from specific information regarding issues such as local transportation, where to shop for food and other items, GP and hospital availability, nightlife and activities, and the contact details of important services (inside and outside the university).

4.6.3 Personal Matters are Highly Impacted by a Range of Variables

The factor PM was impacted by the variables type of accommodation, age, status, and funding, with students living on campus, younger students, UK students and students with a student loan having a significantly higher mean score than other groups. Personal issues, including the use/importance of counselling services and psychologists, are a delicate topic, as seems to be reflected by findings from the study. As such, a significantly lower proportion of students claimed to expect to make use of counselling services/ psychological support provided by the university, though many students agreed that they would like to have someone they could talk to about issues such as stress, depression, addiction or bullying. In essence, the concepts represented in the two questions that probed this area reflect the same issue and should have similar outcomes, so it might be assumed that the labelling of the support infrastructure is highly relevant to students' likelihood of accessing support. Student support units are often crucial for students, especially for those who are poorly prepared and challenged by the new environment and experiences, whereas the more significant life experiences of older students can mean that they are often less overwhelmed by new experiences such as entering the HE environment (BIS, 2011; Hill *et al*., 2003; Rickinson 1998). Re-branding existing counselling services, tailoring them to student needs and marketing them to students in a different way, such as listening services, might encourage students to embrace this type of professional help before they reach a crisis point. Open listening and discussion groups – led by (trained) students for students – could also encourage students to seek help.

The transition from secondary education to higher education is often difficult and it has been reported that it is essential to provide support and counselling for newly arriving students to support their study performance and reduce stress. Further, students who are

advised through support and counselling services are less likely to drop out from their degree programme when encountering difficulties (BIS, 2011). As already suggested, students can be greatly supported through the development of systems such as buddy programmes, peer-mentoring or professional counselling services, and there are examples of such programmes across the sector. However, prior research has argued that the simple provision of support units and networks is not sufficient, but that students have to be proactively approached in order to use those support structures (Hill *et al*., 2003; Rickinson, 1998). Therefore, it is be important to improve student awareness of such support groups and to provide useful and timely advice on how to cope with the transition to student life at universities, rather than waiting until students are in a position where they feel the need to see a counsellor. Research has shown that students felt supported and helped when they could share experiences with other like-minded students (Hill *et al*., 2003), reinforcing the potential value of student-led listening and discussion groups. The value of a peer approach as part of the support offered by universities may be reflected in the current research, where 63.6 per cent of the participants indicated that they were hoping to be dealing with like-minded people.

4.6.4 Employability: a Rising Issue, Worth Exploring from a Student Perspective

As a result of the EFA, a new factor was identified. This factor was labelled 'employability' as it encompassed question items that are related to the topic of graduate employability and the future of graduates. Graduate employability and related subjects, such as the economic benefits of HE studies, employability or transferable skills, as well as the competitive graduate labour market, have been a frequently discussed topic in recent years (see, for example: AGR, 2013; Cai, 2013; CBI/NUS, 2011; Dearing, 1997). It is important to note that no single variable had a significant impact on the new factor 'employability' (EM), but rather the student cohort overall had concerns regarding EM. For example: 45.6 per cent of the participants were still concerned after they had successfully registered at the university about whether it was truly worth participating in HE; 63.2 per cent were wondering if they would have a better chance in the job market as a graduate; and 66.9 per cent were expecting the university to support them in finding a placement. Students regardless of nationality, age, gender or funding scheme had similar mean scores in these areas. The importance of these areas suggests that the topic of employability needs to be further explored from a student perspective and that universities have to be aware of the (likely growing) concerns and expectations in relation to this topic.

Additionally, with changing demands, the purpose of HE has also shifted, with a focus on economic outcomes for the individuals as well as society in general. Therefore, it is not surprising that employability emerged as a new factor within the research model. Universities are under increasing pressure to produce employable graduates, and graduates have to face the challenging demands of employers regarding technical and transferable skills (Brooks, 2012). Work experience has been proven to be highly beneficial for improving academic performance, employability and increasing the chances of obtaining a graduate job (Brooks, 2012; Dearing, 1997). As such, universities should strongly promote and encourage students to undertake some form of work-based learning, through structured placements, for example.

However, as not all students can, or want to, undertake a placement year for financial or personal reasons, it is important that universities provide additional opportunities to enhance their students' employability and to support them before and after graduation to enter the job market. This could, for example, be achieved through the teaching and practicing of transferable and soft skills in activities undertaken during the academic curriculum or in extra-curricular workshops and programmes. Also, wider and deeper cooperation between HEIs and employers would provide different opportunities to students, such as employer-led employment-focused activities and opportunities, business events, and short-term placements or internships during vacation periods. There are good examples of these types of activities across the sector, but the extent to which they reach those students who would most benefit from them is questionable. This is an area where universities would benefit from targeting efforts at groups who may be less engaged, for whatever reason, with their university experience and therefore less likely to take part in activities that are offered.

4.7 Methodological Approach: Iteration 2

Based on the implementation and analysis of the questionnaire in its first iteration in September 2012, the initial questionnaire was revised before the implementation of a second iteration in September 2013 (see Appendix C.9). The revised questionnaire and the participants of iteration 2 will be described in the following sub-sections.

4.7.1 Revised Questionnaire to Measure Student Expectations of Ancillary Services

In the first section, the questionnaire largely investigated the same variables; two minor changes were, though, introduced. First, owing to the diversity of the sample, 'study course' was not perceived as a statistically useful variable. This is due to the lack of participants for each study course represented in the sample, which hindered statistical analysis. Second, the variable 'disability' was added. While students with disabilities represent a minority, some participants in iteration 1 mentioned concerns related to their disabilities in the final section of the questionnaire. Particularly because students with disabilities often need additional attention and support, this variable was included for iteration 2.

Also, while there is no perfect scale (Adelson and McCoach, 2010; Douglas *et al*., 2006), the scale that was used was revised. The revised questionnaire still used a Likert scale for the measurement of the questionnaire items, however the answer options in the second iteration were labelled: strongly agree; agree; neutral; disagree; and strongly disagree. As many participants in the first iteration did not use the "not applicable" option correctly, this answer option was omitted. The new scale included a clear neutral point in order to reduce response bias and to facilitate the analysis (Douglas *et al*., 2006). Further, the questionnaire items were re-formulated from questions into statements. This aimed to increase ease of use for the participants and reduce confusions or misunderstanding.

The initial questionnaire contained four factors (AOM, FM, LLA and PM) and overall 43 question items. After EFA, one additional factor, namely employability (EM), was identified and the number of items was reduced to 30. These results were used as the basis for the development of a revised questionnaire. The revised questionnaire focused on questions underlying three factors: Student support and welfare (SW) (uniting question items from AOM, FM and PM from the previous questionnaire), Living and Leisure (LL) (adopting the majority of questions previously contained in LLA), and Employability (EM) (questions derived from the literature; CBI/NUS, 2011). Overall, there were 29 questionnaire items within these three factors.

4.7.2 Sampling and Participants (Iteration 2)

The surveys were conducted in the same manner as in iteration 1 (see Section 4.4.4) at Brunel University during the registration period for the academic year 2013/14. After

the exclusion of incomplete or inadequately completed questionnaires, the total number of responses accepted for further analysis was N=268. Table 4.9 summarises the data related to demographic and other identifying characteristics associated with the respondents of the first iteration.

		Female	Male	Total
Gender		125	143	268
Age	18	68	90	158
	19	45	37	82
	20+	12	16	28
Mode of study	Full-time	115	119	234
	Part-time	-	-	-
	Sandwich Programme	10	24	34
Status	International	2	3	5
	EU	9	20	29
	UK	114	120	234
Funding	Self-funded	11	12	23
	Self-funded with loan	90	110	200
	Scholarship/ sponsor	13	18	31
	Both: loan and sponsor	11	3	14
Type of accommodation	Off campus (private)	4	14	18
	Off campus (home/family)	56	65	121
	On campus	65	64	129
Selection	Unconditional firm status	98	108	206
	Insurance choice	14	18	32
	Clearing	13	17	30
Disability	Do not want to disclose	5	3	8
	No	119	133	252
	Yes:	1	7	8
	Dyslexia	-	4	4
	Hearing	1	-	1
	Depression	-	2	2
	Diabetes	-	1	1

TABLE 4.9: PARTICIPANTS' PARAMETERS: ITERATION 2 (2013/14)

In iteration 2, 53.4 per cent of the total participants were males and 46.6 per cent were females. 89.5 per cent of the participants were 18 or 19 years old and 87.3 per cent were enrolled in a full-time, non-sandwich, UG programme. 1.9 per cent of the participants were international students, 10.8 per cent EU students and 87.3 per cent home students from the UK. 48.2 per cent of the participants lived on campus, 45.1 per cent off campus in a family home and only 6.7 per cent lived off campus in private accommodation. As in the previous year, a majority of 74.6 per cent of the participants had taken out a student loan in order to finance their studies; only 8.6 per cent of the participants were fully self-funded. The number of students with scholarships or other sponsoring programmes, as well as partial scholarships increased from 3.7 per cent in 2012/13 to 16.8 per cent. For 76.9 per cent of participants, Brunel was their unconditional firm university choice, for 11.9 per cent it was the insurance choice and

11.2 per cent commenced their studies due to clearing. As some students mentioned disability-related concerns in the final section of the survey in the first iteration, the second iteration included disability as a variable of interest. Only three per cent of the participants disclosed to have some type of disability, with half of those respondents being dyslexic. Another three per cent did not want to disclose whether they had a disability or not. Despite being a minority, it is important for HEIs to recognise the needs of students with disabilities or difficulties of any kind.

4.8 Data and Results: Iteration 2

As in iteration 1, descriptive, as well as univariate and multivariate statistical data analysis was conducted. In the following sub-sections, first, the frequency counts will be briefly presented. Then, the correlations between the questionnaire items and the participants' parameters will be examined. No factor analysis was conducted, as this was done in the first iteration and all questionnaire items stemmed from that initial research or, in case of the new factor, were adopted from an established survey tool identified in the literature (CBI/NUS, 2011). It has to be noted that no participants completed the final section of the survey, investigating additional issues or concerns.

4.8.1 Descriptive Analysis

This sub-section will only provide a broad overview of the key findings by frequency count; a complete overview of all questionnaire items, the frequencies for each response category, as well as basic descriptive statistics can be found in Appendix C.10. After the exclusion of incomplete questionnaires, the total number of responses accepted for further analysis in this second iteration in September 2013 was N=268. The frequency counts showed more distinct results than in the first iteration. This could be due to the changed labelling of the scales (from very concerned – not at all concerned, to strongly agree – strongly disagree). Within the section on student support and welfare, a majority of participants strongly agreed or agreed[3] to the following items (see Table 4.10):

[3] From here on these two categories will be conjointly represented as (strongly) agree.

	Strongly agree (%)	Agree (%)
Individual support from my lecturers is important	50.3	48.5
Good communication with my lecturers is crucial	66.0	32.5
The library should have all the resources I need available	72.4	26.2
Knowing the right contact person for my problems is essential	57.1	39.6
Having a general help desk to resolve my issues or direct me to the right person would be helpful	37.3	52.6
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)	51.5	35.4

TABLE 4.10: FREQUENCIES WITHIN SW (ITERATION 2)

The question investigating expectations of financial support from the university, however, showed variances in responses: only 7.5 per cent of the participants reported that they strongly agreed that the university should not be responsible to support them financially. 31.7 per cent agreed and 43.3 per cent were neutral about this issue. However, 14.6 percent disagreed and 2.9 per cent strongly disagreed, and hence, it can be assumed that these individuals highly expect to be financially supported by their university.

As in iteration 1, the questions regarding a contact person for personal problems and the availability or a psychologist or counselling services was perceived differently by students, even though they measured the same issue. Overall 82.5 per cent (strongly) agreed that it is important to have a contact person available; in comparison 67.5 per cent of students (strongly) agreed that it is important to have a psychologist or counsellor available. 31.7 per cent were neutral about this second issue and two students even disagreed. Regarding academic skills, 55.6 per cent strongly agreed and 40.7 per cent agreed that the university should provide support then students are struggling academically. However, less people would then participate in an extra-curricular course to improve their academic skills: 24.2 per cent strongly agreed and 46.3 per cent agreed that they would participate in such a course, but 25.4 per cent were neutral and 4.1 per cent disagreed to participate in extra-curricular courses to improve academic skills.

Regarding employability, the majority of participants (91.8 per cent) (strongly) agreed that work experience is crucial to find a job after graduation. Accordingly, 57.5 per cent strongly agreed and 31.3 per cent agreed that the university should support students to find a placement/job. Also, 91 per cent (strongly) agreed that employability should be taught at university. 40.3 per cent strongly agreed and 44.4 per cent agreed that it is important to them to interact with like-minded people. Already having decided to participate in HE, it is not surprising that 60 per cent strongly agreed that it is worth going to university. Nevertheless, only 29.5 per cent strongly agreed that they know

what they want to do after graduation; 33.6 per cent were neutral in regards to this and 13 per cent disagreed and, hence, did not know what they want to do after graduation. Also, albeit a minority, six students disagreed that graduates have better chances in the job market, 23.9 per cent were neutral about this and 33.6 per cent strongly agreed that graduates have better chances to find a job. Still, 60.4 per cent (strongly) agreed that they are worried if they will find their desired job after graduation; just 8.6 per cent were not concerned.

Within the factor LL, only 28.7 per cent of the students strongly agreed, but 64.6 per cent agreed that it is important to limit their living expenses. Accordingly, 94.4 per cent of the participants (strongly) agreed that they have to learn how to save money in everyday life. While the majority (strongly) agreed that information about transportation and the surrounding area is important, fewer students were concerned about information regarding the night life on and off campus: only 30.6 per cent strongly agreed with this, 23.9 per cent were neutral about this issue and 3 per cent even disagreed with this statement. However, a majority of 84.7 per cent (strongly) agreed that a wide choice of shops, bars and restaurants on campus is important. Representing the cultural and national diversity of the student population at Brunel, 45.1 per cent (strongly) agreed that they need special food to be served (e.g., for vegans, vegetarians or halal food); 31.3 per cent were neutral about their food choices and 23.5 (strongly) disagreed to the need of special food. The majority of students were interested in engaging in extra-curricular activities (78.7 per cent (strongly) agreed), but 23.2 per cent (strongly) agreed that such activities could have a negative effect on their studies. Another 30.6 per cent were neutral about the impact of extra-curricular activities and 46.3 per cent (strongly) disagreed that there might be a negative impact through the participation in such activities. Participants did not show a clear position as to whether they thought it was difficult to balance leisure time and studies: 31 per cent (strongly) agreed, 41.4 per cent were neutral, and 27.6 per cent (strongly) disagreed. Unsurprisingly, 67.5 per cent strongly agreed and 31.3 per cent agreed that campus safety is important.

4.8.2 Statistical Analysis

In iteration 1, analysing which factors were of highest concerns for students and which participant parameters influence the level of concern was the main objective. As the questions were adapted from the first iteration, the focus in iteration 2 was not on the overall factors, but rather the individual questions. Following many of the procedures

and techniques from the first iteration, this section will merely present the results; for justification and clarification of the interpretation of values refer to the related information in section 4.5.2. Using SPSS, the internal consistency was tested using Cronbach's α coefficient and the normality of data was tested through mathematical calculations and visual inspections. Then, associations and relationships between variables and factors were tested using correlations, independent samples t-test, Mann-Whitney U test, ANOVA and Kruskal-Wallis test.

Internal Consistency and Normality

The reliability of the scale used in the second iteration was measured using Cronbach's alpha (see Table 4.11). As suggested, an alpha value above .5 is accepted; hence, the revised model can be seen reliable, although the value for LL is marginal (Hair *et al*., 2006; Nunnally, 1988).

Factor	Cronbach's Alpha	Number of Items
All items	.783	29
SW	.683	11
EM	.639	8
LL	.536	10

TABLE 4.11: CRONBACH'S ALPHA (ITERATION 2)

The normality of the data was tested through measuring the skewness and kurtosis. As in iteration 1, z-scores were calculated to determine the normality of each questionnaire item. Following the critical z-value of at least ±2.58, it can be said that the factors SW and EM were normally distributed, while LL was skewed to the right (see Table 4.12).

	Skewness			Kurtosis		
	Statistic	Std. Error	z	Statistic	Std. Error	z
SW	.123	.149	0.825	-.511	.297	-1.720
EM	.011	.149	0.073	-.479	.297	-1.612
LL	-.697	.149	-4.677	.301	.297	1.013

TABLE 4.12: SKEWNESS AND KURTOSIS (ITERATION 2)

However, it was further necessary to evaluate the normality of each item (see Appendix C.11.1), as analyses were conducted on an individual question level, rather than a factor level as in iteration 1. The researcher decided to conduct this type of analysis in order to be able to explore the factor EM in more detail. Since a majority of items showed a violation of the assumption of normality (which is expected in large samples, as well as when using ordinal scales), histograms and Q-Q plots were also used to evaluate normality (see Appendix C.11.2). Nevertheless, many items did not show a normal

distribution and parametric techniques had to be used with caution. Thus, equivalent non-parametric tests were conducted to strengthen the confidence in the results.

The following sub-sections will present the results of the parametric and equivalent non-parametric statistical procedures through which the relationships and associations between variables and factors were tested.

Chi-Square Test for Independence

Similar to iteration 1, a chi-square test for independence was performed to examine the relation between each variable and all questionnaire items and to test for the presence of association between variables (see Appendix C.12). The chi-square test is a non-parametric test and more robust to violations of assumptions than, for example, the test of correlations. It is important to note that one critical assumption for a chi-square test is that no cell should have an expected value (count) less than zero and not more than 80 per cent of the cell should have an expected value (count) less than five (Pallant, 2010; Field, 2009). In cases where this assumption was violated, the Likelihood ratio rather than Pearson chi-square had to be measured (Field, 2009). This was particularly critical for the variables age, status and disability as in some categories there were only few participants (e.g., students aged 20 or older, international students and students with disabilities).

To recap, in iteration 1, age, status, and type of accommodation were the variables with the highest number of associations and the strongest relationships. In iteration 2, gender, age, funding, type of accommodation and selection had the highest number of significant associations (see Table 4.13).

	Significant p-value	Cramer's V > 0.17	%
Gender	10	7	70.00
Age	9	3	33.33
Mode of study	2	0	0
Status	4	4	100.00
Funding	10	3	30.00
Type of accommodation	8	7	87.50
Selection	10	6	60.00
Disability	5	2	40.00

TABLE 4.13: INFLUENCE OF PARTICIPANTS' PARAMETERS (ITERATION 2)

However, the picture changed when measuring the strength of the associations (indicated by a Cramér's V value above .17): 70 per cent of all associations between gender and the questionnaire items showed a strong relationship, in comparison to only

33.3 per cent of associations with age. While status only showed an association to four questionnaire items, all of them were strong. Funding seemed to have a stronger impact than in iteration 1, nevertheless, out of the 10 associations only three were strong. Therefore, taking effect size into account, type of accommodation – even though having fewer overall significant associations than funding – had stronger relationships to the items than funding. It can be concluded that similar to the findings from iteration 1, status and type of accommodation were some of the variables with the strongest influence on the items. In addition, gender also had a strong impact.

Independent-Samples t-Test and Mann-Whitney U Test

The following sub-section discusses the use of an independent-samples t-test and, to comply with the statistical assumption of normality of distribution, also the corresponding, non-parametric Mann-Whitney U test.

Gender: An independent-samples t-test was conducted to compare the factor scores between males and females, as well as a Mann-Whitney test for the factors which did not show a normal distribution. As suggested by the results of the chi-square test, gender had a strong impact on many items. As such, the scores for males and females varied in regard to many questionnaire items. The effect size was measured using eta squared (η^2) ((η^2)=.01: small effect; η^2=.059: medium effect; η^2=.138: large effect (Cohen (1988)). Interestingly, most of these items were from the factor employability. For some of the normally distributed data the t-test indicated a significant difference between males and females; for example: "I am worried if I will find my desired job after graduation": Males (M=2.46, SD=.894), females (M=2.13, SD=.783), p = .001, η^2=.04; or "As a student, it is necessary to learn how to save money in everyday life": Males (M=1.69, SD=.608), females (M=1.53, SD=.562), p=.023, η^2=.02. The Mann-Whitney test resulted in very similar outcomes, which increased the confidence in both parametric and non-parametric results (all parametric and non-parametric test results are presented in Appendix C.13.1). Three of the most significant outcomes of the Mann-Whiteny test with p<.001 were: "It is important to have psychologist or counselling services available on campus": males (Mdn=2.00) and females (Mdn=2.00) with U=6699.500, z=-3.784, r=.23; "The university should support me to find a placement/job": males (Mdn=2.00), females (Mdn=1.00), U=6857.500, z=-3.725, r=.23; and "Campus safety is important": males (Mdn=1.00), females (Mdn=1.00), U=6680.000, z=-4.386, r=.26.

Mode of study: Participants were divided into two groups according to their mode of study (group 1: full-time (FT); group 2: sandwich-programme (SP)); no participant in the sample was enrolled as a part-time student. Some statistically significant difference in scores for full-time and sandwich course students were identified and, as with gender, the results from the t-test and the Mann-Whitney test produced very similar results (see Appendix C.13.2). For example, a t-test indicated for "Information about transportation and the surrounding area is important": FT (M=1.67, SD=.592), SP (M=1.44, SD=.561), p = .034, η^2=.02. For the data violating the assumption of normality, the Mann-Whitney test showed a significant difference between full-time and sandwich students for:

- The university should support me when I struggle academically: FT (Mdn=1.00), SP (Mdn=2.00), U=3044.000, z=-2.536, p=.011, r=.15;
- Work experience is crucial for finding a job as a graduate: FT (Mdn=1.00), SP (Mdn=1.00), U=3258.000, z=-1.988, p=.047, r=.12; and
- I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food): FT (Mdn=3.00), SP (Mdn=1.50), U=2969.500, z=-2.476, p=.013, r=.15.

Type of accommodation: Participants were divided into groups depending on their living arrangements (group 1: off campus; group 2: on campus). Due to the low number of participants living off campus in a private accommodation, the two categories covering living off campus were combined for the statistical analysis. There was a significant difference in scores for students living on and off campus for: "It is important to have a contact person to talk to about personal problems" [off (M=1.83, SD=.666), on (M=2.00, SD=.637), p=.039, η^2=.02] and "It is important to limit my living expenses" [off (M=1.85, SD=.551), on (M=1.71, SD=.551), p=.034, η^2=.02]. The Mann-Whitney U test also confirmed a difference between students living on campus in comparison to students living off campus for similar items (see Appendix C.13.3). Table 4.14 shows the results of a Mann-Whitney test for non-normally distributed items.

	U	Z	p	r
Employability skills should be taught at university	6811.500	-3.775	.000	.23
I know exactly what I want to do after graduation	5436.000	-5.800	.000	.35
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	5716.000	-5.315	.000	.32
Campus safety is important	7859.000	-2.146	.032	.13

TABLE 4.14: MANN-WHITNEY U: TYPE OF ACCOMMODATION (ITERATION 2)

Disability: In the second iteration of the survey, participants were asked whether they had any disabilities. Due to the low number of positive responses, it was difficult to undertake any statistical analysis. A Mann-Whitney test did not result in any significant differences, but a t-test showed that there were differences between students with and without disabilities for the following two items: "It is important to limit my living expenses" [no disability (M=1.75, SD=.538), with disability (M=2.25, SD=.4.63), p = .011, η^2=.02] and "Extra-curricular activities can have a negative effect on my studies" [no disability (M=3.30, SD=1.130), with disability (M=4.00, SD=.756), p = .035, η^2=.02] (see Appendix C.13.4).

Analysis of Variance and Kruskal-Wallis Test

Although the ANOVA assumes normal distribution of data, an approximation of normality is sufficient for this test as it is quite robust to violations of normality (Field, 2009). However, ANOVA also assumes the homogeneity of variances; if this assumption is violated (Leven's test p<.05), a Welch Robust test and a Games-Howell post-hoc test (rather than Tukey post-hoc test) have to be conducted (Hair *et al*., 2006). If both assumptions (normality and homogeneity of variances) are violated it is suggested to apply a non-parametric test, the Kruskal-Wallis test (Field, 2009).

Age: A one-way, between-groups ANOVA was conducted to explore the impact of age on the questionnaire items. Participants were divided into three groups according to their age (group 1: 18 years old; group 2: 19 years old; group 3: 20 and above). There was a statistically significant difference at the p<.05 level in various item scores for the three age groups (see Table 4.15) (approximation to normality was assumed; homogeneity of variances was tested and confirmed):

F	18	19	20+	p	η^2	Post-hoc
I would participate in extra-curricular courses to improve my English/ Maths/ academic skills						
F(2, 265)=5.06	M=2.22, SD=.795	M=1.93, SD=.782	M=1.86, SD=.848	.007	.04	18 – 19: p=.019
Information about the night life on and off campus is important						
F (2, 265)=4.43	M=1.63, SD=.612	M=1.57, SD=.545	M=1.64, SD=.621	.024	.03	18 – 20+: p=.010
A wide choice of shops, bars, restaurants and canteen on campus is important						
F(2, 265)=3.78	M=1.63, SD=.612	M=1.57, SD=.545	M=1.64, SD=.621	.024	.03	18 – 20+: p=.027
I am interested in engaging in extra-curricular activities						
F(2, 265)=3.83	M=1.68, SD=.716	M=1.96, SD=.881	M=1.86, SD=.756	.023	.03	18 – 19: p=.019
It is difficult to balance leisure time and studies						
F(2, 265)=3.65	M=3.04, SD=.944	M=2.68, SD=.954	M=2.93, SD=1.120	.027	.03	18 – 19: p=.020

TABLE 4.15: ANOVA: AGE (ITERATION 2)

The item "campus safety is important" showed violation of the assumption of homogeneity; therefore, Welch ANOVA and Games-Howell post-hoc were measured: [$F(2, 265)=3.27$, $p=.033$, $\eta^2=.02$] with group 1 ($M=1.40$, $SD=.529$) differing significantly from group 2 ($M=1.23$, $SD=.425$) ($p=.023$) but not from group 3 ($M=1.29$, $SD=.460$).

A Kruskal-Wallis test was conducted to confirm that the violation of the assumption of normality did not crucially impact on the outcomes and it could be confirmed that this test resulted in similar outcomes as the ANOVA (see Appendix C.14.1).

Status: Participants were divided into three groups according to their status (group 1: international students; group 2: home student (UK); group 3: EU student). Through ANOVA it was tested that status influences the statement "Work experience is crucial for finding a job as a graduate": [$F(2, 265)=3.83$, $p=.023$, $\eta^2=.03$]; a Tukey HSD post-hoc test showed that group 2 ($M=1.43$, $SD=.633$) and group 3 ($M=1.76$, $SD=.689$) differed significantly from each other ($p=.026$); there was no significant difference to group 1 ($M=1.20$, $SD=.447$). A Welch test was performed as some items showed a significant Leven's value but only one significant result was found and some items showed zero variances, which prevented the performance of a Welch test. The Welch test showed a significant difference for "It is worth going to university" [$F(2, 265)=6.70$, $p=.001$, $\eta^2=.05$]; the Games-Howell post-hoc test showed that there was a significant difference between group 2 ($M=1.46$, $SD=.649$) and group 3 ($M=1.93$, $SD=.884$) ($p=.023$) but not between group 3 ($M=1.80$, $SD=.837$). A Kruskal-Wallis test was also conducted and this confirmed that there was a statistically significant difference in those two item scores between the different status groups (see Appendix C.14.2).

Funding: Participants were divided into four groups: group 1: self-funded with loan (SFwL); group 2: scholarship/sponsor (S/S); group 3: self-funded (SF); and group 4: loan and scholarship (L/S). As the chi-square test already indicated, and in contrast to iteration 1, funding impacted on participants' responses. Through ANOVA and Welch ANOVA, 13 items were identified in which the different funding groups significantly differ in their responses (see Table 4.16).

F	SFwL	S/S	SF	L/S	p	η^2	Post-hoc
Individual support from my lecturers is important							
F(3, 264)= 4.338	M=1.55 SD=.529	M=1.29 SD=.461	M=1.65 SD=.487	M=1.21 SD=.426	.004	.05	SF – L/S: p=.035 SFwL – S/S: p=.037 SF – S/S: p=.040
Good communication with my lecturers is crucial							
F(3, 264)= 5.542	M=1.36 SD=.500	M=1.19 SD=.402	M=1.70 SD=.635	M=1.14 SD=.363	.005	.06	SF – L/S: p=.010 SF – SS: p=.011
Having a general help desk to resolve my issues or direct me to the right person would be helpful							
F(3, 264)= 3.732	M=1.75 SD=.642	M=1.58 SD=.620	M=2.00 SD=.522	M=1.36 SD=.497	.004	.04	SF – L/S: p=.004 SF – SS: p=.046
I do not expect the university to support me financially							
F(3, 264)= 3.613	M=2.75 SD=.878	M=2.81 SD=.946	M=2.26 SD=.915	M=3.21 SD=.893	.014	.04	SF – L/S: p=.009
It is important to have psychologist or counselling services available on campus							
F(3, 264)= 3.466	M=2.09 SD=.755	M=2.13 SD=.806	M=2.39 SD=.656	M=1.57 SD=.756	.017	.04	SF – L/S: p=.008
Work experience is crucial for finding a job as a graduate							
F(3, 264)= 2.006	M=1.48 SD=.649	M=1.39 SD=.615	M=1.65 SD=.714	M=1.14 SD=.363	.015	.02	SFwL – L/S: p=.028 SF – L/S: p=.034
Employability skills should be taught at university							
F(3, 264)= 2.253	M=1.65 SD=.640	M=1.55 SD=.568	M=1.70 SD=.822	M=1.21 SD=.426	.011	.03	SFwL – L/S: p=.011
It is worth going to university							
F(3, 264)= 2.490	M=1.57 SD=.726	M=1.23 SD=.497	M=1.52 SD=.665	M=1.36 SD=.497	.015	.03	SFwL – S/S: p=.008
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)							
F(3, 264)= 1.965	M=1.63 SD=.705	M=1.61 SD=.844	M=1.78 SD=.600	M=1.21 SD=.426	.009	.02	SF – L/S: p=.010 SFwL – L/S: p=.018
A wide choice of shops, bars, restaurants and canteen on campus is important							
F(3, 264)= 2.922	M=1.71 SD=.684	M=1.94 SD=.854	M=2.00 SD=.674	M=1.43 SD=.514	.028	.03	SF – L/S: p=.031
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)							
F(3, 264)= 7.982	M=2.72 SD=1.261	M=1.68 SD=1.045	M=2.48 SD=1.163	M=1.86 SD=1.231	.000	.09	SFwL – S/S: p<.001
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)							
F(3, 264)= 3.757	M=1.83 SD=.803	M=1.55 SD=.768	M=2.00 SD=.603	M=1.29 SD=.469	.001	.04	SF – L/S: p=.002 SFwL – L/S: p=.004
Campus safety is important							
F(3, 264)= 1.469	M=1.35 SD=.487	M=1.39 SD=.615	M=1.35 SD=.487	M=1.07 SD=.267	.012	.02	SFwL – L/S: p=.013

TABLE 4.16: ANOVA AND WELCH-ANOVA: FUNDING (ITERATION 2)

Post-hoc comparison showed that the highest number of differences occurred between participants who funded their studies themselves without a student loan and participants who either had a scholarship or sponsor or both, a loan and a partial scholarship. Further, a Kruskal-Wallis test identified the same significant differences in groups as ANOVA, which increased the confidence to use ANOVA even when only an approximation to normality was reached (see Appendix C.14.3).

Selection: Participants were divided into three groups according to their selection status (group 1: unconditional firm status (UFS); group 2: insurance choice (IC); group 3:

clearing (C)). Several significant differences in group scores were identified through ANOVA and Welch-ANOVA (see Table 4.17).

F	UFS	IS	C	p	η²	Post-hoc
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)						
F(2, 265)=3.960	M=1.56 SD=.651	M=1.69 SD=.896	M=1.93 SD=.785	.048	.03	UFS – C: p=.045
It is important to have a contact person to talk to about personal problems (e.g. bullying, addiction, stress)						
F(2, 265)=3.158	M=1.95 SD=.657	M=1.97 SD=.695	M=1.63 SD=.556	.044	.02	UFS – C: p=.038
Work experience is crucial for finding a job as a graduate						
F(2, 265)=5.358	M=1.40 SD=.583	M=1.52 SD=.761	M=1.80 SD=.805	.035	.04	UFS – C: p=.035
It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)						
F(2, 265)=4.076	M=1.72 SD=.682	M=2.06 SD=.840	M=1.60 SD=.621	.018	.03	UFS – IC: p=.029 IC – C: p=.025
As a student, it is necessary to learn how to save money in everyday life						
F(2, 265)=4.346	M=1.59 SD=.575	M=1.50 SD=.508	M=1.90 SD=.712	.014	.03	UFS – C: p=.020 IC – C: p=.020
A wide choice of shops, bars, restaurants and canteen on campus is important						
F(2, 265)=3.875	M=1.69 SD=.697	M=2.06 SD=.759	M=1.77 SD=.626	.022	.03	UFS – IC: p=.016
Extra-curricular activities can have a negative effect on my studies						
F(2, 265)=6.059	M=3.31 SD=1.090	M=3.78 SD=1.070	M=2.80 SD=1.130	.003	.05	IC – C: p=.002

TABLE 4.17: ANOVA AND WELCH-ANOVA: SELECTION (ITERATION 2)

Post-hoc comparison through identified significant differences between students who enrolled at the university as unconditional firm status and students who received a study place through clearing or selected the university as their insurance choice. Again, the Kruskal-Wallis test confirmed the findings from ANOVA and Welch-ANOVA and increased the confidence in the results (see Appendix C.14.4).

4.9 Discussion and Recommendations: Iteration 2

As discussed, iteration 2 of this survey aimed to further explore student expectation in relation to personal and situational factors. Hence, while this overall study aimed to add to previous research by analysing the influence of such additional variables, the second iteration focused on individual questionnaire items rather than overall factors. Further, expectations in relation to employability have been explored in more detail. The following sub-sections discuss the evaluation of the key findings of the second iteration and provide recommendations related to the identified issues.

It should be noted that mode of study, status and disability have not been shown to highly influence participants' responses. However, this could be due to the low number of participants in certain groups within these variables as this impacted on the statistical analysis.

4.9.1 Older Students Living off Campus are Concerned about Support Services; Younger Students Living on Campus are Concerned about Campus Life

Type of accommodation was again identified as a variable with high impact on participants' responses. However, as the survey did not investigate as many issues in relation to living and accommodation as in the first iteration, the results were not as clear. Analysing the mean-values and mean-ranks, it can be said that students living off campus were more concerned about support services, agreeing to a higher degree to statements such as "it is important to have a contact person to talk about personal problems" or "I would participate in extra-curricular courses to improve my English/ Math/ academic skills". Students living on campus, on the other hand, were more concerned about issues directly related to living on campus and finances, as reflected in their responses to statements such as "campus safety is important" and "it is important to limit my living expenses".

The chi-square test for independence indicated a significant association between type of accommodation and age, $\chi^2(4, N=268)=26.049$, $p<.001$. Therefore, it could be observed that older students and students living off campus had similar concerns (e.g. older students agreed that they would attend an extra-curricular course to improve their skills while younger student were less affirmative in regards to this statement). Participants aged 18 were also less concerned about campus safety in comparison to their older peers or students living on campus. Younger students agreed to a higher level that information about the night life on and off campus is important and that a wide choice of shops and restaurants on campus is important. Younger participants also confirmed their interest in participating in extra-curricular activities, while older students worried more whether it might be difficult to balance leisure time and study.

As already suggested based on the results of the first iteration, it is important to provide support and networking systems, targeted to students with specific needs. It has been identified that students of different ages, cultural backgrounds, as well as type of accommodation have different expectations, needs and concerns (Astin and Antonio, 2012). Therefore, it is necessary to provide targeted information and services rather than attempting to cater to students on a cohort-basis. Hence, the data resulting from the second iteration supports the recommendation of introducing buddy-programmes or peer-mentoring system, where broad backgrounds are matched and students are supported in the areas where they need it most.

4.9.2 Funding Influences the Decision to Participate in HE but not Expectations

As indicated through the chi-square test for independence, in this iteration, funding impacted on participant's responses. However, the measurement of Cramér's V showed that most of the indicated associations were not very strong. Also ANOVA showed that there were differences between the different funding groups. Comparing the mean-scores and based on the post-hoc test, generally students who had both a loan and a partial scholarship differed most significantly to students who were self-funded. Students with a loan and scholarship aligned to a higher degree with most of the given statements than students who were fully self-funded. Students who had a student loan showed similar responses as students who were self-funded. However, the differences in mean values were rather low, which can be seen as an indicator that students have high expectations regardless of their funding mode. It can be argued that it is not important how students pay for their degree, but rather how much. Therefore, expectations are influenced by the notion of value-for-money and not as much by student's financial possibilities.

Interesting statements under the variable of funding were statements such as "I do not expect the university to support me financially": fully self-funded students (M=2.26, SD=.915) agreed with this statement to a higher degree than any of the other funding groups; students with a loan and scholarship (M=3.21, SD=.893) disagreed most with this statement (p=.009). Interestingly, participants who took out a student loan (M=1.57, SD=.726) agreed to a lower degree than students with scholarships that it is worth going to university (M=1.23, SD=.497) (p=.008). This shows that funding and the need to obtain a student loan can influence perceptions of HE (Wilkins *et al*., 2013; Moore *et al*., 2011). In the run up to the 2015 general election, UK politicians from one party used the suggestion of reducing tuition fees in England to £6,000 as a promise to seek to win voters. This clearly shows that the topic of funding and finance in HE continues to be a highly debated issue. Therefore, universities have to adapt to student needs and provide clear and unambiguous information about student loans and alternative funding options. Also, universities have to encourage and support students to apply for scholarship and bursary programmes offered by the institutions, the government and other profit and non-profit organisations. Universities could attract potential students if they manage to support and guide them in the funding question.

4.9.3 Employability is Highly Influenced by a Range of Variables

A chi-square test showed that there was a relationship between all variables and the new factor employability; most of all between employability and gender, age and type of accommodation. This shows that employability is an important topic for all students, regardless of personal and demographic differences. The different groups within the variables age and disability did not differ significantly.

However, a t-test showed that gender has a significant association to 10 of the questionnaire items; surprisingly out of those, seven were within the factor employability. Females were more affirmative towards all statements within employability, indicated by a lower mean-score than males. The only exception was the statement "I know exactly what I want to do after graduation", where males had a lower mean-score.

Students who were enrolled full-time differed from students enrolled in a sandwich-programme. Students in the sandwich programme agreed to a higher degree that work experience is crucial for finding a job, while full-time students agreed more that graduates have better chances in the job market. Nevertheless, HEIs should encourage students to participate in placements and internship throughout their studies in order to provide them with work experience and improve their employability (Brooks, 2012; Dearing, 1997). Students who do not want to or cannot participate in a sandwich programme should be given alternative opportunities to collect valuable experience.

Students living on and off campus significantly differed in two statements regarding employability. Students living off campus (M=1.48, SD=.644) agreed to a higher level than students living on campus (M=1.77, SD=.618) that employability skills should be taught at university ($p<.001$). This reflects to the point made earlier suggesting that students living off campus expect more support services. On the other side, students living off campus (M=1.95, SD=1.064) agreed more that they know what they want to do after graduation than students living on campus (M=2.71, SD=.911) ($p<.001$). This is closely related to the fact that students living off campus in their first year are also often mature students who have previous work experience or already completed a degree and, hence, are more certain about their career wishes.

While it was difficult to make statistical assumptions for the variable 'status' due to the low number of international participants, there was a significant relationship to some of

the items. Based on ANOVA and post-hoc test, it is suggested that students from the UK and the EU showed the highest difference in comparison to international students. For example, participants from the UK considered work experience more important than students from the EU and UK students agreed to a higher degree that it is worth going to university.

There was a significant difference between funding groups in relation to three items of the employability factor: “work experience is crucial for finding a job as a graduate”; “employability skills should be taught at university”; and “it is worth going to university”. In all three cases, students with a loan and scholarship agreed to a higher degree than students with a loan or self-funded students. It is difficult to interpret these findings without additional information on the participants’ motivation to attend university.

The impact of so many variables on the different employability items clearly shows the need for HEIs to comply with student expectations in this regard. HEIs have to approach this issue in two ways: first, they have to increase the awareness amongst students about employability and employability skills; and, second, HEIs have to provide opportunities for students to apply the studied material in a real-life context to gather experience. As suggested based on the outcomes of iteration 1, this can be done through work-based learning, structured placements, teaching of transferable skills, employability skills-related workshops and programmes, and increased cooperation with employers. The topic of employability and skills development will be further investigated and discussed throughout this thesis.

4.10 Conclusions and Contributions

This study suggests that surveying newly-arriving students in HE can help HEIs to understand student expectations and concerns from the outset of their university experience. This knowledge can then be applied by HEIs and their different academic and professional departments to manage those expectations through carefully designed communication strategies and programmes and, consequently, to directly influence the satisfaction of students. Further, study 1 has investigated issues of significant concern for the students sampled; with access to such evidence, universities can respond to these concerns, and be more likely to increase the quality and support in highlighted areas and, again, improve student satisfaction as a result.

With the development of a mass-education system, the increasing diversity of the student body, and the increase of tuition fees, services and support for students should be holistic and embrace academic and non-academic aspects of the university experience (Morgan, 2012; Douglas *et al*., 2008). Above all, through the diversification of HE, the student body has changed over the years and includes now an increased number of students who require specific help; for example, students with disabilities and learning needs; international students with language difficulties who also might need accommodation and advice on immigration and visa laws; students with loans who require financial advice; mature students or students from lower socioeconomic backgrounds who might have to acquire additional study skills.

The research shows that students cannot be treated on a cohort level but that it is the university's responsibility to cater for individual student needs, especially when recruiting students from non-traditional backgrounds (BIS, 2011). This is of particular importance as research has shown that the provision of ancillary and support services to students can not only positively impact on quality and satisfaction, but non-academic support can also help students to succeed academically and reduce drop-out rates (Morgan, 2012).

Following Oliver's expectancy-disconfirmation paradigm and Hill's gap theory, the key challenge is to understand concerns and expectations with the aim of actively managing satisfaction and quality perception on an individual and group level in order to increase satisfaction rates. For this, it is crucial to understand the various factors that influence student expectations and to measure and manage expectations from an early point in order to provide adequate information and support to students and to influence service quality and satisfaction. As a result, it would be advisable to undertake standardised and regular research with commencing students in order to understand and manage their expectations.

The research reported in this chapter has built on the existing literature and contributed by: first, using a survey tool initiated by students rather than organisations themselves; second, by expanding the existing research within an under-investigated and difficult-to-approach population (commencing students before they have directly experienced HE services); and third, by taking additional factors and variables into account (such as funding scheme, status and selection) while simultaneously considering the current changes in the HE sector.

While in the first iteration, age, status and type of accommodation were found to be the variables with the highest impact on the observed factors, surprisingly, and contrary to many predictions in the literature (Browne, 2010; Gruber *et al*., 2010; Appleton-Knapp and Krentler, 2006), funding, or more specifically the holding of a student loan, did not seem to significantly impact student perspectives. Overall, it has been observed that young, UK students living off-campus represent the population with the highest levels of concern, suggesting that their expectations therefore have to be managed most carefully.

In the second iteration, gender, funding, type of accommodation and selection were identified as the variables with the highest impact on the individual questionnaire items. The data presented showed that older students living off campus were more concerned about general support services, while younger students living on campus were concerned about social aspects and campus life. Also, while funding was observed to be a variable with impact, it seems that it is only influential for the initial decision-making but does not critically influence expectations and concerns. Employability was identified as a key issue for the majority of the students, regardless of their demographics or other identified characteristics. Overall, the varying outcomes of the implemented questionnaires showed that, specifically in a campus-based university targeted towards an international and diverse student body, it is essential to acknowledge individual differences and to tailor services to individual needs rather than offering uniform services which cannot satisfy individuals.

As an outcome, various solutions have been recommended, such as: the provision of buddy and/or mentoring programmes; the provision of specialised information leaflets; the re-branding of counselling services; and the organisation of special events and workshops for the target group which will focus on one or more of the identified issues. Further, employability was identified as an emerging concern for commencing students and perceptions in regards to employability are influences by many variables. It is suggested to HEIs to support graduate employability outcomes, rather than focusing purely on academic outcomes, to comply to the expectations of students, employers and society in general. To provide further and more detailed recommendation on how this can be achieved, this initial stage of the research was used as motivator to continue the research within the field of student employability and to explore the topic from a student perspective.

4.11 Chapter Summary

The introduction of up to £9,000 annual undergraduate tuition fees in parts of the UK is likely to impact student perceptions, their decision-making behaviour and their expectations in relation to HE. Consequently, it is important for HEIs to understand how students select potential HEIs and to be aware of students' expectations regarding all aspects of the university experience, specifically since expectations are directly related to the concepts of quality and satisfaction. In this context, several gaps in the literature have been identified: first, a lack of research regarding ancillary services in HE; second, a lack of investigation of expectations before the actual experience takes place; third, lack of research of commencing students; and finally, a lack of research from a student rather than organisational perspective.

To address the identified gaps, this study used a student-initiated questionnaire to explore the expectations of commencing students arriving at Brunel University, London, before they actually experienced HE services. The study aimed to understand the factors which influence students' initial concerns and expectations of ancillary services before they have actually experienced the HEI services and to identify the service areas about which students are most concerned. Several participant parameters, for example, gender, age, status and type of accommodation have been identified as variables with high impact on student concerns and expectations. Consequently, it was recommended to design support and ancillary services which can respond to individual needs, such as the provision of buddy and/or mentoring programmes; the provision of specialised information leaflets; and the organisation of special events and workshops for specific issues.

Most importantly, employability was identified as an emerging concern for students. The literature confirms that, particularly with the introduction of increased tuition fees, graduate employability is increasingly desired by students, employers and the wider society. To further explore the topic of employability, the second stage of the research aims to investigate employability from a student perspective.

CHAPTER 5:
Study 2: Student Employability – 'Ready for Work, Ready for Life'

5.1 Introduction

The initial exploratory study (discussed in Chapter 4), identified employability as an emerging concern for commencing students at English universities. Perhaps heightened by the increase of tuition fees, students now have increased expectations of being readily employable graduates when leaving HE and hope to quickly find a suitable job to begin paying off their debts from student and maintenance loans (BIS, 2011). At the same time, the high number of Home/EU and international graduates, and otherwise qualified candidates, mean that employers increasingly focus on additional skills during the employment process rather than only academic skills and an appropriate degree. Finally, the shift from a manufacturing-based to a skill- and knowledge-based economy makes skills one of the most relevant resources for economic productivity. These points demonstrate changing expectations with respect to employability from all affected key stakeholders (Green *et al*., 2009). Therefore, study 2 will consider issues relevant to graduate employability, focusing on the student point-of-view in this context.

In spite of rising HE tuition fees in England, the number of graduates applying for a position in the labour market has consistently increased, and about 300,000 graduates enter the 'market' each year (AGR, 2013; HESA, 2012). As the number of vacancies offered by graduate recruiters to some extent mirrors the number of graduates, the graduate employment market remains highly competitive. Hence, while unemployment rates for graduates decreased significantly over the last years to 7.3 per cent in 2013, they have still not fallen back to pre-recession levels (HESA, 2015) (other sources such as the BBC, The Guardian or The Times argue that these numbers do not accurately reflect the reality of the situation). In this competitive 'marketplace', with up to 160 applicants per position in some industries (High Fliers Research, 2012), a university degree alone is not necessarily sufficient to be competitive and employable. Employers are not only demanding technical and work-related skills, but are focusing more and more on employability or soft skills. Research has shown that 82 per cent of graduate

employers stated that employability skills were the most important factor when considering a candidate for a position (CBI/NUS, 2011).

The importance of HEIs for the development of these skills has been widely recognised and it has further been suggested that these skills can be obtained by either a sandwich placement or through systematic teaching of skills. In 1997, the Dearing Report identified work experience as a crucial element of the development of an UG's employability (Dearing, 1997) and the advantages of sandwich placements have frequently been researched (Brooks, 2012; Mason *et al.*, 2009). However, the popularity of placements during the university course is declining nationally and many students cannot afford, or choose not, to invest in a formal placement (Andrews and Higson, 2008). Therefore, HEIs have to find alternative opportunities to prepare students and to help them to develop relevant skills. One approach taken by universities is to offer employability programmes, either within or outside the academic curriculum.

Study 2 focused on such an employability programme, recently implemented at Brunel University London. The study aimed to investigate the motives and motivations of students to participate in this non-credit bearing programme, to explore the expectations of students regarding such a programme, and to evaluate the satisfaction of students after its completion. As such, this research was initially designed to explore student views to analyse the structural and management aspects of the programme. However, as will be highlighted throughout the data analysis and discussion, confidence emerged as a key issue in this context. This will ultimately lead to the motivation for the final study (presented in Chapter 6) exploring the role of confidence within employability.

The remainder of this chapter is structured as follows. First, theoretical background will be provided in Section 5.2 through an analysis of relevant research in the areas of employability, employability skills and employability skills development – in general and within the context of HE. Then, the aim and objectives of the study will be clarified in Section 5.3. The method section (Section 5.4) will describe the employability programme which was used as the basis for the research and consider the tools and techniques applied to achieve the research aim. Pre- and post-experience questionnaires using closed and open-ended questions were identified as a suitable instrument type for the data collection in this study. Further, the sample of participants who took part in the research will be introduced. Section 5.5 and 5.6 will present the data gathered through the two rounds of data collection, before and after the programme. In Section 5.7 the

outcomes of the research will be discussed and suggestions will be made on how to enhance graduate employability from a student perspective. Then, in Section 5.8 conclusions will be drawn and the contributions of this study will be highlighted. Finally, a brief summary of this chapter will be provided in Section 5.9.

5.2 Graduate Employability and HE

A key challenge in the HE sector is the pressure on universities from government, employers and society to produce knowledge workers with specialised industry and business skills, as well as employability skills, rather than producing merely educated individuals (Green *et al*., 2009; Willmott, 2003). Thus, the function of education has shifted and it could be argued that the main aim is to generate graduates who meet the requirements and needs of the labour market (Cai, 2013). To provide the theoretical background to the study reported in this chapter, the following sub-sections will define employability and employability skills, discuss the role and responsibility of HEIs to develop employable graduates and provide an overview of employers' and students' perspectives in this context.

5.2.1 Employability and Employability Skills

There is no clear, uniform definition of employability in the literature[4] and the main challenge in defining employability is the so-called duality of the term (Brown *et al*., 2003). The duality of employability refers to its two dimensions, namely the absolute and the relative. While the absolute view takes the capabilities of an individual into account, such as skills and knowledge, the relative dimension views employability based on economic conditions of supply and demand, taking into considerations labour and job shortages and surpluses.

From this perspective, Brown *et al*. (2003) define employability as "the relative chances of acquiring and maintaining different kinds of employment" (p. 111); but there is no coherent characterisation of employability (Cai, 2013; Tymon, 2013; Bridgstock, 2009; Green *et al*., 2009; Andrews and Hogson, 2008; Pool and Sewell, 2007; Fugate *et al*., 2004). Defining employability in terms of managing to successfully obtain a position is difficult though, as it then highly depends on labour market conditions.

[4] For an extended review of definitions see, for example, Brooks (2012) or Harvey (2001).

Taking a different perspective, Hefce (2003) relates employability directly to the experience of work-based learning obtained through placements and internships. Yorke and Knight's (2006) model of employability conceptualises employability as understanding; skills; efficacy beliefs; and metacognition (USEM). Fugate *et al*. (2004), though, argue that employability does not assure employment but only increases the likelihood of employment, relating the term to person-centred factors, such as career identity, personal adaptability and social and human capital. The varying conceptualisations and definitions of employability illustrate the complexity of this term. Nevertheless, the literature recognises a set of key employability skills, also called transferable skills, core skills, soft skills, key competencies, graduate skills or generic graduate attributes (GGA)[5].

These skills or attributes are the skills, knowledge and capabilities of graduates outside their discipline-specific technical knowledge (Barrie, 2007). The frequently referenced definition by Bowden *et al*. (2000) describes graduate attributes as "the qualities, skills and understandings a university community agrees its students would desirably develop during their time at the institution and, consequently, shape the contribution they are able to make to their profession and as a citizen"[6]. Based on this definition, skills can be divided into two main categories: ones supporting the graduate to become a valued member of society, and ones related to a graduate's ability to obtain and maintain employment and support economic growth in the long-term (Bridgstock, 2009). This can be expanded to a third category, namely academic attributes, as many students might consider pursuing another degree or a career in academia and research (McCabe, 2010). Figure 5.1 indicates how graduate attributes can impact many aspects of a graduate's life, such as academic, work and career, and society and community.

[5] These terms will be used interchangeably throughout this thesis and all refer to the skills needed to obtain and maintain a job and advance in one's career.
[6] This reference is no longer available, but Bowden's definition has been frequently cited in, for example, Bridgstock (2009), Barrie (2007, 2004).

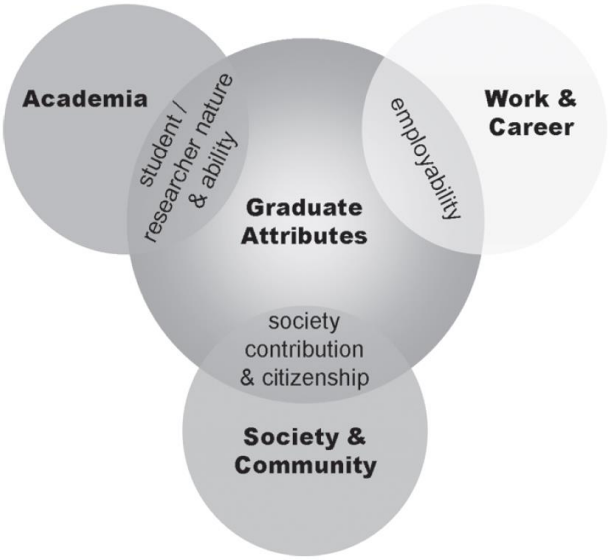

FIGURE 5.1: GRADUATE ATTRIBUTES (MCCABE, 2010)

While there are generally accepted key skills, crucial for the conceptualisation of graduate employability, each HEI usually has its own set of employability skills which they deem relevant and there is not one agreed set of skills that is valid on a national or global scale. It has been widely acknowledged, though, that all graduates should acquire GGAs during their study experience and possess them after successfully completing an UG degree in any field. Some of the attributes that are frequently encountered in universities' lists of employability skills are written and oral communication skills, presentation skills, team-working skills, time-management, and organisational and planning skills (Mason *et al*., 2009; Tomlinson, 2008; Harvey *et al*., 1997). Despite the different definitions of employability and varying views on which skills and attributes comprise employability skills, the importance of possessing these skills is undeniable in today's labour market. Therefore, the following sub-sections will discuss the different key stakeholders' views on employability.

5.2.2 HE and Employment: the Role and Responsibilities of HEIs

The literature investigating the relationship between education, employment and the labour market can generally be divided into two broad perspectives, focusing either on the concept of human capital or screening and signalling models (Cai, 2013; Bridgstock, 2009; Fugate *et al*., 2004; Brown *et al*., 2003; Riley, 1979). Both perspectives have supporters and critics in the literature. Within HE, emphasis is frequently placed on whether graduates can obtain a graduate job and if the economic returns (i.e. life-time earnings) justify the initial investment in tuition fees. This can be related to human capital theory which suggests that the productivity of an employee can be elevated

through education or training and the acquisition of knowledge and skills (Schultz, 1961). This will then lead to higher productivity, a higher income for the employee as an individual, and a gain for society overall. Hence, human capitalism views knowledge and skills as capital.

The screening model on the other hand, views employability in light of the information asymmetry between parties and the process of balancing this asymmetry; this model is often used in the hiring process. It is important to distinguish screening from signalling, which suggests that the informed party moves first. Hence, the job-market signalling model (Spence, 1973) is of particular importance in the context of education and employment, as the potential employee signals his/her level of knowledge and skills to an employer.

In the context of employability, information is not only important for potential employers but also for students and HEIs. On the one hand, HEIs have to understand employer needs in order to equip students with the necessary skills; on the other hand, students frequently use employability outcomes recorded in league tables to choose potential HEIs. Since the 1990s, graduate employment has been used as a measure of the quality and success of HE and HEIs. One such tool of measurement is the Destination of Leavers from Higher Education (DLHE) survey, which is implemented annually to investigate the employment status of students six months after graduation. The DLHE is often criticised owing to its low response rate, the prompt enquiry period after just six months, and its focus on specific regions and careers (Brooks, 2012; Bridgstock, 2009; Mason *et al*., 2009; Harvey, 2001). The main misunderstanding with the DLHE is the fact that employability is equated with obtaining a full-time occupation and, hence, leads to the measurement of employability as an "*institutional* achievement rather than the propensity of the *individual* student to get employment" (Harvey, 2001, p. 97). Nevertheless, the ambiguous outcomes from the DLHE survey often result in employability league tables on which students, parents and future employers base their decisions. So, to meet the expectations of students and employers and to increase the likelihood of higher DLHE rankings, HEIs should support their graduates in attaining high-level employment and equip them with the necessary skills to do so.

A favourable way to achieve this is through sandwich courses and placements during the degree programme, especially since employers are increasingly looking for graduates with prior work experiences. However, participation in sandwich programmes

is declining (Brooks, 2012; BIS, 2011) and not all students choose to participate in a sandwich programme or to work while obtaining their degree. Therefore, the responsibility of HEIs is to equip also – or even particularly – those students with the necessary skill set. For this purpose, BIS suggests that HEIs improve their relationships with businesses and other organisations in order to improve teaching, promote sponsorship provided by organisations, and to enhance research, innovation and enterprise. Thus, to enhance student employability for the benefit of all key stakeholders, the relationship between HEIs, students and employers has to be strengthened through the continuous exchange of relevant information and the promotion of collaborations and partnerships. To achieve this, it is crucial to understand how employers perceive employability, which skills and abilities they desire from graduates, and how perceptions of employability influence recruitment decisions. This will be discussed in the following sub-section.

5.2.3 Employability – the Employers' View

An important aspect of employability is how employers perceive the qualities of potential candidates. As discussed before, the signalling model has often been used as a theoretical basis of analysing the relationship between education and employment and over the years authors have used Spence's original model to expand and adapt it (e.g., Cai, 2013; Bailly, 2008; Altonji and Pierret, 2001). For instance, Bailly (2008) developed a model, indicating the transformation of an employer's belief after the hiring of the candidate regarding a candidate's skills and capabilities through learning. Cai (2013) built onto this model, incorporating institutional theory and developing a framework which guides the understanding of what employers think when assessing potential candidates. Institutionalism refers to the idea that the behaviour of an individual is influenced by institutions, whereby institutions could be social orders or rules, shared values, norms and beliefs inherent in the individual's organisations (DiMaggio and Powell, 1983).

Including new institutional theory, Cai's (2013) framework indicates that an employer's initial beliefs are guided by exogenous factors, as well as institutional factors. This will lead to an initial recruitment decision, which will then be verified through the candidate's performance and learning, through which the employer will understand the true value of the candidate. While Cai's model is still rather generic, it takes into account various concepts and theories and provides a basis for the understanding of

employers' perceptions of graduate capabilities. This can guide a university to develop its key set of GGAs and shape the understanding of how students can acquire these skills and attributes. Further, it can help HEIs to influence employers' beliefs and support graduates to obtain and maintain a career.

Research has shown that employers still perceive a lack of employment-relevant skills in graduates (Brooks, 2012; CBI/NUS, 2011; Browne, 2010) and value candidates with previous work experience obtained through participation in a sandwich course or other placements (BIS, 2011; Mason *et al*., 2009; Harvey *et al*., 1997). However, one reason that the popularity of sandwich programmes is declining amongst students is the fact that employers are not investing time, effort and resources to create an adequate placement experience and students, therefore, do not perceive such placements as beneficial (BIS, 2011). Thus, employers have to assume responsibility for providing satisfactory placement opportunities for students in order to subsequently benefit from trained and skilled graduate candidates. Research undertaken for the Council for Industry and Higher Education (CIHE) stresses the importance of collaborations between employers and HEIs in order to communicate employers' needs, HEIs possibilities and to agree on how to develop beneficial outcomes for both parties, as well as students (Connor and Hirsh, 2008). Therefore, in order to develop strong and beneficial relationships between employers and HEIs, it is also important to understand the students' stance on employability. This will be further discussed in the following sub-section.

5.2.4 A Student Perspective on Employability

With policy makers and the government often justifying increasing tuition fees with arguments associated with long-term personal and economic benefits for individuals (Tomlinson, 2008), the obvious questions since the introduction of fees up to £9,000 are whether this is still evident and whether students have become more demanding with respect to these claimed benefits.

With the increase of tuition fees and the developing tendency of consumerism in HE, students are increasingly expecting a high-quality learning experience which will not only provide them with a degree, but also equip them with the skills required in today's knowledge economy and lead to employment. According to a study by BIS (2011), students indicated that their main reasons to study are because it is part of their career plan and it will enable them to get a job. These two reasons exceeded the motivation to

study because of particular interest in a subject or course. Hence, given the importance of future job opportunities and career plans to students, HEIs now have to respond to these expectations and sufficiently prepare graduates to achieve these goals. While various actions and methods have been implemented by HEIs to enhance graduate employability (Green *et al*., 2009; Mason *et al*., 2009; Pool and Sewell, 2007; Dearing, 1997), these actions have been of limited potential and have to be re-evaluated in light of recent policy changes.

Research has shown that students often understand the need for additional skills (Tomlinson, 2008), but frequently fail to link those skills to employability or tend to focus on the short-term connotation of employability (Mason *et al*., 2009; Crebert *et al*., 2004). Alongside a lack of awareness about the meaning and importance of employability and related skills, Brooks (2012) argues that another key challenge for students is to decide which skills are relevant for their individual needs and career choices. In this regard, Browne (2010) suggests that the responsibilities of HEIs are not only to teach students the necessary employability skills, but also to provide students with adequate information about the labour market (in general and within the student's specific industry), employer needs and expectations, and to develop an understanding of how the taught skills can be applied in the context of employability. HEIs cannot guarantee employment after graduation; however, they should provide sufficient opportunities to all students, regardless of their subject and course, to develop the skills necessary to find employment and to enhance their desired career. With increasing employer demands, HEIs have to be aware of students' anxieties, encourage them and work against the increasing demoralisation of students arising from pressure and unrealistic expectations (Crebert, *et al*., 2004).

In summary, the term employability can have different meanings for different stakeholders and, hence, has to be defined from an individual perspective. Also, even though widely studied, there is a lack of theory-based research in the field of employability, and research focusing on employability in the HE context has been criticised for lacking consistency, conceptualisation, rigour and theory (Cai, 2013; Green *et al*., 2009; Barrie, 2004; Brown *et al*., 2003). Also, while the topic of employability has grown in interest, student views in this context have not been well researched (Tymon, 2011). Further, there is no nationally or globally agreed set of graduate attributes that are uniformly taught to students, and points of views regarding

what graduate attributes are and how students should acquire them still vary greatly (Brooks, 2012; CBI, 2011). At the same time, the existing gaps and shortcomings between the skills of graduates and the demands of employers in a competitive and global labour market have to be acknowledged (Bridgstock, 2009; Andrews and Higson, 2008; Barrie, 2007; Hefce, 2003). The identified gaps in the literature within the field of employability suggest that there is a need for additional research, which provided the motivation for study 2. The specific aim and objectives of study 2 will be discussed in the next section.

5.3 Study Aim and Objectives

To recap, study 1 (reported in Chapter 4) showed that commencing students, influenced by recent changes in the English HE sector, are increasingly concerned about their employability prospects after graduation. The analysis of the relevant literature in the field further confirmed that the lack of standardization and conceptualization make employability a highly debated topic. The evolution from an elite education system to a mass education system, and the resulting increase in the demands of graduate employers, also intensifies the expectations of all key stakeholders.

With this in mind, and to further explore the topic of graduate employability from a student point-of-view, study 2 used a recently-implemented employability programme as the foundation to explore student perspectives in this context. The study analysed the initial perception of first year UGs of their employability, assessed their motivation for participating in the employability programme and measured their expectations of, and satisfaction with, the programme after its completion. As such, the objectives of the second study were to find answers to the following questions:

What are the motives and motivations of students to participate in a non-credit bearing employability programme?

What are the expectations of students regarding such a programme?

To what extent has the employability programme met the participants' expectations and satisfied their individual needs? and

Based on a student perspective, how could such an employability programme be optimised?

For this purpose, participants were surveyed before and after the employability programme and, based on the results, a set of recommendations was developed informing the university about how to optimise such an employability programme to meet the needs and expectations of students. The methodological approach, including the research tool and analysis methods that were employed, and the programme and survey sample, will be discussed in detail in the next section.

5.4 Methodological Approach

As discussed, HEIs should provide students with opportunities to develop their employability skills. To develop such opportunities for students, HEIs need to understand how students perceive employability and what would motivate them to participate in an (extra-curricular) employability programme offered by the institution. To design activities which appeal to students and benefit them (and other stakeholders), it is therefore vital to understand initial perceptions and expectations of students in relation to an employability-enhancing course. HEIs should then evaluate the students' experiences with the course to enhance it and tailor it to students' needs and expectations. To achieve the study's objectives, pre-evaluation of expectations and post-evaluation of satisfaction with a recently implemented employability programme were measured. The following sub-sections will discuss in more detail the content of the programme, the applied research tools and the sample for this study.

5.4.1 The 'Ready to Work, Ready for Life' Programme

The 'Ready for Work, Ready for Life' Programme (hereafter simply referred to as the 'Ready Programme') is an initiative introduced by Brunel University, to meet the demand to equip students with transferable employability skills. Overseen by a programme board, the programme was initially piloted to 200 first year UG students in the first term of the academic year 2013/14. Over a period of 10 weeks (two hours per week, Monday 5-7 p.m.), commencing UG students from all academic schools at the university had the opportunity to develop employability skills through participation in the programme. There are arguments that employability skills should be developed merely as a result of the HE process (Barrie, 2004), but it can also be argued that extra-curricular activities allow students from different backgrounds to work together and further enhance their skills as part of their wider HE experience.

Research suggests that it is crucial to set skills into a real life context (Ehiyazaryan and Barraclough, 2009). Thus, the students engaged in small teams working on projects which were placed in the areas of community engagement, enterprise and entrepreneurship, global challenges and social responsibility. Through team work, facilitated activities, secondary research, some initial primary research and financial data analysis, the students prepared and developed a response to their given project brief. Simultaneously, the students had the opportunity to meet employers, who featured as guest speakers and presented employability skills in a real-world context. The participants were led by trained facilitators, who familiarised the students with eight key employability skills (problem solving, commercial awareness, planning and organisational skills, time-management, communication, personal resilience, and team-working) based on group-engagement and progress on the project. These skills were selected by the programme board after consultation with graduate employers.

The students' success was evaluated and assessed based on the views of the facilitators, a written group report and an oral group presentation, as well as an individual reflective report summarising the personal experiences and key lessons learnt. Successful completion of the programme led to a non-credit bearing award, recognised through a certificate of achievement. This achievement was also to be recorded on the students' Higher Education Achievement Record (HEAR) and, therefore, seen by employers when presented by the student.

5.4.2 Design and Research Tools: Pre- and Post-evaluation Questionnaires

As the Ready Programme was an initial pilot, the motivations of the students to participate and their expectations were unclear. Therefore, study 2 sought to gather insights into this topic by adopting an exploratory research design. An exploratory research design allows the collection of both qualitative and quantitative data; this study focused mainly on the generation of quantitative data but also gathered qualitative data through the use of questionnaires with open- and close-ended questions.

In its first stage this study aimed to investigate the various motivations for participation and the expectations of students regarding the programme. In the second stage, the students' satisfaction after the programme was measured. For these purposes, pre- and post-evaluation questionnaires were conducted (Appleton-Knapp and Krentler, 2006) with all participating students before and after the completion of the programme. The questions were taken from various published employability studies, such as by the

University of Worcester (2009) and the Confederation of British Industry and the National Union of Students (CBI/NUS, 2011). The questionnaires were handed out to students in the first and final sessions by their group facilitators. Ethical approval was granted prior to conducting the research (see Appendix B.2). Participation in the research was anonymous and voluntary and did not influence the results or the assessment of the programme.

The pre-programme questionnaire investigating the motivations and expectations of participants was divided into five sections (see Appendix D.1). First (and similar to study 1), general demographic data, such as gender, age, study course, student status, funding method, type of accommodation and level of work experience, were collected in order to allow the exploration of any correlations in the further analysis. Then, the students were asked to self-evaluate their knowledge of employability skills by stating their level of confidence in relation to a given set on which the programme focused. Bauman *et al*. (2013) argue that using self-administered measures to determine self-perceived levels of skills relative to employability might be influenced by expectations imposed through society, but have nevertheless been perceived as fit-for-purpose for this study. However, it has to be noted that these measures are not an indicator of actual skill levels, but solely reflect the individual's perceptions of capabilities. Further, the perception of students of their future employment, as well as the different types of motivation for participation in the Ready Programme, were ranked based on a 5-point Likert scale (strongly agree, agree, neutral, disagree, strongly disagree). Finally, the students had the opportunity to explain what they hoped to gain from the programme through an open-ended question.

The post-programme questionnaire, evaluating the students' satisfaction with the programme, was constructed in a similar manner to the pre-programme questionnaire (see Appendix D.2). The first section asked for the same demographic data; the following two questions, investigating their self-perceived knowledge of employability and perceptions of future employment, were repeated with the purpose of evaluating the 'learning gain' of the students. The remainder of the post-evaluation survey used a 5-point Likert scale (very satisfied, satisfied, neutral, dissatisfied, and very dissatisfied) to measure the extent to which the students were satisfied with certain aspects of the programme (overall; programme facilitator; performance of guest speakers; and administrative side of the programme). Another question measured the self-perceived

confidence of students in relation to the eight learned graduate attributes. The final section of the questionnaire provided space for comments and suggestions from students about: what they liked the most and the least about the programme; how they would like to improve the programme; and which additional activities could help them to develop their employability skills.

5.4.3 Sample

The research was conducted with first-year UG students, drawn from all academic schools at the university, who participated in the Ready Programme in the first term of the 2013/14 academic year. All participating students were asked to fill in the questionnaire; hence, the sampling method can be seen as convenience sampling, though it should be noted that all first-year UG students initially had the same opportunity to participate in the Ready Programme. Each academic school was allowed to admit a quota of students to the Ready Programme (set by considering the proportion of the university's UG intake that the school represented), making the findings of the study in some senses reflective of the overall first-year UG population of the university.

A total of 169 students enrolled for the programme. Of these, 136 students participated in the pre-programme survey (response rate of 80 per cent), investigating their motivations for participation and measuring their expectations with the programme. Table 5.1 presents the participants' parameters as disclosed by the participants.

		Female	Male	Total
Gender		85	47	132
Age	18	38	15	53
	19	23	21	44
	20	8	2	10
	21+	16	9	25
Academic school	Business School	13	8	21
	School of Social Sciences	28	8	36
	School of Information Systems, Computing and Mathematics (SISCM)	11	12	23
	School of Arts	11	2	13
	Law School	5	0	5
	School of Health Sciences and Social Care (HSSC)	6	5	11
	School of Engineering and Design	9	11	20
	School Sport and Education	2	2	4
Status	International	11	5	16
	EU	10	7	17
	UK	65	37	102
Funding	Self-funded	13	6	19
	Student loan	63	29	92
	Scholarship/ sponsor	0	5	5
	Both: loan and sponsor	5	4	9

Type of accommodation	Off campus	38	18	56
	On campus	45	27	72
Prior work experience	Yes	61	34	95
	No	21	10	31

TABLE 5.1: PRE-PROGRAMME PARTICIPANTS' PARAMETERS

Female participants formed the majority with almost 65 per, and over 70 per cent of the students were aged 18 and 19 years old. All academic schools had an equal proportion of their commencing students admitted to the programme; therefore, it is not surprising that a high number of participants were from the School of Social Sciences, the School of Information Systems, Computing and Mathematics and the Business School, as these were the biggest schools at the university in terms of student numbers. 75 per cent of the participants were UK students and slightly over half of the students were living on campus. A majority (67.6 per cent) of the participants had a student loan and only 14 per cent were fully self-funded.

The sample size for the post-programme survey was highly influenced by the drop-out rates of student. A total of 72 participants (42.6 per cent) dropped-out throughout the course of the programme, leaving 97 students (57 per cent) who successfully completed the pilot. All of the remaining 97 students participated in the second part of the study, measuring the satisfaction with the programme. Table 5.2 shows the parameters of participants' who participated in the post-evaluation survey.

		Female	**Male**	**Total**
Gender		60	37	97
Age	18	23	13	36
	19	21	12	33
	20	8	6	14
	21+	7	4	11
Academic school	Business School	10	6	16
	School of Social Sciences	17	7	24
	School of Information Systems, Computing and Mathematics (SISCM)	7	7	14
	School of Arts	6	2	8
	Law School	5	1	6
	School of Health Sciences and Social Care (HSSC)	6	2	8
	School of Engineering and Design	6	10	16
	School Sport and Education	2	0	2
Status	International	7	5	12
	EU	9	5	14
	UK	44	27	71
Funding	Self-funded	9	6	15
	Student loan	45	23	68
	Scholarship/ sponsor	0	1	1
	Both: loan and sponsor	3	3	6
	Loan, self-funded and sponsor	1	0	1

Type of accommodation	Off campus	24	13	37
	On campus	35	22	57
Prior work experience	Yes	48	29	77
	No	11	4	15

TABLE 5.2: POST-PROGRAMME PARTICIPANTS' PARAMETERS

The ratio of female and male participants who successfully completed the programme stayed largely the same as at the beginning of the programme, as did the ratio for other variables. An initial drop-out analysis was carried out by the researcher; however, due to the diversity of participating students and the lack of complete background information, the analysis did not reveal significant outcomes, indicating that drop-out was not significantly influenced by one or more parameters.

5.5 Pre-programme Survey: Data and Results

This section describes the data and results of the pre-programme survey investigating the motivations and expectations of participating students. The data of the closed-ended questions was analysed using analytics software (SPSS Version 18.02 and 20), while the results of the open-ended questionnaires were coded, grouped and analysed based on Benbunan-Fich (2001). In presenting the result, first, the frequency counts will be presented; then, correlations between the questionnaire items and the participants' characterising variables will be examined. Finally, the outcomes of the final, open-ended question of the questionnaire, exploring what students hoped to gain from the Ready Programme, will be discussed.

5.5.1 Descriptive Statistics

95 students had some type of work experience, in contrast to 31 students who had never worked before (see Table 5.3). Considering the percentages, there was no significant difference between males and females, with around 75 per cent of students of each gender having prior work experience (only 126 participants answered this question).

	Yes	**No**	**Total**
Female	61	21	82
Male	34	10	44
Total	95	31	126

TABLE 5.3: PRIOR WORK EXPERIENCE

As Figure 5.2 shows, of the 95 participants who indicated that they had work experience, a high number of students (54) collected this experience through voluntary work. Additionally, 42 students were previously or currently (at the time of the

research) employed in course-unrelated part-time work. Another 13 students had undertaken a placement or internship and 16 students had previously been in full-time employment.

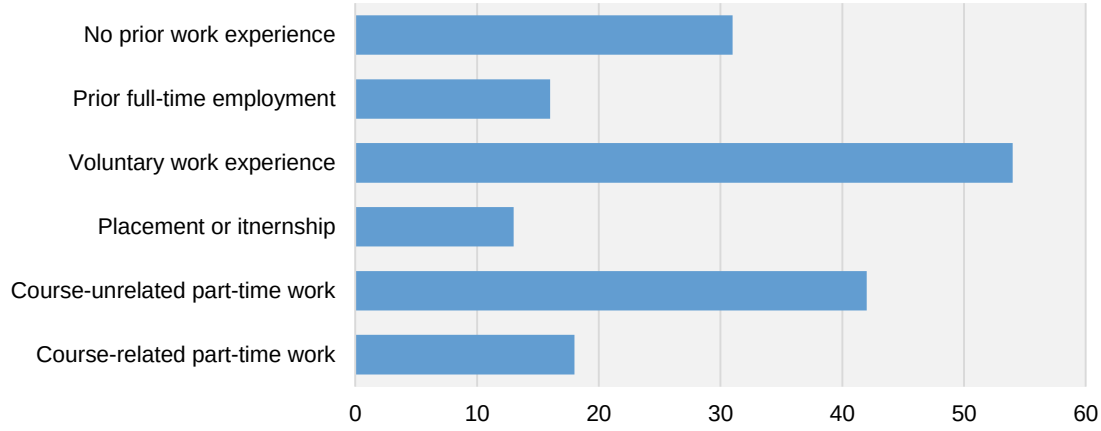

FIGURE 5.2: TYPE OF WORK EXPERIENCE OF PARTICIPANTS

Considering the high number of students with work experience, it is surprising that only 24 students were very confident that they knew which skills are important to employers (see Table 5.4.). 97 students claimed that they had some idea about which skills are important, but did not feel confident about it, even after some type of work experience. Even though 31 students had no prior work experience, only 12 students were not confident and two students did not know at all which skills are desired by employers.

	N
Yes, I am confident that I know which skills are important	24
I have some idea about which skills are important	97
I am not confident that I know which skills are important	12
No, I do not know which skills are important	2

TABLE 5.4: DO YOU KNOW WHICH SKILLS ARE IMPORTANT TO EMPLOYERS AFTER GRADUATION?

Table 5.5 summarises the perception of the programme participants of their future employment.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I know what career or job I would like to work towards when I complete my degree	29	62	33	10	2
I think that my university course will help me to equip me sufficiently for my future career or job	63	65	7	1	-
I feel that extra-curricular activities undertaken during my time at university will help to equip me for my career or job	68	50	16	2	-
I know which skills and experiences are valued by employers in my desired field	11	79	42	3	1
I feel confident about making applications to future	16	53	49	16	2

employers					
I feel confident that I will be able to find appropriate work when I leave university	22	64	41	7	2

TABLE 5.5: WHAT IS YOUR PERCEPTION OF YOUR FUTURE EMPLOYMENT? (PRE-PROGRAMME)

Almost half of the students (45 per cent) agreed that they know what career they want to pursue after the completion of their degree and almost all students (94 per cent) strongly agreed or agreed that the university course will equip them with the necessary skills to achieve this. Also, 87 per cent strongly agreed or agreed that the extra-curricular activities undertaken during their studies will equip them for their future careers. However, while 66 per cent stated that they know which skills are relevant in their particular field, 34 per cent were neutral or disagreed. When evaluating the confidence to make applications to future employers, half of the participants agreed that they were confident and half of the participants were neutral or disagreed (13 per cent). 63 per cent of the students felt confident that they will find appropriate work after graduation; nevertheless, 30 per cent were neutral and 9 students disagreed to some extent.

The main motivations for students to participate in the programme (see Table 5.6) were the prospect of improving their job opportunities (133 strongly agree and agree), the development of career-relevant skills (124) and the gain of theoretical and practical knowledge. For many students (111) the outlook of receiving a certificate for their portfolio was also a major driver.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
To improve my job opportunities	102	31	2	1	-
It sounded interesting	43	69	19	4	1
My family/friends told me to participate	6	13	35	39	42
To help develop the skills relevant to my career	59	65	9	2	-
Personal interest - I love learning new things	47	55	32	1	-
To gain theoretical and practical experience	65	54	14	1	-
To receive a certificate for my CV/portfolio	63	48	19	1	-

TABLE 5.6: WHAT IS YOUR MOTIVATION FOR PARTICIPATING IN THE READY PROGRAMME?

Additional answers by students to the question about their motivation included: to gain confidence; to expand or improve working skills; to work in a team and to meet new people; to increase employability chances; and to maximise learning potential and gain experience. Some students mentioned that they were motivated to participate as it was a good opportunity and was free.

5.5.2 Statistical Analysis

Initially, a chi-square test for independence and cross-tabulations were conducted to examine the relation between variables and questionnaire items. Then, dependent on the normality of the data and in order to investigate associations and relationships between variables and the questionnaire items, various parametric and non-parametric methods such as independent samples t-test, Mann-Whitney U test, analysis of variance, and Kruskal-Wallis test were conducted. However, these statistical procedures delivered no truly significant results. In fact, for the parameters age, status and funding not a single statistically significant result was found. Nevertheless, some of the results will be presented in this section, to show the analysis undertaken.

For the variable gender, the chi-square test resulted in significant outcomes for only three statements, namely "I feel confident that I will be able to find appropriate work when I leave university" and regarding the motivations for participation: "to improve my job opportunity" and "to gain theoretical and practical experience" (see Table 5.7).

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Pearson Chi-square	Asymp. Sig. (*p*)	Cramer's V
I feel confident that I will be able to find appropriate work when I leave university									
Males	13	23	12	0	2	50	15.962 (df=4)	.003	.010
Females	9	41	29	7	0	86			
To improve my job opportunities									
Males	31	18	0	1	0	50	11.440 (df=3)	.010	.281
Females	71	13	2	0	0	86			
To gain theoretical and practical experience									
Males	18	22	9	0	0	49	8.022 (df=3)	.046	.242
Females	47	32	5	1	0	85			

TABLE 5.7: CHI-SQUARE TEST FOR INDEPENDENCE: GENDER

The importance of the relation between variables can be measured by observing the p-value and Cramer's V, using the guidelines of Botsch (2011) and Pallant (2010) (see Section 4.5.2). For completeness, Appendix D.3 shows all significant results found during the statistical analysis, reflected through the p-value and Cramer's V. However, as mentioned before, the results seem rather arbitrary and not truly related to the variable in question.

As suggested by the literature in the field, the researcher decided that previous experience should be one of the most important indicators in relation to this programme. For instance, it can be assumed that students with prior work experience will be more confident in regards to the skills desired by employers and in regards to their perceptions of their future employment. Therefore, the following section will focus on

outcomes in relation to previous work experience, even though, surprisingly, not many results were significantly different for participants with or without work experience. For example, as shown in Figure 5.3, students with work experience seem to be more confident about knowing the desired skills of employers than students without work experience. However, this is owing to the higher overall number of students with work experience (95) in contrast to students without work experience (34) and the chi-square test for independence delivered no significant p-value.

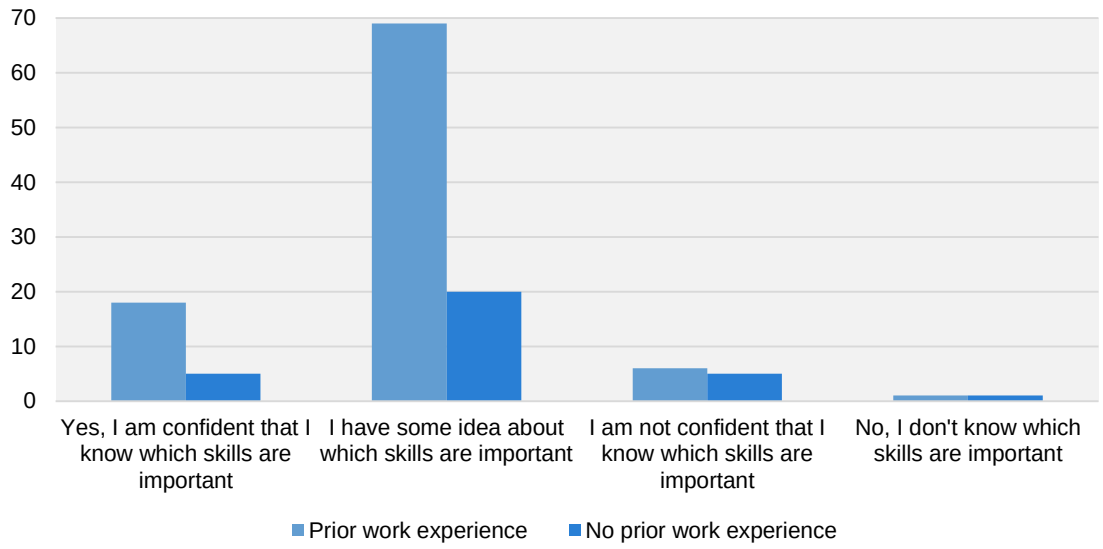

FIGURE 5.3: CROSS-TABULATION: WORK EXPERIENCE AND "WHICH SKILLS ARE IMPORTANT TO EMPLOYERS AFTER GRADUATION?"

The occurrences of significant results as an outcome of a Chi-square or Mann-Whitney U test seem to be rather random and arbitrary and not statistically reliable. For example, Pearson's Chi-square test evaluating the dependencies between variables led to significant values for the variable 'prior work experience' (yes=student has prior work experience; no=student has no prior work experience) and the statements "I think that my university course will help me to equip me for my future career" and "I feel that extra-curricular activities undertaken during my time at university will help to equip me for my career" (see Table 5.8).

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Pearson Chi-square	Asymp. Sig. (*p*)	Cramer's V
I think that my university course will help me to equip me sufficiently for my future career or job									
Yes	48	40	7	0	0	95	7.457 (df=2)	.024	.216
No	11	20	0	0	0	31			
I feel that extra-curricular activities undertaken during my time at university will help to equip me for my career or job									
Yes	53	26	15	1	0	95	19.710 (df=3)	<.001	.367
No	10	20	0	1	0	31			

TABLE 5.8: PEARSON'S CHI-SQUARE TEST: PRIOR EXPERIENCE

However, the Mann-Whitney U test resulted in no significant difference between students with or without work experience in the context of these statements (see Appendix D.4). Nevertheless, the Cramer's V indicates a strong relationship between the mentioned variables. For completeness, Appendix D.5 shows the outcomes of the cross-tabulation for prior experience and the level of confidence of students in their knowledge of skills important to employers. Appendix D.6 summarises the cross-tabulations between prior work experience and current perceptions of future employment and Appendix D.7 shows the cross-tabulation between prior experience and the motivations to participate in the programme.

5.5.3 Coding of the Qualitative Data from Open-ended Questions

The data collected through the open-ended question investigating what participants hoped to gain through the programme were coded and analysed according to the three main steps for the generation and coding of qualitative data based on Benbunan-Fich (2001) (see Figure 5.4).

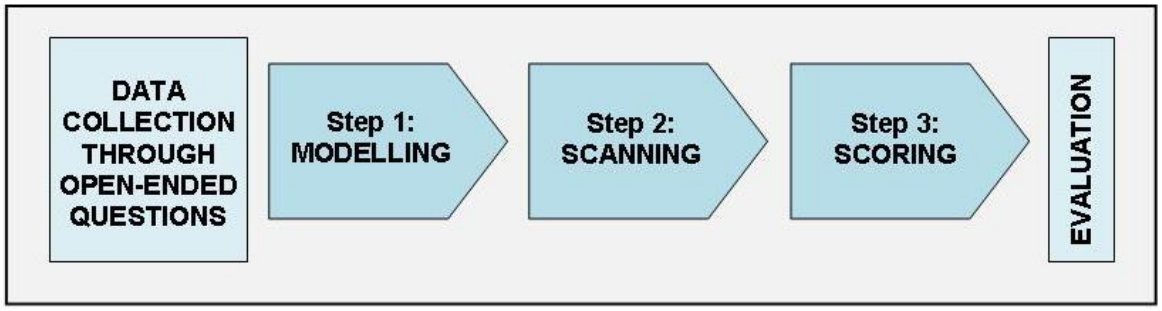

FIGURE 5.4: STEPS OF CODING AND ANALYSIS (ADAPTED FROM BENBUNAN-FICH, 2001)

This coding scheme facilitates the categorisation of utterances and the grouping of patterns of utterances. For the investigation of a specific topic, the modelling technique can be used to divide the protocol into small categories; through scanning and scoring, further sub-categories can be formed and the frequencies of occurrences counted.

The participants were asked to state what they hoped to gain from the employability programme. These answers were sorted and grouped in order to establish main categories and sub-categories. Originally, 16 categories were identified, which were then reduced to 11 categories and 31 sub-categories (see Table 5.9). The numbers in the brackets identify the number of utterances in each category and sub-category.

Categories	Sub-categories
Application Process (15)	Understanding expectations (6) Application (6) Interview (3)
Communication skills (21)	Communication skills (13) Presentation skills (4) Public speaking skills (3) Interpersonal skills (1)
Confidence (16)	Confidence (15) Self-confidence
CV (8)	Enhance/improve CV (2) CV preparation (2) Certificate (4)
Employability (14)	Prepare for employability (7) Improve employability (7)
Experience (23)	(New) experience (12) Work experience (5) Other (6)
Knowledge (23)	Knowledge (general) (13) Specialised knowledge (10)
Networking (8) and New friends (15)	
Distinctiveness (11)	Stand out (6) Make CV stand out (1) Advantage over other applicants (1)
	Personal development (3)
Skills (82)	General life skills (28) Work skills (26) Improvement of skills (11) Other (6)
	Leadership and management skills (4)
	Problem-solving skills (2)
	Time-management skills (5)
Team-working skills (25)	

TABLE 5.9: CODING SCHEME

Overall, a total of 261 comments were recorded. It was predictable that many students expected to gain general life skills (28), work skills (26) and improve skills (11) through their participation in the Ready Programme and many participants mentioned specific skills, such as communication skills (21), team-working skills (25)[7] and time-management skills (5). Also unsurprisingly, many students expected to gather new experiences (23) and to increase their knowledge (23). Some participants made comments specifically related to employability; these comments were divided into two categories: prepare for employability (7) and improve employability (7). Comments included "become ready for work", "preparation for market place" or "increase chances of getting a job". Relevant comments included:

[7] Team-working and communication skills were not included in the category 'skills', but rather given their own category owing to the high number of mention

> "I hope to gain skills and an experience that would prove vital in the future." (Male, 19, course unrelated part-time work)

> "I hope to gain skills that would help me advance my role in my future career. I hope that this course would allow me to develop my existing skills and lay a foundation for skills I have not already acquired. Hopefully this course would allow me to stand out." (Female, 19, volunteering and course-unrelated part-time experience)

These comments are closely related to the comments made in regards to the application process (15). Understanding the expectations of employers and becoming more familiar with application processes and interviews was often expected and desired by students. Therefore, rather than just teaching transferable skills, universities should provide the opportunity for students to become familiar and confident with CV writing, job interviews, and the processes in assessment centres. One participant said:

> "I want to get more knowledge and skills about how to get a good job, how to prepare the CV and how to develop myself." (Female, 18, no prior work experience)

Relating this to the career management model proposed by Bridgstock (2009) skills related to the application process could be classified under career building skills and certainly have to be increasingly taught to students.

Also, confidence arose for the first time as a critical factor, as a high number of students hoped to gain confidence (16) through their participation or to be distinctive and to stand out from others, either through the visibility of their skills or performance during the application process:

> "[I hope to gain] Experience in different aspects of employability skills in order to make myself stand out from other graduates." (Male, 19, volunteering and course-unrelated part-time experience)

> "Make my CV stand out from the rest by adding something different." (Male, 18, no prior work experience)

Again, it may be seen as surprising that students with and without prior work experience have very similar motivations and expectations and aim to achieve the same goals through the participation in the programme. Also, age is not an indicator of confidence, as the following two comments show.

> "I strongly believe it will also help me build my confidence in terms of presenting to other people - which will also benefit me at my time at university. (Female, 18, volunteering and course-unrelated part-time experience)

> "Confidence. I've got experience of many types of work and lots of transferable skills but lack the confidence to really sell myself and make myself heard in a group." (Female, 32, prior full-time employment)

Confidence is an attribute that has been rather neglected within the GGA until recently, but the changing demand for ready-to-employ graduates has evoked new discussions in this area and the results of the initial study show that confidence is a topic of interest for students within the concept of employability. Also, throughout this study confidence will be identified as a key factor for students within employability, which ultimately informs the scope of study 3 (reported in Chapter 6).

After completion of the 10-week programme, participants were asked to fill in a post-programme questionnaire the results of which will be presented in the following section.

5.6 Post-programme Survey: Data and Results

This section describes the data and results of the post-programme survey measuring the satisfaction of participating students with the Ready Programme and investigating in more detail what students liked the most and the least about the programme. Further, students were asked to provide any suggestions for the improvement of the programme. In this section, the frequency counts will be presented, then the correlations between the questionnaire items and the participants' parameters will be examined. Finally, the outcomes of the open-ended questions will be discussed.

5.6.1 Descriptive Statistics

All 97 students who successfully completed the programme also participated in the post-programme evaluation survey. Where possible, this section will compare the descriptive statistics from the pre- and post-programme questionnaire. For example, a significant change occurred in the number of students who were confident about knowing which skills are important to employers. Before the Ready Programme, only 17.6 per cent (24 students) claimed that they were confident in knowing which skills were important, while after the programme a majority of 56.7 per cent (55 students) were confident about this (see Figure 5.5). In all other categories, the number of students decreased in the post-programme measurement, reflecting the increase in the first category (i.e., that overall students had more confidence in this context). At the end of the programme not a single student indicated that he/she did not know which skills were important to employers.

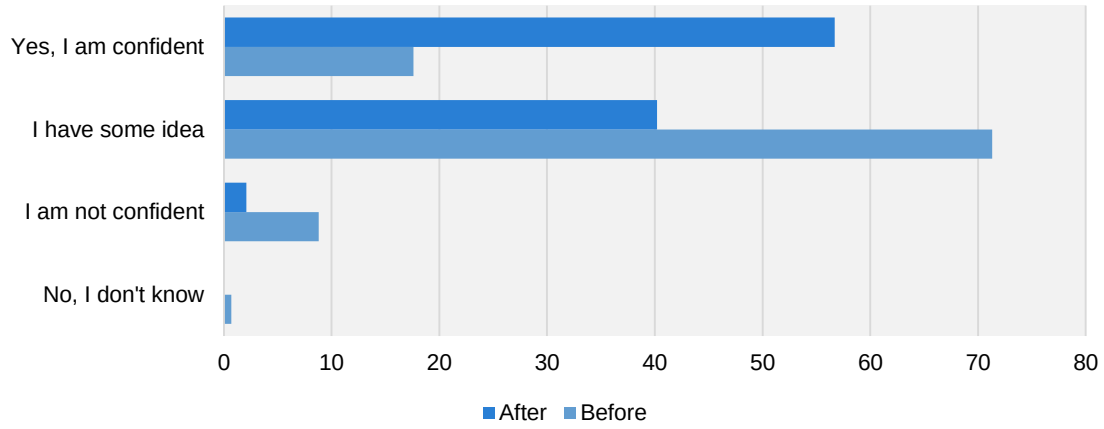

FIGURE 5.5: DO YOU FEEL YOU KNOW WHICH SKILLS ARE IMPORTANT TO EMPLOYERS? COMPARISON BEFORE AND AFTER THE PROGRAMME (IN %)

The frequency counts for the section of the questionnaire investigating the participants' current perceptions of their future employment are displayed in Table 5.10.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I know what career or job I would like to work towards when I complete my degree	23	50	16	5	3
2. I think that my university course will help me to equip me sufficiently for my future career or job	47	40	9	1	0
3. I feel that extra-curricular activities undertaken during my time at university will help to equip me for my career or job	43	40	13	1	0
4. I know which skills and experiences are valued by employers in my desired field	18	67	11	0	1
5. I feel confident about making applications to future employers	13	58	22	3	1
6. I feel confident that I will be able to find appropriate work when I leave university	17	54	23	2	1

TABLE 5.10: WHAT IS YOUR PERCEPTION OF YOUR FUTURE EMPLOYMENT? (POST-PROGRAMME)

Perceptions did not change in a major way, except that for some items fewer students chose the neutral option. For example, before the programme, 24.3 per cent of participants were neutral about the statement "I know what career or job I would like to work towards when I complete my degree", whereas after the programme (and 10 weeks into their first academic year) only 16.5 per cent were neutral. At the same time, the percentage of students who strongly agreed increased from 21.3 per cent to 23.7 per cent and the students who agreed increased from 45.6 per cent to 51.5 per cent. One of the most significant changes occurred in relation to the statement "I know which skills and experiences are valued by employers in my desired field". Here, the number of students who strongly agreed and agreed increased by over 10 per cent, while students who initially selected the neutral answer option decreased from 30.9 per cent before the

programme to 11.3 per cent after the programme. Also, the statement regarding students' confidence to make applications to future employers clearly showed the impact of the programme on students' perceptions: the ratio of participants who indicated agreement with this statement increased from 38.9 per cent to 59.8 per cent, while neutral participants decreased from 36.0 per cent to 22.7 per cent and students who disagreed decreased from 11.8 per cent to 3.1 per cent.

Overall, the programme met the students' expectations (46 students) or exceeded it to some degree (exceeded: 30 students; greatly exceeded: 11 students). Only eight students said that the programme did not meet their expectations and for two students the programme was significantly below their expectations (see Figure 5.6).

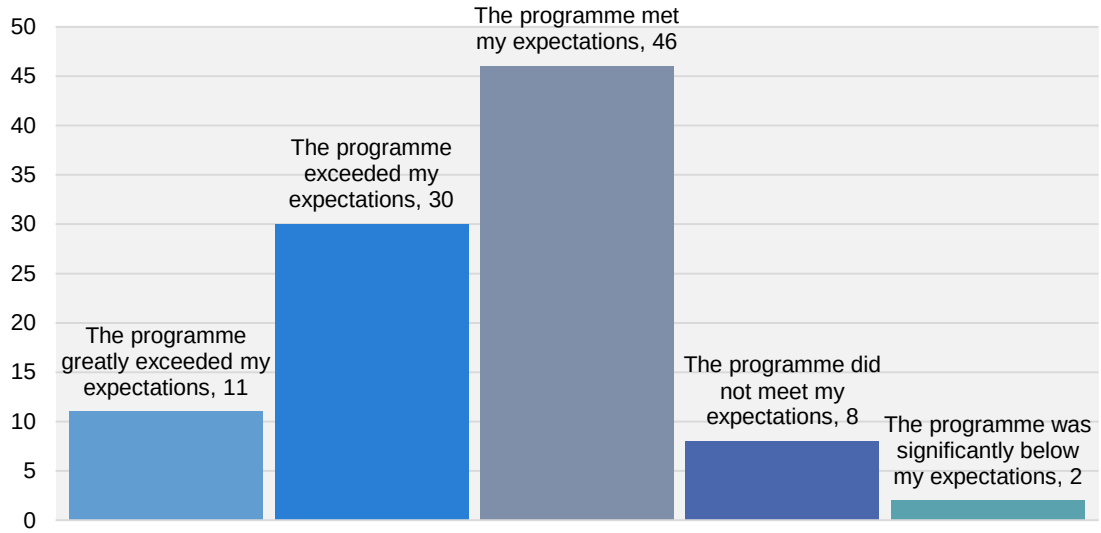

FIGURE 5.6: IN HOW FAR DID THE PROGRAMME MEET YOUR EXPECTATIONS?

The survey then aimed to investigate in more detail with which aspects of the programme students were/were not satisfied. For this purpose, satisfaction levels in relation to the team facilitators, the performance of the guest speakers and the administrative side of the programme were measured.

Measurement in relation to how satisfied the students were with their facilitators were made with respect to their friendliness, helpfulness, approachability, support, knowledge, and the facilitation of the group meetings (Figure 5.7). This showed that the majority of participants were very satisfied or satisfied with their facilitators in all aspects. On average 72 students indicated that they were very satisfied with their facilitators' performance and 22 students were satisfied. Very few students said that

they were either neutral, dissatisfied or very dissatisfied with their facilitators (negative ratings were associated with one particular facilitator).

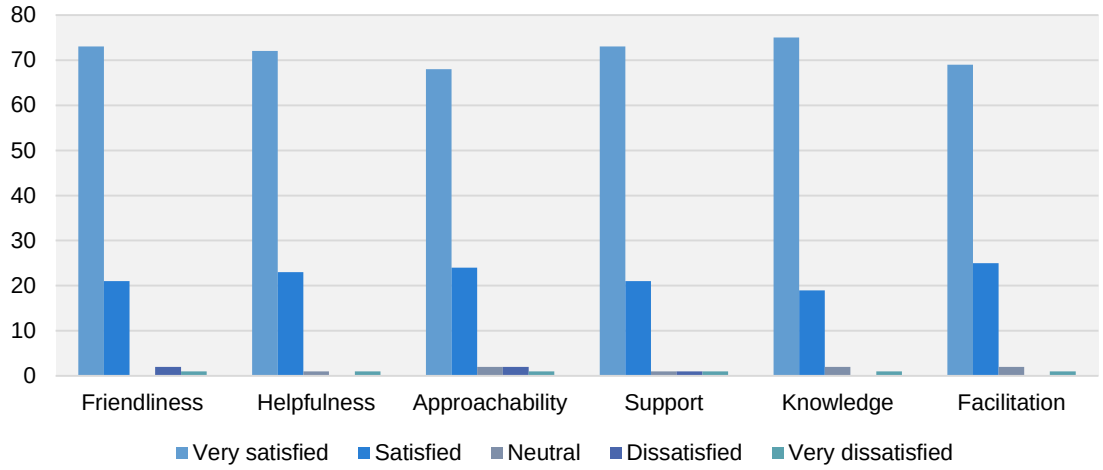

FIGURE 5.7: SATISFACTION LEVELS WITH FACILITATORS

Further, measurements were made of how satisfied the students were with the performance of the three guest speakers who were invited to familiarise the programme participants with certain aspects of employability, such as social media in the corporate world, personal resilience and interviews and application processes. As Figure 5.8 shows, overall the students were generally very satisfied or satisfied with the guest speakers or adopted a neutral viewpoint. The guest speaker from Rent-a-Car Enterprise achieved the highest satisfaction levels, with 37 students being very satisfied and 47 satisfied with his performance. The speaker from Hillingdon Council, introducing the topic of personal resilience did not achieve such high rankings, with significantly fewer students being satisfied and 10 students being dissatisfied and four very dissatisfied. Slightly more students were satisfied with the guest speaker from ABMA, talking about applications, interviews and assessment centres.

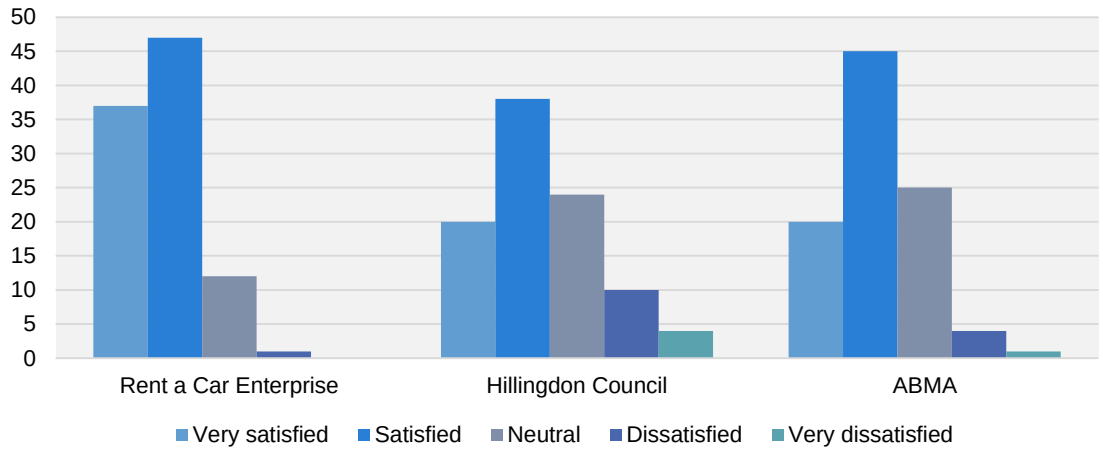

FIGURE 5.8: SATISFACTION LEVELS WITH GUEST SPEAKERS

Finally, the satisfaction levels of participants in relation to the administrative side of the programme were measured; specifically the following aspects were investigated: organisation and planning; communication; assessment criteria; and the project themes (see Figure 5.9). On average, 30 students were very satisfied with the four different aspects of the programme and 47 participants were satisfied. 17 students on average were neutral about the different administrative factors of the programme, three were dissatisfied and one student was very dissatisfied.

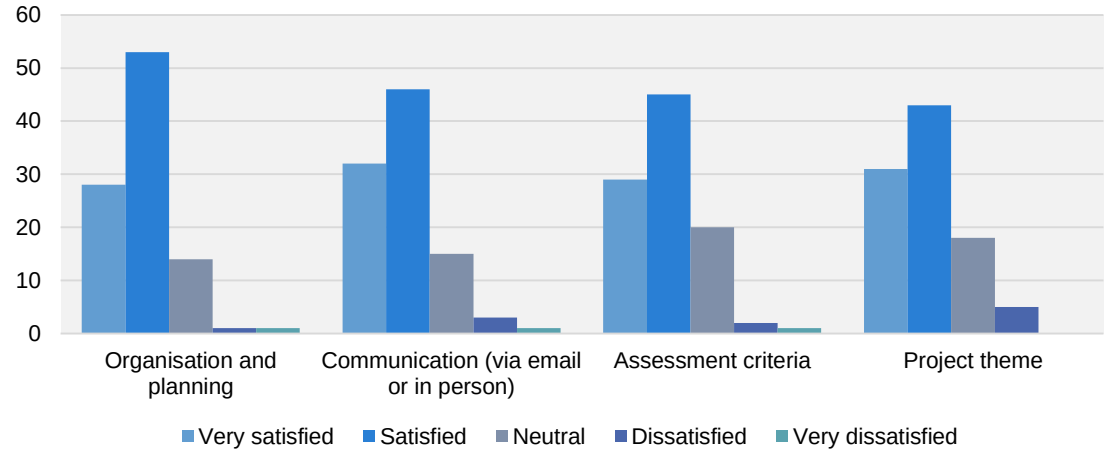

FIGURE 5.9: SATISFACTION LEVELS WITH ADMINISTRATIVE SIDE OF THE PROGRAMME

The survey also explored how confident participants were in relation to the eight attributes that the Ready Programme aimed to developed, namely: communication; commercial awareness; financial and other data analysis; organisation and planning; personal resilience; problem solving; teamwork; and time management (see Figure 5.10).

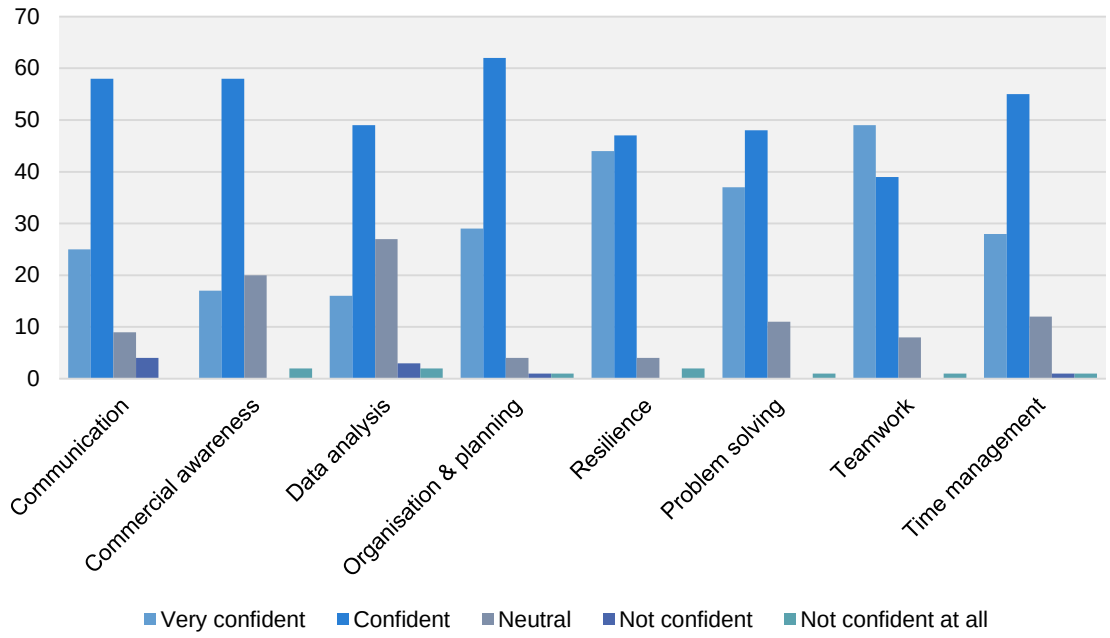

FIGURE 5.10: HOW CONFIDENT ARE YOU ABOUT YOUR ABILITIES REGARDING THE SKILLS YOU HAVE LEARNT DURING THE PROGRAMME?

Many students were very confident about some of the employability skills that they had developed throughout the programme, with personal resilience (44), problem solving (37) and teamwork (49) achieving the highest rankings in the category "very confident". The majority of participants were confident about all eight attributes. Nevertheless, quite a high number of students ticked the neutral option for some of the attributes, such as commercial awareness (20) and financial and other data analysis (27). Very few students indicated that they were not confident or not confident at all with their abilities regarding particular skills.

5.6.2 Statistical Analysis

The statistical analysis of the data focused primarily on correlations and cross-tabulations, as any other statistical techniques were not judged to be valuable in this context. The outcomes of these analyses are presented in this sub-section.

The relationships between the different participant parameters and the various survey items were investigated using the Pearson correlation coefficient, derived from the measurement of correlations. There were small to medium correlations between some variables and items (see Table 5.11). The strength of the relationship can be measured through the correlation coefficient, following the guidelines of Cohen (1988): r=.10 to .29: small; r=.30 to .49: medium; r=.50 to 1.0: large relationship.

		Funding	Living	Do you feel you know which skills are important to employers after graduation?	Total Perception
Age	Pearson Correlation (r)	.236*	.222*	.204*	-.225*
	Sig. (2-tailed)	.026	.033	.049	.029
	N	89	92	94	94

		Living
Status	Pearson Correlation (r)	-.358**
	Sig. (2-tailed)	.000
	N	94

		Organisation and planning	Problem solving
School	Pearson Correlation (r)		-.272**
	Sig. (2-tailed)		.008
	N		94
Funding	Pearson Correlation (r)	-.218*	
	Sig. (2-tailed)	.038	
	N	91	

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

TABLE 5.11: POST-PROGRAMME CORRELATIONS

There was a small, positive relationship between the variables age and funding (r=.236, n=89, p=.026), age and living (r=.222, n=92, p=.33), and age and the questions "do you feel you know which skills are important to employers?" (r=.204, n=94, p=.049). A small, negative relationship was measured between age and total perception (combining all statements related to students' current perception of their future employment) with r=-.225, n=94, p=.029. A medium, negative relationship was detected between the variables status and living (r=-.358, n=94, p<.001). The confidence levels of some attributes were negatively related to variables: there was a small, negative relationship between the school the participant was enrolled in and confidence in problem solving skills (r=-.272, n=94, p=.008), as well as funding and the confidence in organisational and planning skills (r=-.218, n=91, p=.038). No other correlations were found and surprisingly, again, previous experience was not identified as an influencing factor.

A chi-square test for independence confirmed that there was a significant association between age and the question "Do you feel you know which skills are important to employers after graduation?", $\chi^2(10, N=94)=22.776$, p=.012, Cramer's V=.335 (very strong relationship). The chi-square test also confirmed the existence of strong dependencies between the variables status and living, $\chi^2(2, N=94)=16.339$, p<.001, Cramer's V=.358.

5.6.3 Coding of the Qualitative Data from Open-ended Questions

The final section of the post-programme survey incorporated four open-ended questions, exploring what participants liked the most and the least about the

programme, suggestions participants had for the improvement of the programme, and which other activities could help students to develop their employability. As in the pre-programme survey, the guidelines by Benbunan-Fich (2001) were used to categorise the data.

First, the participants were asked to state what they liked the most about the programme and why. The answers were sorted and grouped in order to establish main categories and sub-categories. A total of 106 comments were collected for this question. These comments were grouped into four categories: teamwork (29 utterances); networking and human factors (50 utterances); programme (10 utterances); and skills development (17 utterances) (see Appendix D.8). Some of these categories were further divided into sub-categories.

The category 'teamwork' included all mentions that specifically stated that teamwork was the most enjoyable part of the programme for the participant. This category united comments such as, "team work, because it helps improving skills of individuals"; "I liked the way of tackling problems as a team"; or "being part of a team and plan something together". Within this context, confidence was mentioned a second time as some students stressed the importance of gaining the confidence to work in a team, rather than the skill (team work) itself: "I became confident to work within a group with different people"; or "I gained confidence to work in a team".

The category 'networking and human factors', which focused on mentions in relation to people, was further divided into three sub-categories: group members and making new friends (35 utterances); guest speakers (9 utterances); and facilitators (6 utterances). The first sub-category, 'group members and making new friends', included all mentions that were related to other students, such as "opportunity to meet and interact with others"; "I thought my group made the programme great"; or "the people that I met, they were very supportive". Some mentions – such as "getting to work with new people"; "my team"; or "working with people from other degree courses/other disciplines" – could also have been codified within the category teamwork; however, the researcher decided that based on the formulation in these cases the human factor (i.e., meeting new people and making friends) was more significant than the actual teamwork. The second sub-category included all mentions in relation to the guest speakers and their presentations and the third sub-category described all mentions in relation to the facilitators, such as "I thought my facilitator made the programme great" or "the friendliness and support

given". The category 'programme' was divided into three further sub-categories: project (3 utterances); tasks (2 utterances) and programme (5 utterances). All mentions in this category were directly related to the programme, for example: "the theme of the project that was given to us"; I liked the fact that we had to be very interactive and imaginative"; and "it was arranged really well". The category 'skills development' was divided into two sub-categories: skills (12 utterances) and personal development (5 utterances). The sub-category 'skills' comprised mentions regarding specific skills, for example, "helped me in my skills using SPSS" and "researching for pieces of information", or in regards to skills in general, such as "acquiring new skills". The sub-category 'personal development' focused more on personal benefits of the programme, such as "I learnt many things about me".

Within the category skills development, the concept of confidence emerged again, as some participants specifically mentioned the gaining of confidence in general or in relation to certain skills (e.g., "improving my skills and gaining confidence"; "team building, resilience and time-management were some of the things I struggled with and now I'm confident I can cope"; "build communication and confidence"; or "it reinforced what I thought my strengths and weaknesses are and increased my confidence").

Participants were also asked what they liked least about the programme. A total of 63 comments were collected for this question, which were divided into three categories: speakers (7 utterances); programme (48 utterances); and people issues (8 utterances) (see Appendix D.9). Participants criticised the speakers as being "disengaging" or indicated that "the speakers did not appeal" to them. Three participants specifically mentioned the Hillingdon Council speech about resilience as the least liked aspect of the programme. The category 'programme' was further divided into four sub-categories: time and length of the programme (20 utterances); projects and themes (11 utterances); work load and assessment (12 utterances); and organisational issues (5 utterances). In the first sub-category, participants criticised the duration of the programme (some students said that the programme was too long while others said it was too short); the late time-slot on Monday evenings was also mentioned in this context. In the second sub-category, students mentioned issues such as "topic too wide", "boring theme" or "not clear enough, quite a big task (huge work load)". This leads to the next sub-category 'work load and assessment'. Some participants were overwhelmed by the work

load, indicated by comments such as "time management with studies" and "the unrealistic amount of work expected to be done by such a small number of people alongside our courses". Also the assessment was perceived by some students as the least liked aspect of the programme, as reflected in comments such as: "presenting, due to nervousness"; "I least liked writing out our individual report" and "the presentation because I don't like speaking in front of people". The final sub-category within 'programme' comprised of organisational issues, for example: "not enough prior information" and "it could have been planned better – they didn't have a contingency plan when people backed out". The third combined all mentions in relation to people issues, for instance: "students not attending"; "too many people in one group"; and "unfriendly (though helpful) facilitator".

The question asking for suggestions for improvements resulted in 60 comments, which were closely related to the issues raised in the previous question investigating what students liked least about the programme. Therefore, the comments were divided into related categories: guest speakers (7 utterances); time and length of programme (15 utterances); project theme and brief (10 utterances); activities and teaching (12 utterances); organisational issues (5 utterances); groups (9 utterances); and facilitators (2 utterances) (see Appendix D.10).

As with the issues raised within time and length of programme in the least liked section, students suggested both options: to expand the length of the programme and to shorten it. Participants seemed to agree on issues around the time slot of the programme though, with comments including: "different time to have sessions in consideration for students living off-campus"; "have different time for session (too late now)" and "maybe different day, more than Monday". For the issue around the project theme and brief, students suggested to have "variety of themes"; "make the themes more fun" or to provide "clear guidelines" and to make "guidelines more focused; how much work should be done". Within the category 'activities and teaching', students suggested various things, such as "more team building activities" and "more interactivity"; or made comments such as "I wish there had been a bit of hard core teaching; more actual learning that we can then apply". In the category 'organisational issues', the issues regarding information and support were addressed by comments such as "plan in advance the tasks that need to be done well before-hand"; "support outside meeting hours"; and "more/better communication".

A big issue throughout the programme was the high drop-out rates of participants. This significantly influenced the progress of the remaining team members, as well as team dynamics and responsibilities. Therefore, students suggested in the category 'groups' to: have "smaller groups"; "have back-up students when people back out of the groups" and "not to include more members into the group after week 2". The final category reflected suggestions regarding facilitators. Two participants commented on this; one would like to have a "more friendly facilitator" and the other suggested "facilitators to come and talk about the projects being worked on by students". Both participants were led by the same facilitator who received negative feedback in previous parts of the survey.

The final question investigated whether there were any other activities that the students thought could increase their employability. A total of 44 comments were collected for this question, but three comments were excluded from the analysis because they were not clear. The remaining 41 comments were sorted into four categories: work experience and link to employers (20 utterances); interviews and applications (6 utterances); skill-specific activities (7 utterances); and other (8 utterances) (see Appendix D.11). Within the category 'work experience and link to employers', many participants unsurprisingly indicated that work experience would increase their employability. However, suggestions outside of the standard work experience and placement models were also made, for instance: "talks from professionals"; "volunteering"; or "visiting local companies for a day". Further, in the category 'interviews and applications', students pointed out that they would welcome opportunities such as: "interview simulations"; "workshops for interview techniques"; or "application/CV practice". The category 'skill-specific activities' combined all mentions that included specific subjects, activities or topics, for example: "more work on financial and data analysis"; "more activities in my field (law); or "skills day – teaching skills that relate more to employability". The final category 'other' comprised all remaining mentions which could not be categorised in any of the above categories. Examples here included "more meeting times/ experience/ programmes" and "ability to interact with others with ease". Some of the comments in this section related to the Ready Programme and were suggestions of how to improve the programme, rather than additional activities which could help students to develop their employability. Confidence was mentioned for a fourth time in this context, with some participants expressing their wish to increase their confidence through additional activities (e.g.,

"skills seminars that increase confidence in skills"; "Mock interviews to become more confident in the process"; or "public speaking because I'm not confident to present").

5.7 Discussion and Recommendations

Even though the majority of the participants were satisfied with the programme and its outcomes, as for any pilot programme, the Ready Programme faced some challenges and encountered issues. This section will summarise the issues from a student perspective and then, based on both the pre- and post-programme research, suggestions and recommendations will be provided on how to improve this specific employability programme and how to enhance student employability and skills development in general. The issues experienced by students can broadly be divided into two categories: issues surrounding people (i.e., group members, guest speakers, facilitators) and issues surrounding the programme itself (e.g., time and duration, projects, tasks and activities, workload, assessment criteria). Recommendations will also be provided in these areas.

5.7.1 Human Factors: Issues and Recommendations

While 79 positive utterances were made in relation to human factors, as always when people from a diverse background work together, issues will emerge. In the Ready Programme, one important aspect was the invitation of guest speakers from different business areas. The direct link to employers is highly valued by students and can help them to understand how to transfer the learnt skills into the employment context. However, several participants argued that some speakers were disengaging and did not appeal to the students' needs or interests. Therefore, while interaction with employers or speakers from the business world is beneficial, it is important to meet student needs in order to encourage students to attend such presentations and to maximise the benefits and learning outcomes for students. Particularly considering the diverse background of students in terms of demographics and backgrounds, level and type of work experience, as well as degree course and desired career path, it is important to invite guest speakers who appeal either to the wider or to a very specific audience. For a wider audience (i.e., all students), topics can be general and subject-unspecific (for instance: how to use the internet to find placements and jobs; social media in the application process; or personal resilience). However, to conform to the suggestions of students regarding more interactivity, students could be split into smaller groups so that speakers can engage more with the students and discussions are stimulated. This directly leads to the

recommendation to provide presentations for a specific audience, for example students within a certain subject area. Some Ready Programme participants criticised the speakers for only talking about topics in the field of business studies. Therefore, it is suggested that guest speakers are invited at the same time from different industries and fields and students encouraged to decide which talk/presentation they would like to attend based on their needs and interests. This can then be expanded to interactive workshops aimed at specific fields or skills.

Many participants indicated that they most enjoyed the social aspect of the programme, such as teamwork, networking and meeting other students from different study courses. However, working in such diverse groups inevitably leads to issues such as lack of punctuality or attendance, lack of commitment and the resulting dropout rates, communications issues, and challenges around responsibilities and ownership of the work. Also, the number of team members was identified as a controversial issue with some participants preferring smaller groups and others preferring larger groups. Unfortunately, as the Ready Programme was non-credit bearing and participation was voluntary, high numbers of dropouts could only be avoided through the introduction of negative consequences or penalties; for example, non-attendance, dropout or unsuccessful completion of the programme could be reported in references that are subsequently provided. This could lead to higher commitment of students, but would be a relatively draconian measure.

Issues around communication, could be solved by providing all participants with a platform for communication, for example using Blackboard Learn (or Blackboard Learning Management System), a virtual learning environment (VLE) and course management system which can allow the facilitators to post materials and publish announcements, while simultaneously providing functions for group discussions and file uploads. As some students did not have a Facebook account or other social media accounts, this would be a preferred solution for communication between group members, facilitators and their groups, as well as the programme board and facilitators, as most English universities already use Blackboard Learn (or an alternative VLE). This would also be useful to help students familiarise themselves with Blackboard Learn as they will use this system throughout their UG academic career. The maintenance of discussion boards on Blackboard Learn could also provide additional support for students outside of the regular sessions and meetings.

Further, some participants suggested building teams with students from the same course in order to facilitate meeting times as they would share similar teaching schedules. This is a controversial topic as many students particularly liked the collaboration with students from other backgrounds and study fields. Also, the decision to mix students from different colleges/schools in the university was made by the Programme Board as diversity can increase learning and enhance teamwork.

5.7.2 Practical Factors: Issues and Recommendations

The students reported various issues related to the programme itself, such as: general organisational issues; time and duration of the programme; project themes, tasks and activities; and workload and assessment criteria. All these issues will be briefly described and recommendations and suggestions provided on how to overcome them.

The recruitment process for participants of the Ready Programme took place after students had accepted their study offer and provisionally registered for the academic year. All commencing students were contacted and invited to participate in the programme. Then, follow-up recruitment emails were sent out by the individual departments and schools. However, after successfully registering on the programme, no further information was provided until the start of the programme. Also, the information provided was criticised by students as being insufficient. Therefore, it is highly recommended to regularly communicate with participants before and throughout the programme. This can be done through emails, and the use of Blackboard Learn, as well as by using posters and flyers or direct communication through the facilitators. It is important to deliver information in a concise way and to find the balance between providing enough information while not overloading participants. This is of particular importance for students in the first year as they are often already overwhelmed with the transition to university life. Participants should be informed about key dates and deadlines, as well as special events such as guest speakers and presentations. Also, supporting material (for example, information about the eight targeted attributes) should be circulated to students.

Within the context of time and duration of the programme, 20 participants said that this was one aspect they liked the least about the programme and 15 students provided suggestions regarding this issue. Most criticism was regarding the day (Monday) and the late timing of the sessions (5-7 p.m.). This particular time-slot was chosen by the Programme Board as it was the only available time when all schools and departments of

the university were able to block regular university modules; also, few extra-curricular activities offered by societies and the Students Union took place at this time. This encouraged participation in the Ready Programme as most students did not have to sacrifice other activities. However, based on participants' feedback, this time slot was too late, specifically for students living off campus and having to travel home after the sessions.

In order to accommodate more students, the programme could be offered at various times and days; for example the programme could be divided into morning and evening sessions. This would provide students (and facilitators) with the choice to sign up for the session that suits them most. Most participants who commented on the duration of the programme wished that it had been longer so that the project could be developed in more depth and detail. One suggestion, of course, would be to simply extend the programme's duration. However, it might be more beneficial for the students, and the outcomes of the programme, if the students were given more time to fulfil the tasks without scheduling meetings (i.e., after the 10 sessions students are given a few extra weeks to complete the project and prepare the presentation before returning to the final session and presentation).

To not favour students of any specific discipline or study field, the project themes were chosen from a variety of topics and were rather generic so that no specialised knowledge or skills were required. However, rather than seeing this as an opportunity, many students indicated that the topics were too wide, irrelevant to their degree course, and that tasks and guidelines were not clear enough. Students often seemed overwhelmed with the loose boundaries given for the fulfilment of tasks and wished to have clearer guidance on how to address the tasks. The approach taken was deliberate to encourage the learning process and support the development of skills such as independent learning, critical thinking and problem solving. Rather than limiting the students in their approaches and creativity to solve the tasks through setting more specific guidelines, facilitators should be trained to support the students in approaching such tasks. Students should be made aware that this is part of the learning and that the challenge of loose guidelines provides an opportunity for exploration and development. However, some limitations or constraints to the project could be given, for example a time-frame or budget for the execution of the project. This would support the targeted development of financial data analysis, as well as organisation and planning. Also,

project themes directly related to university life or the student experience could be more entertaining and engaging for students; specifically if the projects are 'real' projects (i.e., actual implementation by the university could be a possibility). Through this, students would feel a higher sense of responsibility and commit more to the project. Also, in order to provide students with more structured learning, specific tasks and activities should be implemented by the facilitator. These activities could be completed at the beginning of each session in order to familiarise the students with one of the attributes and to support team building and skills development[8].

Another issue for students was the workload of the programme and the consequences on their time-management for their degree course. The various written and oral assessments for the programme (group report, individual reflection paper, and group presentation) meant that students had to work together closely as a group but also had to show understanding on an individual level. Alongside the workload for their regular courses and modules, many students struggled to balance their efforts. The high drop-out rates throughout the programme also increased the workload for the remaining team members. Additionally, many teams had difficulties in organising their time for the programme outside the regular sessions because team members had different timetables, schedules and course deadlines. Therefore, it is suggested to give the students sufficient time during the sessions to write their report and prepare their presentation. Another solution would be to change the assessment criteria or to spread out the various assessments throughout the programme; for instance, rather than having a final presentation students could be asked to present their findings during each session, either individually or in smaller sub-groups. Individual development or reflective reports could also be handed in to the facilitators on a weekly or bi-weekly basis rather than just at the end of the programme. Through this approach, struggling students could be identified earlier and approached directly, and drop-out might be prevented.

[8] The Ready Programme was also conducted in the second term of the academic year. Some suggestions were implemented (e.g., the sessions were more structured, as the first hour often involved an activity and the second hour of the session was dedicated to the project). This received positive feedback from the students, but also led to a lack of time to work on the project; therefore, students had to dedicate more time outside the regular sessions to the project.

5.7.3 Additional Skill-enhancing Activities

While there are already suggestions in the literature on how to enhance student employability[9], suggestions and recommendations initiated by the data are outlined below. Further, confidence was frequently mentioned throughout both studies, for example within the context of what students hoped to gain or had gained, and in relation to suggested additional activities. Hence, it is crucial for HEIs to develop activities that can develop confidence in students.

Unsurprisingly, many students claimed that work experience would enhance their employability and confidence. However, the focus of this research is on enhancing employability for students generally, including those who are not undertaking a placement year. Therefore, alternative ways have to be found to develop employability skills in these students. Employability programmes such as the Ready Programme are a useful first step towards the support of employability development but clearly have to be expanded to reach more (if not all) students. This could be done through the targeted focus on specific study fields or career paths, as students might perceive it as more beneficial and appealing if programmes like this are less generic and more closely related to their degree.

Further, students would like to have more skills programmes throughout their university experience to increase the confidence in these skills and to focus on specific skills, such as public speaking or time-management. This can be provided in two ways: first, within the regular curriculum; and, second, through extra-curricular workshops and seminars. In both cases, it is crucial to promote the programme and inform the students about the importance and benefits of attendance. Research has shown that students are more motivated by the vocational aspects of their studies than the academic aspects (Voss *et al*., 2007). Therefore, incorporating skill sessions in each course module could be of benefit for the module itself (Crebert *et al*., 2004). Academics should see this as an opportunity to include topics in the curriculum that can prepare students for later employment. This can be done through various modes, such as skills sessions, assessment that are related to employment in the field of study, the use of real-world examples and case studies, or the invitations of guest speakers from the field.

[9] Several studies have suggested actions to enhance graduate employability. For an overview of different initiatives offered by HEIs to enhance employability see, for example, Green *et al*. (2009); Mason *et al*. (2009); Pool and Sewell (2007); and Dearing (1997).

Closer links to employers was desired by many students and various suggestions were made, for example: visiting local companies for a day; talks from professionals (in general and in specific fields); and career-speed dating. For the career-speed dating, the students suggested inviting many different employers to talk to a group of interested students, answer questions and even take CVs for further consideration. This could be extended to benefit employers as well as they may use the approach to identify appropriate candidates for placements and other vacancies. Considering the signalling model discussed in Section 5.2.3, it is crucial for an improved relationship between HE and employers to involve employers in the curriculum and inform them about students, programmes and qualifications (Cai, 2013).

Interview and applications support is another big area in which students would like to be supported by their HEIs and which would lead to improved employability and confidence in this area. Students suggested that they would like to participate in CV writing workshops, interview workshops, and mock interviews or mock assessment centre exercises. While many HEIs already offer such opportunities, it is important to advertise these services actively and promote them to students in each year, rather than to students in their final year or to only second year students who apply for placements.

The next section will pull together the key outcomes of the second study and clarify, based on the outcomes, why confidence is an important issue within student employability and should be explored further.

5.8 Conclusions and Contributions

As mentioned, the main problem in researching the field of employability is the lack of empirical studies in this area (Cai, 2013; Tymon, 2011; Green *et al*., 2009; Barrie, 2004; Brown *et al*., 2003). The new government regulations on university fees and funding has put English HEIs under increasing pressure from all sides – the competition, students, employers and society at large. HEIs have to ensure that they produce 'ready workers' who are directly employable for the long term and have the ability to cope with, and grow within, a rapidly changing and highly competitive and challenging work environment. Guaranteeing that graduates possess transferable skills is not sufficient anymore; universities have to ensure that graduates have long-term career management skills and that they can demonstrate their abilities with confidence. HEIs have started to enhance employability amongst students, but, nonetheless, students still fail to transfer

and apply the skills in a real-world context (Crebert *et al*., *2004*). The research has shown that regardless of the motivations to participate in an employability programme, students know what they are expecting from such programmes and which skills they want to learn. Nevertheless, students stress the importance of increasing their confidence in applying the learnt skills and demonstrating them.

There are recent discussions of whether confidence is just a 'by-product' of university processes or a result of strong teaching practices (Priestley and Biesta, 2013). Regardless, previous research (Crebert *et al*., 2004; Harvey *et al*., 1997) and the research presented in this chapter show the importance of confidence for students' self-belief and their employability. Also, research has shown that students who undertook a placement have higher confidence levels in relation to their application prospects than students without placement experience (Brooks, 2012). However, as discussed before, not all students undertake a sandwich course. Therefore, it can be strongly suggested to incorporate into the university experience the teaching or development of confidence in order to achieve higher employability, as well as better results in all aspects of university outcomes (Cai, 2013; Priestley and Biesta, 2013). The current research, therefore proposes to reinforce the teaching of confidence either through a change of the pre-18 national curriculum or through extra-curricular activities provided by the university, such as the Ready Programme discussed in this study.

Further, students desire to have the opportunity to improve their job applications skills through better CV writing and mock interviews and assessments. Knowing what is expected from them during the application process and in their work life in general, seems to be crucial for students and it might be implacable that it will make graduates more confident in their application and employability. Hence, this research suggests that rather than just focusing on GGAs, it is essential to improve the career management skills of graduates and to focus specifically on boosting the students' confidence.

While the methodology used in study 2 exhibits some limitations, such as the focus on students from only one university, undertaking similar research at other universities who have similar employability initiatives could improve the validity of the findings and explore the topic more in-depth. Also, conducting further research with students to evaluate their perception of the success of such programmes would give some indication of how to design employability programmes from the point-of-view of students. Therefore, this research could be expanded across universities, and/or

longitudinal studies could be implemented, in order to achieve a better understanding of what HEIs can do for their students, with the aim to achieve improved employability and better job prospects.

5.9 Chapter Summary

Student employability is an increasingly important issue to students in England owing to the introduction of higher tuition fees and the resulting consumerism of HE. As a consequence, HEIs are under increasing pressure from students and employers to produce graduates who are ready to be employed and contribute to the labour market. At the same time, employers have increasing demands on students and expect them to be equipped with all the necessary technical and transferable skills. Therefore, HEIs have to support students in the development of such employability skills. Various approaches have been introduced by HEIs to develop these skills, but there is still a lack of empirical research in the field of student employability and also a lack of understanding of the student perspective.

The study presented in this chapter investigated an employability programme introduced by an English university. Specifically, the research explored the motivations, expectations and satisfaction of students in relation to the programme. 136 students participated in the pre-programme survey and all 97 students who successfully completed the programme participated in the post-programme survey. While students had different motivations and expectations about the programme, the majority of students were satisfied with the outcomes and particularly enjoyed the teamwork and networking opportunities. Nevertheless, suggestions have been collected on how to improve the programme and further skills development. It has been recommended to incorporate skills development in the regular curriculum and offer further extra-curricular skills sessions and training.

As an outcome of the research the concept of confidence has been identified as a crucial issue for students within the context of employability and skills development. This will be explored in more detail in a next study (see Chapter 6).

CHAPTER 6:
Study 3: The Role of Confidence within Student Employability

6.1 Introduction

The first study undertaken during the course of this research explored concerns and expectations of commencing undergraduate students. Amongst other issues, the topic of employability was identified as a key concern for students. Particularly since the introduction of annual undergraduate fees of up to £9,000 in England, students are increasingly apprehensive about the possibilities and opportunities available to them after graduation (Tymon, 2013; BIS, 2011). Consequently, as an outcome of the first study, it was argued that HEIs should increase their efforts in supporting the development of employability skills in their graduates in order to meet the demands of graduate employers, students and society.

A second study then investigated the perceptions of participating students with respect to an employability programme offered at a pre-1992 university in London, UK. The research measured and evaluated the expectations and motivations of students in relation to programme participation, as well as the outcomes and their satisfaction levels after the programme's completion. Within this study, 'confidence' emerged as a term frequently mentioned by students in various contexts.

The third study (presented in this chapter) therefore seeks to explore the concept of confidence within the context of student employability and employability skills development in HEIs. In order to achieve this, the remainder of the chapter will first introduce the necessary theoretical background to this study (Section 6.2). The concept of confidence will be explained in general, and specifically within an academic context. Further, confidence within student employability and the development of confidence in students will be explained. Section 6.3 will highlight the research aim and objectives and Section 6.4 will describe the methodological approach used. Within this section, existing confidence measures will be introduced, the data collection process (through interviews) and thematic analysis as a data analysis method will be discussed. Section 6.5 will then present the collected data and Section 6.6 will provide a discussion of the

findings and provide recommendations to HEIs on how to support employability and confidence development in their students. Finally, Section 6.7 will highlight the conclusions and contributions of this study and Section 6.8 will provide a brief summary of the chapter.

6.2 Theoretical Background

As discussed in Chapter 5, employability as an outcome of a student's HE experience is favourable for the graduate him/herself, for the HEI, and for wider society, owing to the associated economic benefits such as increased and improved effectiveness, productivity and competitiveness (Jackson, 2014). Having previously discussed employability, the following section will focus on confidence as one of the factors that greatly impacts graduate employability and skills development. The concept of confidence and related constructs will be discussed, the role of confidence within skills development and employability will be explained and different approaches to enhancing the development of confidence within students will be analysed.

6.2.1 The Concept of Confidence and Related Constructs

Confidence, as a cognitive construct, can influence an individual's behaviour, decisions, performance and motivations; owing to its impact, confidence is a term frequently used in a variety of contexts. To study confidence in the context of this research, it is important to understand what is meant by the term and how, and to what extent, it influences student behaviour. Some researchers argue that confidence is a concept which cannot be defined and theorised accurately (Santero and Westerlund, 1996; Gigerenzer *et al*., 1991); nevertheless, most scholarly definitions relate confidence to an individual's belief about abilities and attributes in the context of a personal aspect or specific situation. This is referred to as situational or state confidence (Eldred *et al*., 2005), in contrast to overall (self-) confidence, indicating that an individual's confidence will depend on the given situation or required action and is not equal or consistent at all times. Confidence is based on an individual's self-assessment and can be influenced by many internal (personal) and external factors. As such, confidence is a malleable construct; after a specific experience, a successful outcome or a failure, or the receipt of new information and/or feedback, an individual's belief about his/her abilities can be updated and, as a result, confidence levels may change (Mobius *et al*., 2011).

According to Norman and Hyland (2003), there are three different elements within confidence: cognitive – an individual's knowledge about his/her abilities; performance – the actual ability to do something; and emotional – the sense of comfort and assertiveness in relation to the other two elements. To develop and improve confidence, all three elements have to be cultivated and enhanced. In his research, Stajkovic (2006) argues that the role of confidence is to reveal and facilitate an individual's potential by shaping the belief about different abilities. He proposes the following equation: "Performance = Skill x Desire x Core Confidence" (p.1212), meaning that, in order to perform, a person has to possess the necessary skills to fulfil an action, the desire to motivate an action and the confidence about his/her own abilities. If any of the three elements is missing or under-/over-represented, outcomes can be impacted negatively. Consequently, over-confidence and under-confidence can result in negative outcomes and consequences (Mobius *et al*., 2011; Stajkovic, 2006; Pajares and Schunk, 2001).

This study will focus on situational confidence in the context of employability and skills development; however, overlaps to other related constructs are possible. Therefore, it is important to note that, while lay people might label various cognitive concepts as confidence, the literature clearly distinguishes between such closely related constructs (see Appendix E.1). For instance, confidence and self-efficacy are very closely related but not the same. From a theoretical perspective, confidence is a "nondescript term that refers to strength of belief but does not necessarily specify what the certainty is about" (Bandura, 1997, p. 382), while self-efficacy describes an individual's believed capabilities of a certain level of achievement regarding a certain performance or action (Bandura, 1977a). Therefore, both terms describe the belief in one's ability, but self-efficacy specifies the level or strength of that belief. Situational/state confidence and self-efficacy, therefore, represent similar (if not the same) concepts and the terms will be used interchangeably in this research. After introducing the concept of confidence and related constructs, the following sub-section will describe academic confidence (i.e. confidence in an educational and academic setting, as the research investigates confidence within students and from a student's point-of-view).

6.2.2 Academic Confidence

There is a significant corpus of literature on self-efficacy and related concepts in the academic context (e.g., Nicholson *et al*., 2013; Sander and Sanders, 2009; Pajares and Schunk, 2001; Pajares and Miller, 1994; Bandura, 1986; Shavelson *et al*., 1976), which

shows that self-efficacy has a strong impact on academic behaviour and outcomes. However, the exact relationship to specific subject matter, or a deeper understanding of how and why self-efficacy has such an impact, has not been researched sufficiently (Nicholson *et al*., 2013; Pajares and Miller, 1994). Such a research focus is particularly difficult as all self-concepts seem to interplay in the behavioural context and the constructs are difficult to isolate and conceptualise. The literature often uses academic confidence and academic self-concept interchangeably, but the key difference is that academic confidence relates to specific contexts and situations, while academic self-concept refers to general competence assessment in academics. A hierarchical model developed by Shavelson and his colleagues (1976) shows that academic self-concept plays a significant role in general self-concept, as well as in specific sub-areas of academic self-efficacy. For the purpose of this study, it is important to understand that general self-confidence is the sum of different types of (situational) confidence. Therefore, it can be assumed that confidence within employability should also not be seen in isolation.

Further, academic self-efficacy not only enhances academic achievement but also has wider implications and generates a wider, more general skills set. For example, if a student believes that juggling assignment deadlines involves time-management skills and accomplishes this successfully, the student's confidence in relation to time-management will enhance, too (Pajares and Schunk, 2001). This concept is referred to as academic behavioural confidence and refers to cognitive judgements made in relation to academic situations (Sander and Sanders, 2009). However, rather than evaluating subject-related ability, academic behavioural confidence describes the ability in respect to study-related behaviours (e.g., ability of independent study, attendance at classes, or discussion of material). Despite its impact and importance, there are gaps in the literature in this field and the ability to predict outcomes and achievement through the observation of academic behavioural confidence has not sufficiently been investigated (Nicholson *et al*., 2013).

In summary, academic experiences can lead to soft outcomes, such as confidence or self-esteem, but also other intangible outcomes, such as employability skills (e.g., problem-solving, organisational, and time-management skills). Hence, the following section will build on the previously-discussed topic of student employability and further investigate the relation between confidence and student employability.

6.2.3 Confidence and Student Employability

Study 2 indicated that confidence is relevant to students in the context of employability. To better understand the role of confidence within employability, this sub-section will explain how confidence fits into the construct of employability and justify why it is important to support the development of (general, academic, and professional) confidence in students.

Most employability skills are closely related to cognitive psychology; therefore, it is not surprising that confidence, self-efficacy and related cognitive concepts play a crucial role in the development and demonstration of these transferable skills. Nevertheless, while some research focuses on the direct and indirect impact of emotional and cognitive skills on employability (Dacre Pool and Qualter, 2013; Dacre Pool and Sewell, 2007; Vandervoort, 2006), there is still room for exploration and clarification.

Professional confidence, just like academic confidence, refers to an individual's belief in his/her ability to cope with the requirements of professional life (Sander and Sanders, 2009; Brown *et al*., 2003). A confident graduate is more likely to obtain and display those skills and attributes required for a successful university experience and the future labour market (Dacre Pool and Qualter, 2013; Nicholson *et al*., 2013; Stajkovic, 2006; Pajares and Miller, 1994). Hence, in today's rapidly changing and highly competitive work environment it is crucial for graduates to develop and optimise their cognitive behaviour. Some researchers even argue that emotional and cognitive skills are more crucial for positive performance outcomes than task-related technical skills (Gundlach *et al*., 2003) and confidence is shown to be an antecedent of entrepreneurial behaviour (Boyd and Vozikis, 1994 in Zhao *et al*., 2005). Thus, the development of emotional and cognitive skills within the enhancement of academic and employability skills is crucial for a student's employability and should be embraced by HEIs (Dacre Pool and Qualter, 2013; Dacre Pool and Sewell, 2007). In this context, Figure 6.1 provides an overview of the different factors shaping the employability of graduates (Dacre Pool and Sewell, 2007). The authors argue that each component is vital and that student employability cannot be achieved if any of the elements is missing. The model also depicts the direction of interaction within the components.

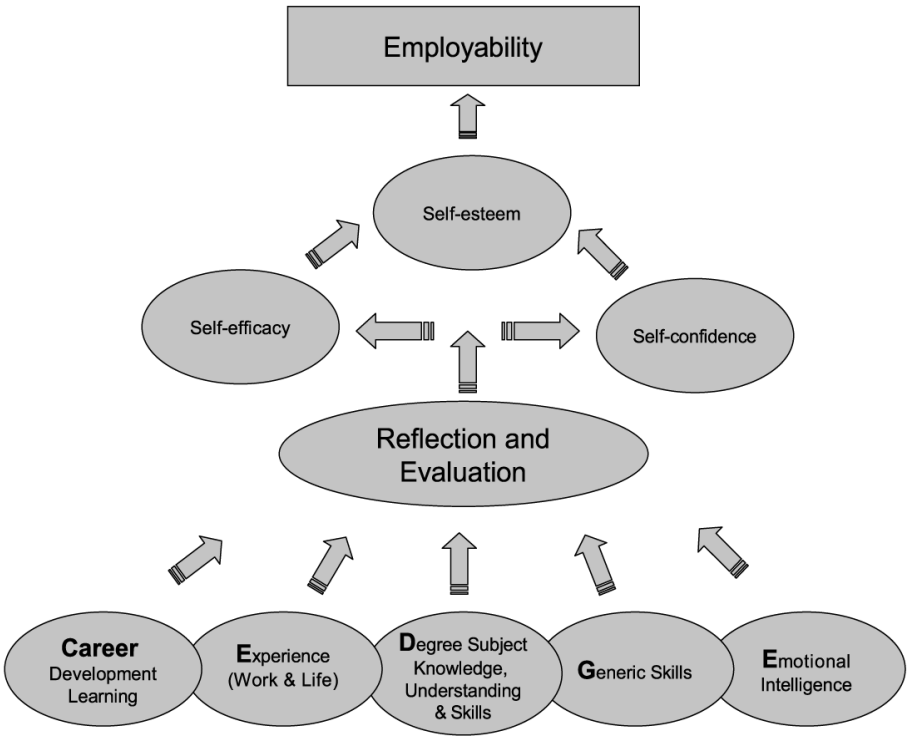

FIGURE 6.1: THE ESSENTIAL COMPONENTS OF EMPLOYABILITY (DACRE POOL AND SEWELL, 2007, P. 280)

In conclusion, research has shown that the mastery of emotional and cognitive constructs is imperative for employability skills development and performance and, hence, employability itself. It has also shown that improved employability can result in personal and economic benefits for students, HEIs, employers and society. Encouraging and supporting the development of academic and professional confidence is therefore of benefit to all stakeholders (Laird, 2005; McCabe and Timmins, 2003; Burnard, 1992). The topic of student confidence has, though, not been extensively investigated and existing research shows that universities do not fully understand how cognitive constructs can be taught and developed in the HE setting. Therefore, HEIs are not exploiting the opportunities of developing and enhancing cognitive and emotional abilities in students in general – and in regards to the development of employability skills, specifically – and research in this field is limited (Dacre Pool and Qualter, 2013, 2012; Dacre Pool and Sewell, 2007; Brown *et al*., 2003). The following section will discuss how this development can be achieved within the HE setting.

6.2.4 The Development of Confidence in Students

Research has shown that employability skills are directly influenced by emotional and cognitive competences (Dacre Pool and Qualter, 2012). Hence, to increase students' employability it is not only important to teach employability skills but rather to develop a student's overall confidence and situational confidence in relation to those skills. In

this sub-section, approaches are introduced on how to support confidence building, based on relevant theories.

One of the most used theories in cognitive-related research is the social cognitive theory (SCT). SCT, a subset of cognitive theory that emerged primarily from the work of Albert Bandura (1986, 1977b), stresses the importance of others for an individual's learning and development. SCT has been applied in various areas, such as organisational behaviour, behaviour and motivation in sports, and mental health, as well as in the academic context, such as for classroom behaviour, academic motivation, learning and performance (Schunk, 2001; Pajares, 1996). It focuses on three basic assumptions in regards to learning, development and behaviour. First, personal, behavioural and environmental factors influence one another and are constantly interacting; consequently, an individual's behaviour is a result of this constant interaction between cognitive, behavioural and situational factors (Bandura, 1986). Second, individuals have the ability to change their own behaviour and influence their environment through goal-setting, self-reflection, and self-regulation. (Bandura, 2001). Third, learning and the demonstration of learning (i.e., behaviour) are two distinct processes and are not necessarily performed 'back-to-back'. This supports the assumption that learning takes place over time and involves other cognitive and behavioural factors, such as prior knowledge, cognitive skills levels, and the influence of values and morals. Allied to SCT, motivation theory can be used to explain behaviour in relation to confidence, in so far that ability and effort will impact on performance. Usually, ability and effort will complement one another; more specifically, the higher the confidence in one's abilities, the higher the effort committed to an activity/behaviour (Bénabou and Tirole, 2002). Thus, it can be concluded that with increasing self-confidence, an individual's motivation increases. This is important because motivation directly influences performance (Stajkovic, 2006) and positive performance outcomes can reinforce increased confidence (Bandura and Adams, 1977).

Based on SCT, overall self-efficacy of an individual can be shaped through the following interventions: (1) role modelling and vicarious experience; (2) enactive mastery; (3) social persuasion; and (4) self-assessment (Zhao *et al*., 2005; Bandura, 1986). Role modelling and vicarious experience refer to the observation of behaviour, rather than the active fulfilment of a behaviour/task as suggested through enactive mastery (mastery experience), which describes the actual practice of a task or skill.

Social/verbal persuasion describes the feedback given to individuals. And self-assessment or physiological state refers to the individual's feeling during a task/behaviour, such as anxiety, happiness or nervousness and how he/she can cope with such feelings. Through the development of these four factors, confidence levels of an individual can be positively impacted.

To recap, there are three elements within confidence: cognitive, performance and emotional and all three elements have to be mastered in order to improve confidence (Norman and Hyland, 2003). These three elements can be impacted through one or more of the following interventions: role modelling, enactive master, social persuasion or self-assessment. This is in accordance with Stajkovic (2006), who suggests that performance is the outcome of skill, desire (motivation) and core confidence, as supported by motivation theories. Figure 6.2 provides a summary of all of the discussed concepts.

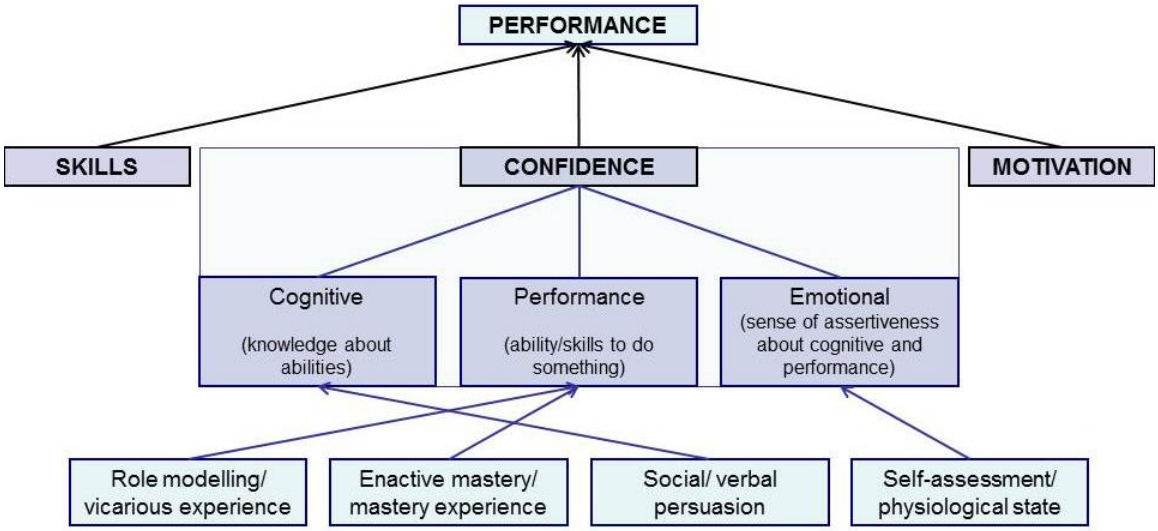

FIGURE 6.2: THE FACTORS INFLUENCING CONFIDENCE AND OVERALL PERFORMANCE

Implementing suitable and effective teaching methods for emotional and cognitive abilities is an on-going challenge, especially in the light of the current difficulties of mass education. Researchers argue that cognitive and interpersonal skills cannot be taught in a traditional classroom setting and methods and strategies have to be developed which allow a more experiential way of learning. The literature proposes various strategies for HEIs to develop and enhance confidence and related constructs in students, for example: self-assessment and assertiveness development (Dacre Pool and Qualter, 2013; Burnard, 1992); knowledge of emotional functioning and emotion management strategies (Dacre Pool and Qualter, 2012; Zhao *et al*., 2005); student

involvement with staff and peers (Laird, 2005); engagement in extracurricular activities (Stajkovic, 2006); development of practical skills (Brown *et al*., 2003) and some additional strategies, such as feedback; proximal and specific goal-setting; performance-related rewards; simulation and role play (Zhao *et al*., 2005; Brown *et al*., 2003; Pajares and Schunk, 2001). While these strategies can be used to develop academic confidence in students, it is important to investigate whether these strategies will also help to develop professional confidence within the concept of employability.

Hence, while the importance of confidence for employability is implied, the exact role of confidence for skills development is still disputed. Further, the literature provides approaches and strategies for the enhancement of confidence, but supplies few practical suggestions for how these strategies can be implemented by HEIs and how they are perceived by students. These gaps lead to the aim of this study 3, to explore confidence development and the role of confidence for employability from a student perspective. This is further discussed in the following section.

6.3 Research Aim and Objectives

In addition to the previously discussed gaps in the literature, there is a lack of research in regards to the enhancement, measurement and role of HE and HEIs for the development of confidence, specifically within the context of student employability. This might partially be owing to the intangible nature of, and the difficulty in defining, measuring, and quantifying, the concept of employability and the related cognitive skills. Hence, study 3 aims to further explore the association between confidence and employability and to develop an understanding and a set of suggestions of how to support the enhancement of situational confidence from a student's perspective. The research presented in this study supports the claim that in order to enhance academic and professional performance, the confidence levels of students have to be developed and increased, for example through authentic experiences (Bandura, 1997, 1986, 1977a).

Nevertheless, despite its significance, HEIs still struggle to embrace the development of cognitive skills in students within the curriculum. Considering the changing demands of students, employers and society in general, HEIs are now under increasing pressure to develop employable graduates. Further, to improve outcomes and performance, HEIs should not only seek to develop employability skills in graduates, but also the

confidence of students in regards to these skills. The present research, therefore, aims to investigate how HEIs could support the development of self-confidence with respect to employability skills. A student-centred approach was chosen, as an underlying argument of this thesis is that students have altered expectations owing to the recent changes and in the sector and the increasing consumerism of HE in England.

The objectives of study 3 were therefore:

- To explore students' awareness, perceptions and understandings of the concepts of employability and confidence;
- To investigate what role confidence plays for students in their employability (skills) development; and
- To develop a set of recommendations based on students' suggestions of how HEIs can support students in their confidence and employability development.

The next section will discuss the methodological approach used to achieve the stated research aim and objectives.

6.4 Methodological Approach

Research has suggested that confidence and related emotional and cognitive constructs are essential for student employability, as well as academic and professional performance. Nevertheless, the constructs of employability and confidence are ambiguous, owing to their intangible nature. Additionally, strategies have been proposed to enhance confidence development in students; however, these are often of little practical value to HEIs (Green *et al*., 2009). To further investigate these issues in-depth and from a student perspective, semi-structured interviews with undergraduate students at all levels of study (level 1, 2, and 3) and from different disciplines were conducted and analysed through thematic analysis.

The following sub-sections will briefly discuss how cognitive constructs are typically measured and justify why a qualitative research approach was taken. Then, the data collection process, using semi-structured interviews, and the research sample will be described. Finally, thematic analysis will be introduced as the method of data analysis. Thematic analysis is frequently used in interpretivist research as it allows to deliver findings and their interpretations easily to others and supports the structuring of large amounts of data in a systematic manner that facilitates understanding and interpretation (Braun and Clarke, 2006; Onwuegbuzie and Leech, 2005).

6.4.1 The Measurement of Cognitive Constructs

Owing to their intangible nature, cognitive constructs, such as confidence and self-efficacy, are often difficult to measure, observe and quantify (Santero and Westerlund, 1996). The same is true of employability skills, such as critical thinking, organisational skills and resilience, which may well explain the lack of empirical research in this field (Dacre Pool and Qualter, 2013; Wittekind *et al*., 2010). Generally, two measurement methods are used with respect to cognitive constructs: performance-based measures are used to measure the state-level of the construct (e.g., situational confidence) and self-report measures are used to identify the trait-level of constructs (e.g., general self-confidence). The concepts of interest (i.e. confidence and employability) are often measured through scales, such as: the emotional self-efficacy scale (Kirk *et al*., 2008); self-perceived employability scale (Rothwell and Arnold, 2007); measure of perceived employability (Berntson and Marklund, 2007); and perceived employability scale (De Vos and Soens, 2008); or various confidence scores (Brown *et al*., 2003; Gigerenzer *et al*., 1991; Petr, 2000). In an academic setting, the academic behavioural confidence (ABC) scale (Sander and Sanders, 2009) or other academic self-efficacy and academic self-concept frameworks (Nicholson *et al*., 2013) are used for measurement.

These scales are useful to measure (self-perceived) skills levels and understandings; however, they do not allow for an in-depth investigation of the underlying concepts, meanings and relationships. Therefore, Santero and Westerlund (1996) suggest that, for a deeper understanding, qualitative studies are necessary in this context as they aim to provide richer data and allow profound interpretations. Qualitative studies are often argued to be better than quantitative research, specifically when there is limited knowledge about the issue(s) of interest, because new aspects underlying the issue(s) can be discovered (Hunter *et al*., 2007). Consequently, interviews rather than scales were used as the qualitative research tool in study 3 to gather in-depth data about the issues at hand. The data collection process will be described in the next sub-section.

6.4.2 Data Collection Process: Semi-structured Interviews

The broad approach of study 3 was exploratory, primarily motivated by the outcomes of the previous studies, and sought to understand reality through an investigation of participant interpretations (Bryman and Bell, 2011). Semi-structured interviews were chosen as data collection method as this allows the researcher to question and discuss issues with participants, which is a useful technique for collecting data with great depth

and insight (Gummesson, 2005). In semi-structured interviews, a set of questions is prepared prior to the interviews, but the interviewer has the flexibility to change the order of questions, to re-phrase questions or to ask additional questions to pick up on interesting or new points, to clarify certain points or to encourage discussion.

The initial set of questions for the interviews (see Appendix E.2) were prepared based on the literature in the field and in alignment with the research objectives. They were broadly divided into the following topics: definitions and perceptions of employability, employability skills and confidence; self-perceived confidence measures; the role of confidence within employability; and confidence development in HE. Further, participants were asked to complete an information form (see Appendix E.3), which solicited basic demographic data and additional information, such as year of study or prior work experience. These data were used throughout the analysis process for cross-case analysis (Miles and Huberman, 1994).

After a pilot study, some of the initial questions were slightly modified, mainly in terms of wording rather than content. For this study, face-to-face interviews were chosen as the semi-structured approach is most easily implemented person-to-person. The physical interaction between the interviewer and interviewee allows for additional flexibility as the interviewer can adapt the language, simplify or clarify questions and prompt better discussion. A total of 22 interviews were conducted during November and December 2014 at an average duration of 24 minutes. Small sample sizes are typical for qualitative research and McGivern (2003) suggests that a simple size of 20 to 30 participants is appropriate to reach saturation and understand the collective views of interviewees on a topic. Additionally, research in the field using the same research method has conducted research with similar sample sizes (Brooks, 2012; Chapleo, 2010; Clewes, 2003).

The participants for the study were selected through a snowball approach (Bryman and Bell, 2011). In this approach a participant suggests other individuals from their own network for participation. This technique increased the number of participants within a short time frame. Initially, all undergraduate students enrolled at Brunel University London were considered as participants; however, the researcher then ensured that students from all levels, as well as male and female participants were equally represented (see Appendix E.4). Therefore, 11 participants were male and 11 participants were female; seven participants were first year UG students, seven were in

their second year of their studies and eight were in their final year. There was also representation of different enrolment statuses: seven participants were EU students; nine students were from the UK; and six participants were international students. 10 participants financed their studies through a student loan, nine were self-funded and the remaining students either had a scholarship or a combination of personal funding and scholarship. 11 students lived on-campus and 11 students lived off-campus. Only two of the participants had no work experience of any type. 12 students were members of a society at the university and 12 students were participating in other extra-curricular activities.

Participation in the research was anonymous and voluntary and students were informed about the research prior to the interviews through a participant information sheet (see Appendix E.5) and had to confirm their participation in a participant consent form (see Appendix E.6). Ethical approval was gained prior to the study commencing (see Appendix B.3).

6.4.3 Qualitative Data Analysis through Thematic Analysis

The interpretivist researcher aims to make interpretive, narrative conclusions on the basis of the collected data (Onwuegbuzie and Lech, 2005). For this purpose, the interviews were voice recorded and transcribed verbatim (for an example of a transcribed interview see Appendix E.7) and then analysed following the set of principles of thematic analysis and exploratory cross-case analysis (Braun and Clarke, 2006; Boyatzis, 1998; Miles and Huberman, 1994; Burnard, 1991). These methods imply that coding should be conducted based on the identification of commonalities or trends in the responses and that cross-case analysis should be conducted through the use of the additional participant variables collected. Within interpretivist research, thematic analysis allows the researcher to develop social and psychological interpretations of data, to communicate them effectively, and to generate hypotheses (Boyatzis, 1998). In addition, the researcher used memo writing which is a common practice in interpretive research (Erickson, 1986). Memo writing encompasses the write-up of ideas and interesting observations as they occur to the researcher throughout the conduct of the interviews. These memos can then facilitate the analysis process and the development of categories and relationships.

The aim of the analysis was to create a systematic and detailed recording of the themes addressed in the interviews and to link these themes through the development of

categories. Thematic analysis was therefore used as it "is a method for systematically identifying, organizing, and offering insight into patterns of meaning (themes) across a data set" (Braun and Clarke, 2006, p.79). The six stages of thematic analysis suggested by Braun and Clarke (2006) were followed (see Table 6.1).

Phase	Description of the process
1. Familiarising yourself with your data	Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas
2. Generating initial codes	Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
3. Searching for themes	Collating codes into potential themes, gathering all data relevant to each potential theme.
4. Reviewing themes	Checking if the themes work in relation to the coded extracts (Level 1) and the entire data set (Level 2), generating a thematic 'map' of the analysis.
5. Defining and naming themes	On-going analysis to refine the specifics of each theme, and the overall story the analysis tells, generating clear definitions and names for each theme.
6. Producing the report	The final opportunity for analysis. Selection of vivid, compelling extract examples, final analysis of selected extracts, relating back of the analysis to the research question and literature, producing a scholarly report of the analysis.

TABLE 6.1: PHASES OF THEMATIC ANALYSIS (BRAUN AND CLARKE, 2006, P.87)

The overall process began with the reading and re-reading of the interview transcripts in order to gain a holistic overview of the main themes discussed by the participants and to look for patterns of meaning and issues of potential interest in the data. This allowed the classification of similar materials and insights to be captured. The interview data were then coded (for an excerpt of the coding scheme see Appendix E.8) and a set of themes was identified in relation to the theoretical concepts described in Sections 5.2 and 6.2. According to Boyatzis (1998) there are different approaches to develop themes: theory driven, prior research driven and data driven. This study used a combination of the prior research-driven and data-driven approaches to thematic analysis. The researcher gained knowledge about the different topics of interest (i.e., student employability and confidence) through reading relevant literature and then focused on the important issues within these topics, such as employability skills development and confidence development in HE. The interviews were conducted based on the prior research outcomes of other authors. Using a data-driven approach, the process of coding was then completed in different phases in order to gather and collate related code, whereby the categories were derived directly from the data.

Further, a so-called conversion design was applied to a certain degree, in which qualitative data is converted into quantitative data (Teddlie and Tashakkori, 2009; Hunter *et al*., 2007). The linkage between the qualitative and quantitative approach took

place at the quantizing level, using rates in certain questions or quantifying replies in relation to participant parameters (Miles and Huberman, 1994). This is closely related to cross-case analysis, where participants' responses are analysed in combination with identifying variables, such as gender, year of study, status, work experience, or participation in a society or extra-curricular activity. This is particularly useful in conjunction with explanatory questions (such as 'what' or 'how'), as in the initial part of the interviews. The interview data and its analysis will be discussed in detail in the following section.

6.5 Data and Analysis

The first part of the interview aimed to explore students' personal understandings and perceptions of the topics of interests, namely employability and confidence. Then, student perceptions about the role of confidence within employability, and the role of HEIs in confidence development were investigated in-depth. Also, student views on employability skills and confidence in today's labour market were explored. As mentioned, cross-case and thematic analysis were used to analyse the interview data. To some extent conversion design was applied to quantify the responses. Understanding the impact of variables on perceptions had the potential to broaden the researcher's understanding about the identified issues. The analysis of differences based on characterising variables (e.g., year of study, gender, or status) is only described where significant and will be continued in Section 6.6 as part of the wider discussion of the study's findings.

The outcomes of the analysis are presented in the following sub-sections. The number in brackets represents the number of utterances within the specific category (these numbers will not always sum up to 22, as some participants gave responses across one or more (sub-) categories). For ease of understanding, within the data analysis section, excerpts from interviews do not include expressions such as ummh, ehm, ah, etc.

6.5.1 Definitions and Perceptions of Employability and Employability Skills

Participants were asked what employability meant to them to gather insights into whether students were sufficiently familiar with the term and the concept behind it. Most respondents related employability either to the skills and attributes needed to be employed and mentioned terms such as skills (9); attributes (6); skill set (4); or experience (4):

> P10: "employability is actually the ability for a person to find a job in terms of how they develop their skills and their abilities, so that they can find a job."

For five participants, employability meant to actually be employed and another five participants related the term to some type of economic reward:

> P2: "Employability means to me to be enrolled or having a full-time job. Like, working in general."

> P9: "Being able to find a job that gives you enough money to go through the week, the month."

Some students also related employability to competitiveness or the chances of being hired in general (3) or over others (2), and one student related employability to personal aspects:

> P5: "It's an integral part of everyday life and if we want it's not the first step but it's a step for being successful or to achieving your goals".

Most first year students had correct understandings of employability but seemed to have difficulties in expressing themselves. Interestingly, three out of the five students who mentioned economic rewards (money, salary) as an integral part of employability were in their first year. All seven second year students correctly related employability to the skills needed to find a job and students who previously participated in the Ready Programme (an employability programme, described in Chapter 5) in their first year (three of the second year students) gave very comprehensive definitions of employability and examples of those skills. Only half of the third year students described their understanding of the term employability through skills and experiences, with the others tending to relate it directly to being employed or to receiving funding. Specifically, the two students in their third year who had just completed a placement year, related employment to "the opportunity [to] work for an organisation and (…) receiving some funding" (P20).

For all participants, employability was very important and they related it to aspects such as: monetary rewards (9); personal achievement and life style (12); as well as status (i.e., how society perceives them) (5). Participant variables were not influential in this context. For example:

> P21: "My employability will determine where I end up in life. How much I earn, how big my house is and how many cars I have."

> P5: "Employability is very important to me. I think unfortunately more important than the family actually. (…) I came from kind of strange country and I want to achieve something in my life and for me work will be part of it and then you can choose a place where you will be working."

> P13: "Employability is really important because obviously employability gets you a job, and how people look at you, how people perceive you. How I talk and what my skills and qualifications are is very important to me because obviously that ends in a job."

All students showed a high awareness of the importance of being employable and most students (17) agreed that a university degree would make them more employable. Students who were enrolled in a sandwich programme or who had already completed their placement year were also highly aware of the importance of practical experience:

> P11: "I'm doing a placement year, so I think I'll be pretty much prepared."

> P9: "I'm doing placement twice, so I think that when you have experience, the employers really want that because you show that you already know stuff. Also, I'm doing some volunteering, so I suppose that I have a really strong CV and I'll be able to find a good job."

> P19: "I would like to think that I'll be employable after I finish my degree. Certainly, having been on placement, it's made me more employable."

However, five students were concerned that their degree would not sufficiently prepare them to obtain their desired job:

> P15: "I hope so, but I don't think so because there's so many people competing for the same job and…you need like loads and loads of experience in order to get a good job. So I don't think I will get the job I desire after my graduation."

> P22: "I'm doing a placement because I don't think university teaches all the skills needed to get a job, but even finding a placement is difficult so I am not even sure if studying was the right decision for me."

> P18: "No, not really to be honest, I don't think that what you learn in school and university really will apply to the outside world."

Most students, especially the ones who used a skill-based definition for their perception of employability, had a high level of understanding of what employability skills are and were able to distinguish between course-related/technical skills and transferable/ employability skills:

> P4: "Skills are transferable but I think it's really good to have some practical skills, so for example with computing. It's also important to have general skills like team working, leadership, presentation or communication. That's important

> in any job but in my field computer skills, like programming languages or maybe some knowledge on networking are helpful."

> P3: "I think those skills depend on the job that you're actually applying for. But one of the most important skills is basically people skills, so communication, listening, organisation and then obviously the skills that come with the job. So, for example, I'm doing physiotherapy, so again people skills, manual handling, and manual skills."

Most students were able to list examples for graduate skills, with team working (11), communication (7), people skills (6), leadership (5) and organisational skills (5) being most frequently mentioned. Participants were also aware of the importance of personal competencies, such as responsibility, honesty, positive attitude or emotional intelligence:

> P7: "Well, I think responsibility and honesty are two of the most important things. Like if you have a job and you're not responsible for it, you mess up everyone and it shows you are not reliable. Being honest, or at least what you say is true and reliable, again it comes back to reliability that they can really depend on you on this job."

Four participants mentioned computer skills as important employability skills. Only one of those participants was enrolled in an IT-related course; the remaining three participants mentioned these skills in a negative context, claiming that they were not sufficiently prepared in this area:

> P2: "I think computer skills like Office, Excel, Word, Power Point are highly important nowadays. (…) I'm not good in using the computer because I think nowadays it's pretty much you teach yourself and you don't get taught how to use it because people already expect you to know all about it and I always find myself struggling."

Students were then asked to evaluate which relevant employability skills they possessed and how they had gained them. The researcher aimed to evaluate how students had developed these skills and how students perceived the role of HE in the development of employability skills. Most responses could be classified into one or more of the following three categories: skills development through work experience (15); skills development through extra-curricular activities, such as participation in sports clubs (11); and skills development in the HE setting (3):

> P1: "I worked mainly in the retail and fashion industry in sales-involved jobs. I would say I have very good selling skills, working on my time-keeping skills, I'm very disciplined, I'm very committed to my job. I am actually very

> engaging. I am also very positive, have a hands-on attitude. Most of the skills I mentioned earlier are actually from the previous jobs."
>
> P13: "I think I have had teamwork since I was really young, because I've been playing sport since probably ten years now, playing rugby, cricket, hockey, tennis, so that in terms of teamwork and communication. (…) In terms of organisational skills, I've done lot of extra-curricular activities, so I think you know it's organising your time for your academic things and your time for your extra-curricular things, that's where organisation comes from."
>
> P16: "I have leadership skills, I had a group project last year and each of us had to lead each task and we had to make sure we met deadlines and make sure that if any other team member was under pressure or wasn't able to achieve something, then other team members would help them out. So there was various kind of skills that we were able to learn last year as well through other projects."

It is very surprising, and almost shocking, that only three participants thought that they had developed their skills through their participation in HE. Some students even commented on the lack of opportunities to develop skills during their degree programme:

> P15: "I don't have any group work so it is difficult to develop my social skills."
>
> P2: "In my course we didn't have much group projects, so I didn't have the chance to you know work with other people. And we only had written assignments, so I never had to do a presentation. I am not sure how to use power point and I never had to talk in front of an audience."
>
> P22: "In accounting employability skills are not important. We don't really do presentations or group work because we don't really need those skills in our job."

Throughout the interviews, it was further explored how universities might improve the development of employability skills from a student point of view. This will be discussed in more detail in Section 6.5.4.

6.5.2 Definitions and Perceptions of Confidence

In order to understand students' perspectives on confidence within the context of employability and employability skills development, as well as confidence development itself, it was important to develop an initial understanding of what confidence meant to the participants and how they evaluated their own confidence. Defining confidence is rather difficult, considering that there is no agreed definition in the literature. Nevertheless, students were able to express their perceptions of confidence in an informed manner and most students defined confidence in relation to one of the

following: self-belief (7); abilities and competencies (9); being comfortable (5); or motivation and willingness (3):

> P16: "Confidence … it's probably the ability to be assured within yourself that you could achieve something."
>
> P12: "Personal trust in your own skills."
>
> P7: "I guess your willingness to do something because like if you want to do this, then I think that really you will have the courage to stand in front and actually do it. If you don't want to do it, for example a presentation, then the presentation, the performance you give will not be so good because you're telling the audience you don't want to be there. So I guess willingness related to confidence."
>
> P10: "Confidence is a trait of a person in which they rely about they can achieve what they desire or aspire to become. A confident person is not just a person who speaks their mind or speaks loudly but they're a person who actually know what they can achieve and attempt to achieve it and seize opportunities as they come."

The literature in the field often uses the term self-efficacy. Thus, the researcher wanted to know whether students were familiar with this term and understood its meaning. Most students (17) had never heard the term before and did not know its meaning and, hence, were not able to define the term and did not even make an attempt to do so. Nevertheless, some students attempted to describe their understanding of self-efficacy:

> P11: "Being able to carry out tasks in a quick and correct way by yourself."
>
> P4: "Is that meaning how well you drive yourself or how well you can put yourself into situations? I'm really not sure."

Participants were then asked to rate their self-perceived confidence in general, in an academic and in a professional context on a scale from 1 to 10, with 1 indicating very low confidence and 10 indicating a high level of confidence. Figure 6.3 shows average confidence levels of participants based on their year of study. Based on the sample size, no generalisations should be made, but the data suggests that academic confidence levels increased throughout the degree course, while professional confidence levels seemed to decline throughout the studies.

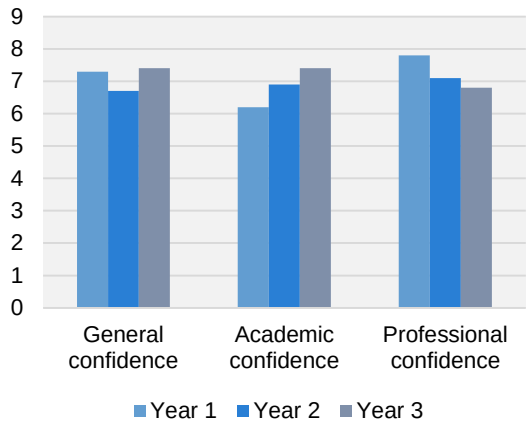

FIGURE 6.3: CONFIDENCE LEVELS (YEAR OF STUDY)

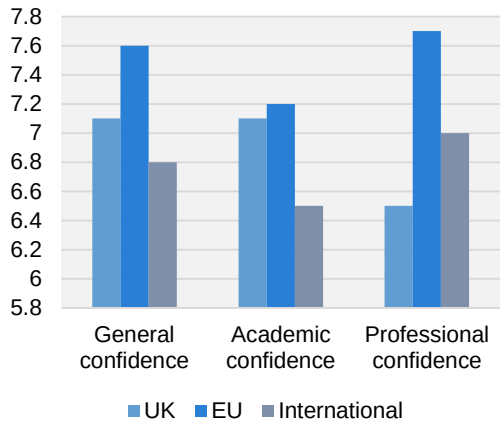

FIGURE 6.4: CONFIDENCE LEVELS (STATUS)

Figure 6.4 shows that the EU students had the highest confidence levels in all three categories. The international students had the lowest general and academic confidence levels, but the UK students had the lowest levels of confidence in the professional context.

The researcher was further interested in how participants assessed their confidence and 'obtained' those self-perceived confidence scores. Within general confidence, participants mostly measured their confidence by imagining situations in daily life or social settings and evaluating: how comfortable they feel in new surroundings (6); how they approach people or talk to people (9); how they make choices (2) and their willingness to take risks (2); or how they approach new challenges (4):

> P10: "My confidence is very low generally. It's fear mostly because I have a fear of failure and that fear of failure holds me back from general confidence. And then I'm afraid to try because I'm afraid to error, so I don't do that trial and error basis kind of thing so I withhold myself of the capacity that I have."

Some participants also evaluated their general confidence based on their personality (4):

> P15: "In general confidence I'm a 7. I'm not really a very outspoken person but if needs to be…so I evaluate it based on my personality, so whether I'm outspoken, whether I stand back and just take things in or whether I will speak out."

In the academic context, participants evaluated their confidence based on their: previous experiences (18); achievements (11); knowledge (4); grades (7) and other assessment outcomes (5); as well as feedback from lecturers (7); group work (3); and their ability to participate in class (ask and answer questions in the classroom) (4).

> P12: "Academically a 7 in confidence. My grades could always be better, like unless you're getting top grades across the mark, then academically you can always improve."
>
> P16: "I'm confident because of my experiences at university. Like, I'm graduating this year and I should get a 2.1 so I think I'm doing quite well academically."

Owing to the high number of international (6) and EU (7) students in this study sample, it is not surprising that many participants rated their confidence (specifically in the academic context) lower because of their language barriers or perception that their level of English was insufficient (7):

> P14: "I'm not really confident academically. I think it's mainly because I feel really foreign and in terms of English I'm not as good as everyone else, yeah, and that's why in academic class, or doing an essay, or with the teacher, I don't speak to the teacher. That I'm not confident academically comes from the fact that I'm not confident in English.

20 of the participants had previous work experience either through part-time jobs (course-related: 5; course-unrelated: 14), prior full-time employment (7), and placements (7) or volunteering opportunities (9); therefore, most participants evaluated their confidence in the professional context based on these experiences (17). Other factors for assessment were: feedback from supervisors or managers (8); feedback after the interviewing process (3); how they managed certain tasks (11); and whether they had the necessary skills and knowledge to fulfil a task (9):

> P1: "I feel confident about my employability because of the previous jobs I have taken and I have done have helped me to build my confidence because they gave me the skills required in this particular field. That is exactly why I feel confidence right now although university hasn't actually helped me to enhance those skills."
>
> P21: "I don't work at the moment but I had jobs in my country, so I know I'm good with talking to customers and I learn quick, like when there is something difficult situation or new thing, I will learn."

Participants were also asked what they were not confident about in regards to their employability or future career. Many students were not confident because of a lack of relevant[10] work experience (9):

[10] Relevant work experience means directly related to the degree subject or desired career.

> P5: "I don't have any work experience in the field what I am studying actually now. It's quite difficult to find this experience in my country. But other candidates here [in England] might have it."

> P21: "I haven't worked yet so I don't really know what to expect. I haven't even been to an interview and feel a quite unprepared because of my lack of experience. Now that I'm thinking about it I am getting really worried that I will not find a job."

However, the highest number of utterances was made with respect to finding a job in general, or finding the right job (19).

> P15: "I don't think anybody can be really confident about 100% getting a job because it's obviously not guaranteed. And also like there's loads of stuff in the news recently like about people not getting jobs and being unemployed and stuff like that. So I don't think anybody can be over-confident about it."

Within this category participants mentioned aspects such as: competition (8); working commitment (i.e., finding the balance between effort and reward) (4); and lack of relevant skills (7):

> P16: "I'm worried that there's always going to be someone better than me, and there always will be, there's no questioning that, but it's just will the job be there at the moment, that's the main problem, and will I have the skills to go for it? Like everything seems to need experience but where does that experience start from is the question."

> P7: "There is always the worry about not being able to find a job. And also working commitments, maybe like you have to invest a lot of working hours but the money you get does not balance. And I guess the big issue, fear, is the competition out there, every year it becomes more fierce. So I guess I worry what if I can't get a job because everyone else is better than me."

Interestingly, some participants were concerned about the area in which to work, or within which area of their degree subject, and participants were even unsure about which employment opportunities were relevant given their degree programme. This was particularly the case for students studying business-unrelated subjects, such as Anthropology, Psychology or Physiotherapy:

> P9: "I'm not confident about where am I going to work because I want to do research or get the post graduate degree on like forensic anthropology. But I'm not confident that I will be able to find a job that I like and do my degree as well, because as I said, anthropology is not an easy place to find a job. Most people become teachers or do research, some people go out there but they don't have many options concerning that and I don't even know where to start to look for a job."

> P2: "I don't really want to become a Psychologist, but what else can I really do with my degree. And I definitely don't want to teach."

Some participants were worried about their lack of specific skills, such as communication or networking skills (5), English skills (5), or interview and application skills (6):

> P17: "I'm worried about being in a new surrounding at work, colleagues, to find people you can trust and ask questions. So, I might not be as confident in the beginning to go up to people and ask them questions when I have some."

> P8: "I don't think I will find a job in England. I want to but I will need a sponsor because of my Visa…and usually they say that the English is not good enough or so."

After gathering some insight on what confidence meant to students and how they perceived their own confidence, the research aimed to explore the relationship between employability and confidence.

6.5.3 The Role of Confidence within Employability

The next section of the interviews aimed to explore student perspectives on the role of confidence within employability and employability skills development. Participants were therefore asked how important they perceived confidence to be for employability and how they evaluated the role of confidence within employability. All participants agreed that confidence was very important for employability and many participants suggested that it was crucial to have confidence throughout the whole employability cycle (i.e., from looking to a job, to applying and going to an interview, to maintaining a position). Hence, seven participants mentioned that without confidence one would be less likely to embrace new job opportunities or even apply for a position as they would not feel that they were deserving of the job. Similarly, many participants indicated that confidence was very important as it was the driver for achievement (4), the motivator to apply for a better job (2) and to embrace new opportunities (4), as well as a stimulus to set higher goals (3).

Most participants described the importance and role of confidence for employability in the context of making a first impression (11) or providing a positive image of oneself (9):

> P10: "Confidence is everything. Some people master that skill of confidence, where they don't really have it on their side but they show it. And for employability, the minute you walk in, it has that effect, confidence is the wow-

> factor that adds to everyone who has it. (…) You perceive the person as more educated, more classy, intelligent, wiser, smarter, they know what they're doing. So for employability, you need to show that confidence when you walk in for that job interview or you're meeting your manager or you get put into a situation. And that confidence is what shows that, yes!, this person deserves this job."

> P20 (5): "If the person feels confident, even if he doesn't know something, he will still create an image that he understands and he will be studying during work and develop that knowledge. But just the first impression is really important, that why it will be useful."

> P16: "It makes the person look bigger than they are. Not in size, but in abilities and knowledge."

Very closely related to image and first impression, confidence also seemed to function as a tool or measure to sell oneself (4), to persuade (5) or to develop trust (3).

> P7: "It [confidence] shows your employers that you want to be there, that you want the job. If you go in without confidence, then it's like in the employer's point of view, why would I want to hire you, you don't want to be here. So it's not persuasive enough."

Further, many participants (9) indicated that confidence could help to overcome limitations in knowledge or skills.

> P22: "If you have confidence, then you will be able to do almost everything. Cause even if you don't know your stuff, then you just fake it till you make it."

> P11: "[Confidence] is very important because I believe when you are trying to get a job, it's not about knowing stuff, it's about looking like you know the stuff, and when you are not confident about what you know, you're not gonna look like it at any time and they not gonna hire you for that job."

Participants also suggested that there may be negative effects through a lack of confidence (5) or over-confidence (8):

> P5: "[Confidence] is really important but you should be realistic, you should be confident and realistic at the same time because if you are too confident, it doesn't' mean that you will achieve something, that you will find a job just because you're confident."

> P3: "However, you can be over-confident and you might pass across as arrogant, which on the other hand can be detrimental to your interview."

Participants were then asked whether and to what extent they thought that confidence was needed to develop and/or to display employability skills. 21 of the participants agreed that confidence was necessary to develop employability skills. These responses

were closely related to the answers regarding the role of confidence within employability. As such, participants said that confidence was needed to enhance existing, and develop new, employability skills, as confidence encourages individuals to try out new things (6), to take risks (2), to be open to new challenges and opportunities (5), to leave the own comfort zone (3), and to accept that improvement or development is necessary (3):

> P11: "Yes, you need confidence because to develop your employability skills you need to go out of your comfort zone and that requires confidence."
>
> P21: "If you reject all the opportunities, if you are not confident, it's less likely that you're open to taking in new things. But to improve yourself, you need to accept things first and be willing to try new things."
>
> P3: "If you lacked confidence, you wouldn't be taking part in extra-curricular activities or projects or wanting to present; therefore, you wouldn't really be improving your knowledge base, your skills, which are important for employability."

One participant disagreed that confidence was necessary to develop employability skills and suggested that "you need the skills first to then develop your confidence" (P9).

Participants were then asked whether and to what extent confidence was needed to display employability skills, for example in the interviewing and assessment process or during certain work-related situations. Again, answers were closely related to the role of confidence within employability but more specifically in the context of image creation (7), first impression (5) and self-presentation (5) or self-belief (3):

> P11: "I think so… maybe…yes. Because you need to prove yourself valuable and that requires confidence, like you need to prove yourself capable of doing what you're required to do and that's not always easy."
>
> P10: "Academic achievement doesn't guarantee a job. People can get jobs based upon what they are and what kind of person you want to hire. Confidence is one of the best masks to wear. People can will perceive that, so you have to walk in like "I'm getting that job today"!"
>
> P8: "You have to be proud of your skills and of who you are. You need confidence to show to everyone what you are worth."

Most students agreed about the importance of confidence within employability and showed a high level of awareness for the need to be confident in order to further develop employability skills and to demonstrate existing employability skills. Therefore, in accordance with the main objective of the study, the next step was to

explore how HEIs could support the development of confidence and employability in their students.

6.5.4 Confidence and Employability Skills Development in HE

Most participants claimed that they had developed their existing employability skills through previous or current (at the time of the research) work experiences, such as part-time jobs and volunteering, or through engagement in extra-curricular activities within and outside the university. This study aimed to further explore how students may enhance their skills throughout their HE experience and to what extent HEIs could support the development of such skills from a student perspective.

Overall, the participants' responses could be divided into two areas: general support activities and support activities specifically aimed at certain degree courses, subjects, or industries (see Figure 6.5).

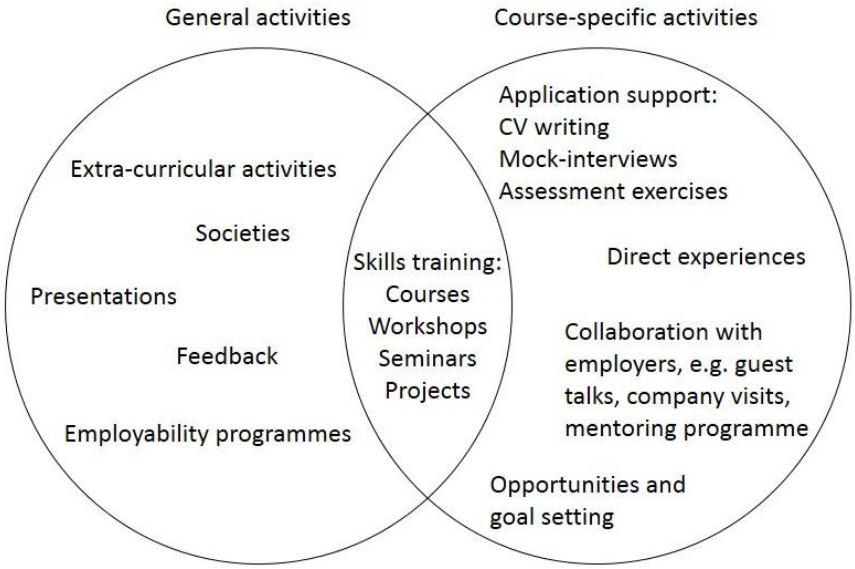

FIGURE 6.5: AREAS OF DEVELOPMENT ACTIVITIES

The area of general support activities included categories such as extra-curricular activities (7), societies (6), presentations and projects in class (8), feedback (8) and employability programmes (4). It is important to note that within these categories the focus lay on the development of confidence in students' general or overall employability skills, in comparison to the second area, where students mentioned skills development specifically in the field in which they were studying.

Participants who already engaged in extra-curricular activities and societies claimed that they greatly benefitted from this participation, and students who were not yet enrolled in such activities agreed that they could be beneficial:

> P3: "By engaging in extra-curricular activities or societies and doing extra work at school makes you gain experience which you can use and transfer across fields."
>
> P8: "I'm participating in so many activities and societies. I'm in the Ready Programme, the Baking society, play volleyball and I'm in an Indonesian group. And this is just my first year. I'm planning to do as many things as possible as I'm sure every activity will teach me new skills and increase my confidence overall because I will know more and can talk to people."

Specifically within the academic context, participants stated that they could, on the one hand, develop their skills through more activities, such as presentations and group projects, but, on the other hand, would only increase their confidence in those skills through continuous feedback from the lecturer, tutor or mentor:

> P8: "Feedback is really important for me because I'm in my first year and I often don't know what's expected from me. I wish we would get more feedback rather than just a final grade at the end of the term. It's difficult to know what you need to know for an exam if you never get feedback."
>
> P14: "I did a group presentation and thought I did really well. But in the end we all got a C. So I don't really know if I was bad or if it was someone else's fault and then the whole group got a bad grade. Our lecturer never told us."

Three of the second year students and four of the first year students participated or were currently participating (at the time of the research) in the Ready Programme. These programme participants also agreed that this extra-curricular programme helped them to develop their employability skills and their confidence, overall and in a professional context:

> P13: "The Ready Programme helps because you're doing confidence, teamwork, communication skills, presentations, things like that. And obviously that helps your employability skills, with the certificate but also your general confidence as well because you meet new people who you never thought you would, and other things like having tasks, just like really weird tasks as well. And you wouldn't imagine yourself doing them but then you're put into it and somehow you have to kind of get your way around it. You learn so much from that."
>
> P4: "I did the Ready Programme last year and now that I have to apply for a placement, I can see its true value. I can draw on examples from the programme to justify my skills and I see during the interviews that I'm really confident about those skills."

The second area combined support activities directly related to a degree course, subject or industry, and included categories such as: application support (14); direct experiences (13); collaboration with employers (17); and opportunities and goal setting (5).

Within application support, the following sub-categories were created, within which the students reported that they would have liked to receive support from their HEI: CV writing (5), mock-interviews (6) and mock-assessment centre exercises (3):

> P18: "I think one thing that I struggle with is with application forms, I never know what to write on them. So it comes back to that whole knowing how to create the CV, designed specifically for specific jobs. Because a retail CV is easy enough but then once if becomes specialised, it gets harder, especially when you don't yet have any subject-related experience to put on it."

> P14: "I think during the interview is when you make a difference and really present yourself. So I think it is important to practice interviews to be confident in your own interview, to be able to talk easily about your skills, specifically in your field. So having mock-interviews would help to know the typical questions in your field and answer them with confidence."

> P6: "I am looking at jobs at the moment and it's really difficult cause sometimes I just don't know what they expect me to do or know. They just say the degree but no further context is given. So anything to start with could help me, even if there is any type of practice like you might experience when you have to go to assessment centres. If there would be a mock-assessment centre set up at uni you can join and practice how given different aspects, different questions you might be asked throughout an interview. I think that would help the first step to feel more confident and even get a job."

The HEI from which the participants were recruited already offers a wide range of skill development opportunities through its Placement and Career Centre (PCC), such as mock interviews, CV workshops, or webinars on topics such as LinkedIn profiles and job search. However, eight of the participants were not at all aware of these opportunities and five participants criticised the existing structure or workshops offered. For instance:

> P6: "There may already have been workshops [talking about his first and second year], but maybe that I just wasn't aware of them, maybe more publicity about events and workshops around campus could be more useful, certainly. I could certainly recommend if there are any workshops for first or second year students, I will certainly recommend them to go to these workshops, so then they're more prepared if they want to go on placement or even the job after graduation."

> P20: "I know that they do, but you have to make an appointment and then the woman I talked to, had no idea about my field and just asked me very generic questions which I already knew from the Internet. And the allocated time was really short."

However, some students (7) who previously participated in such development and support activities also valued them, for instance:

> P19: When I was applying for my placement role, I had to get assistance from my placement and career adviser, in terms of interview preparation, that build up my confidence because I never had been for an interview in a corporate environment before."

In this context, only a few participants (4) recognised that it was important to be self-disciplined and proactive in order to achieve personal and professional development:

> P17: "I think the university is great in providing support and workshops. I don't think there's much more to be done, I think it's all down to myself really. To just go and do it. (…) I have to be proactive, I have to make more of an effort which I'm a bit lazy as well."

> P1: "I've just been lazy I think. There are so many opportunities and things to do but I always think I can do it another time. But now I'm already in my second year and it might be time to think ahead and take up on those opportunities."

The majority of participants (16) complained about the lack of practical experiences in their theory-loaded courses and wished for more opportunities to practice and apply their theoretical knowledge:

> P18: "Literally most of the time it's just sitting in the classroom or in the lecture and having someone talk at you. And then when you go out into the real world, depending on what your field is, you kind of need to adapt to it and learn everything on the job anyway."

> P20: "During my placement I noticed that I knew how everything works in theory, but I was completely overwhelmed initially because I didn't know how to apply my knowledge. I wish we could have practiced that before. I probably would have avoided quite a few stupid questions and mistakes."

A high number of participants (13) claimed that experiencing their likely industry or career field could increase their skills and confidence. While the participants recognised that obtaining experience in the degree-specific field could mainly be achieved through sandwich programmes, placements and internships, they suggested that some experience could be provided through direct experiences within an organisation, for example through open-days and field trips (5), as well as through (short-term and long-term) experiences within the specific field (8), such as mock-practices or mini-placements:

> P3: "It would help me if there would be somehow the opportunity given to practice the professional context. To have the chance to meet and actually speak to people who are employed currently, even if it's previous students and not the employer. To get a greater idea of how it works, how the job you may want to look at what they expect you to do. It sounds stupid, but in my field

> [Psychology] it would be great to have mock-patients that I could tried while my lecturer supervises me and gives me feedback."
>
> P9: "We do have placement in my course, but maybe provide like a try-out placement, like for three or four days. That would be great, because then you have the more actual view of what you have to do and what different possibilities you have in your field."

Students would further benefit from closer cooperation with employers (17), for example through guest talks (6), employer-led workshops or seminars (5), feedback from employers on projects, assignments or group work (4), or mentoring programmes (2):

> P17: "It would help my confidence if professionals would do seminars because they know what you have to go through to get into the filed you want to do. They are the one currently doing it. So professors are more academic based, whereas professionals are working, they know what they are doing, how everything is. So it would be better from that perspective because they've experiences more in terms of professional employment and stuff."
>
> P19: "In the first and second year you don't really think about employment, I didn't really think about getting a job, I was just thinking about getting through university to be honest. But now that I'm in the situation, I have to think about what I have to do, how I have to approach certain situations and that's perfect coming from someone who's professional because they've been through exactly the same thing. And if anyone knows how to help you out, it will be them."
>
> P18: "Maybe they could have a mentoring scheme, have like a board or something where you kind of meet people and employers in your field or different fields and you can ask questions, build connections or employers can advertise dissertation topics and internships."

It has previously been mentioned that some students did not feel sufficiently prepared by their degree programme and were not even aware of the opportunities that their degree gave them within their specific field. As such, some participants (5) suggested that it would increase their confidence in their employability if they could be clearer about the opportunities within their degree field and if the university could support them in setting goals to achieve their career aspirations:

> P6: "I don't really know where I can apply after my graduation. There are so many different areas within the advertising industry, but because I don't have any work experience in the field, I'm not sure in what position I could start as a graduate without experience."
>
> P12: "I pretty much know what I want to do after graduation, but in regards to my long-term goals of being Psychologist working specifically with special needs children, I am not 100% sure how I can achieve that the quickest possible

> way. Does the university have a career advisor? Perhaps someone who can help me lay out the steps I need to take to achieve my goals."

In addition to general and course-specific support activities, there were some utterances which could be placed equally in both areas. These utterances were divided into the following categories: skills trainings through (curricular and extra-curricular) courses (9), workshops (14), seminars (7), tutorials (3) and projects (4).

> P13: "I think competitions or projects like, I don't know, like The Apprentice for example. Apprentice is such a good show, I personally think because it has everything, people are very confident, maybe they're not but it comes across as very professional plus confident and also teamwork skills is very much needed. I think if the university would do something like that, it would be fun first of all, students would get involved and you can include employers to give tasks or provide feedback. Students could compete in groups, not as individuals and you don't get kicked out but you collect points in the different tasks and then you have a winner. There should be some sort of prize as motivation."

> P4: "The university could offer different workshops or seminars on different topics, for example presentation skills, team working, computer skills, networking and so on and every students has to attend a certain amount of these workshops or seminars either throughout a year or throughout the whole degree. That way, students can chose what applies most for them and are not forced to attend something that seems boring to them or unnecessary. Like, I'm quite good with computers, but would like to go to a session on essay writing or on how to improve my leadership skills."

The support activities mentioned above could be offered to all students in general (i.e., for groups of students on different degree courses), as well as for groups of students from the same course and, hence, could be designed in a generic or industry-targeted manner.

Overall, there was a general tendency for final year students to show a high level of hindsight, expressing their regret for not having participated more in the opportunities offered by the university to develop their skills. Therefore, almost all final year students agreed that an employability module should be taught as a mandatory module within the curriculum.

> P3: "I'm applying for graduate jobs right now and I really wish I would be better prepared. I mean, my grades are good, but in all the interviews they ask me questions like "describe a situation where you have showed leadership skills" and I don't know how to answer that. I wasn't aware how important these things are. My tutor should have told me to participate in workshops."

> P19: "To be fair, unless you force students, they will not participate. I surely wouldn't have. So you have to make it mandatory and assess it somehow."

> P20: "There is a placement module in the second year for all students in a sandwich programme. So there could just be another mandatory module for students who don't participate in placement or in parallel while sandwich students have their placement module."

First and second year students, however, said that they will develop their confidence and skills throughout their degree without the participation in an employability programme or additional workshops or seminars. In addition, first and second year students stressed that the transition to university and the demands of the module were already difficult enough and the workload should not be increased through an additional employability module:

> P2: "Ok…like I partied a lot in my first year but because I think it's part of university and classes were already difficult because of English. And now in my second year I am focusing more on my grades. So to be honest I don't think I want to, I have time to do another module. But perhaps later."

> P1: "It should definitely be voluntary since students have different knowledge and some might already have certain skills. If you make it mandatory and the same for everyone it will be boring and nobody will go."

Therefore, seven out of the eight participating final year students said they would have liked to have a mandatory employability module within the regular curriculum while only two of the first year and four of the second year students shared that opinion (Figure 6.6).

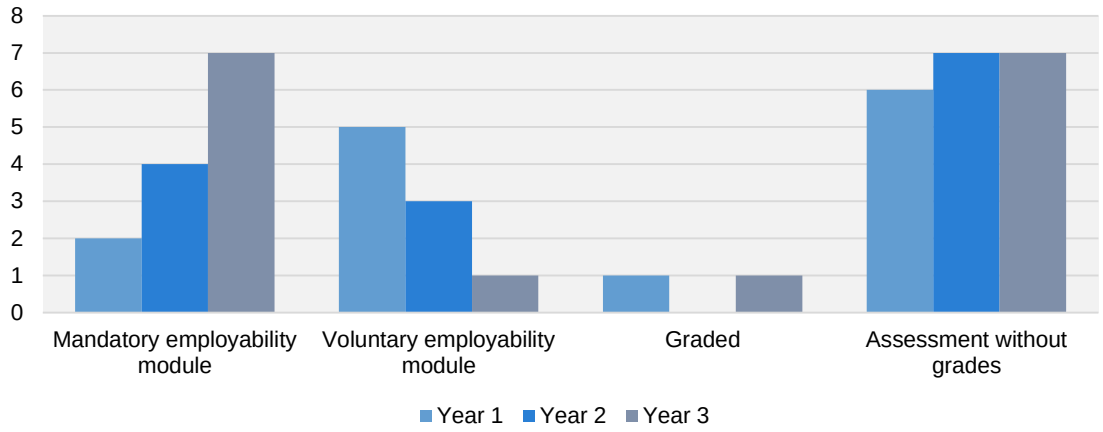

FIGURE 6.6: SHOULD THERE BE A MANDATORY, GRADED EMPLOYABILITY MODULE?

Only two students thought that an employability module (when implemented as a mandatory module within the regular curriculum) should be graded. However, the remaining 20 participants suggested that other modes of assessment should be implemented in order to motivate participation; as such, the module should be assessed,

for instance, through: a final mock-interview (4); final project with presentation (5); pass or fail based on attendance (7); peer-assessment (e.g., on leadership skills or participation in group work) (2); attendance (2); and continuous performance feedback (6):

> P17: "I don't think it should be graded, but maybe a pass/fail or that kind of assessment. Like I would like to get a lot of feedback based on my attendance and participation and then perhaps there could be a final task or presentation. And then overall, if you attended regularly and depending how you did all the tasks and projects you pass or fail."

> P6: "I wouldn't want to get grades on an employability module because I'm quite shy and don't like to speak up but I usually know my stuff. So perhaps rather than the lecturer giving me a grade, the other students could give me feedback on how I'm working in a team or leading a team and how I present."

To conclude the interviews, the researcher asked the participants which skill set they perceived to be more important in today's labour market, soft skills or degree-related, technical skills. On average, participants scored both skill sets as equally important, however, many participants indicated that the importance of each skill set depends on the type of role and industry, as well as the stage of employment. Therefore, participants indicated that for highly skilled jobs, such as doctors or programmers, the degree-related skills were more important than in less skill-dependent jobs, such as a customer services manager or human resources administrator, where the soft skills would be more crucial. Also, participants indicated that to be successful at interview or to gain promotion, soft skills might be more important as the existence of technical skills is assumed:

> P14: "Nowadays everyone is assuming that the technical skills are there anyway. That's why you have a degree. You have to distinguish yourself from the others. So therefore, I think that the soft skills might even be seen as more important because they differentiate yourself from the other and, for example, when you apply for a job you want to stand out from others and this would definitely not happen because of your technical, course-related skills, but because of your soft skills. But then throughout the job, I guess, they are both equal way, but to get into a job would think soft skills are more important."

> P22: "Well, having course-related, technical skills is still very important. The employability skills are the initial skills that you need to make a good impression and be able to sell yourself, and then your job very much depends on your knowledge and your ability to actually perform the work. However, the skills of, for example, organisation, presentation, time-keeping and being flexible and punctual, those are still important throughout your work. Especially if you want to excel."

> P12: "Both skills are pretty equal. Obviously if you're going for a high-skilled job, then the academic skills are more necessary. But it's the second set of skills, the more interpersonal skills I think I've referred to them as, which are going to tip it, if everyone's balanced."

In summary, while the importance of employability skills for successful applications and the achievement of career aspirations seems to be clear to students, there may not be enough initiatives implemented by HEIs to build students' confidence in their own skills. Further, as the research suggests, existing initiatives might not be designed to meet student needs or might not be promoted effectively. Further, there seems to be a tension about the voluntary or mandatory nature of employability activities, as well as the mode of assessment. These and other outcomes of this study will be discussed in the following section and recommendations will be provided on how HEIs may support the development of confident and employable graduates.

6.6 Discussion and Recommendations

Based on the analysis, this research suggests that confidence is needed for many aspects of employability, such as for the initial recognition that skills development is needed, skills development itself, and the demonstration and application of skills in all types of daily, academic and professional situations. Confidence can only be developed when a skill is mastered and a skill can only be mastered when it is learned, developed and practiced. Based on the literature and the data collected, the following section will provide various suggestions to HEIs around these issues. First, HEIs are advised to increase the awareness amongst students about the importance of employability skills and their development, as well as the importance of participating in extra-curricular activities. Second, HEIs should provide continuous feedback to achieve higher learning benefits for students and increase their confidence in relation to the learnt subject/skill. Finally, recommendations are made on how to design activities, which can support the development of skills and confidence in students.

6.6.1 Increasing Awareness amongst Students

Overall, students showed a relatively clear understanding of the concepts of employability and confidence and seemed to be aware of the importance of developing transferable skills for their future career. Nevertheless, to encourage students to participate in personal and professional development activities, it is important to further educate students in this context. Therefore, this research suggests that HEIs increase

their efforts to raise awareness amongst individual students and larger cohorts with respect to the following:

- The importance of employability skills in today's labour market and a deeper understanding of what employability entails;
- The importance of proactivity and responsibility in students in relation to investing early on in their employability development;
- Proactivity and self-responsibility of students to participate in employability development activities;
- The importance of participating in extra-curricular activities, societies and work experiences.

As the analysis suggested, participants tended to have a clear understanding of employability and the underlying skills; however, some students wrongly suggested that they did not need transferable skills in their field and there were clear differences noticeable between individual students based on their demographic and other descriptive characteristics. For many first year students, employability was closely related to economic rewards rather than the skills needed to obtain and maintain a job or to develop a career. Third year students showed lower levels of understanding of employability and displayed the lowest scores in relations to professional confidence. This could be an indicator of the complexity of the issues and show that, while third year students might have an understanding of employability, their confidence levels decrease due to a greater understanding of the complexity of employability and anxieties around approaching applications and interviews. It could also be an indicator of the success of the initiatives already implemented by the HEI from which the participants were recruited. Specifically during the initial stages of the HE experience, confidence levels can change significantly (in a positive or negative direction) and influence future decisions, motivations and behaviours (Besterfield-Sacre *et al*., 1998). Therefore, it is important to develop an awareness and understanding in students from the beginning of their degree about the importance of employability and the underlying skills.

Initiatives, in the form of extra-curricular activities, societies, events, projects, workshops or seminars, etc., will have to be developed and implemented by HEIs at least until employability is fully embedded in the pre-18 national curriculum, if HEIs aim to increase their graduates' skill development and employability. However, as in

the case of the researched university, participants indicated that they were either not aware of such development activities or that they have not attended them for various reasons. Students are more likely to participate in development activities if they understand the benefit or "pay-off" for participation (Yorke and Knight, 2006). Hence, HEIs have to increase their efforts to promote and market these activities and to encourage students to show responsibility and proactivity to participate in such activities. For this purpose, Morgan (2012) suggested a reduction in the boundaries between academic and non-academic activities and to encourage academic and non-academic staff equally to inform, encourage, and motivate students to actively take responsibility for their personal, academic and professional development. The possibilities in this context are unlimited; for example, academic staff could create specialised seminars to teach specific skills or provide information about extra-curricular support in line with the curriculum (e.g., refer to a team-working workshop offered by the careers centre when the students are asked to perform group work for the module); professional services staff could be invited into lectures to present guest sessions on employability, specific roles or activities (Morgan, 2012).

Further, it is suggested that students are encouraged to develop transferable skills from the beginning of their HE experience as this can have a beneficial impact on academic performance and lead to better opportunities and chances when applying for a placement during the degree or a graduate job after graduation (Nicholson *et al*., 2013).

Finally, previous research in the field, and also the research presented in this chapter, shows that students highly benefit from participation in extra-curricular activities, societies and work experiences (for a literature review in this field, see, for example, Terenzini *et al*., 1996). Participation in any non-academic activities can support the development of skills that underpin employability. Yorke and Knight (2006) identify and classify those skills into four categories: management of self; management of others; management of information; and management of task. The skills needed for the management of those categories can be developed through engagement in any activities inside and outside the classroom. Hence, HEIs should offer a wider range of such activities in cooperation with the students union and employers in order to help students to get involved and develop their skills.

6.6.2 The Importance of Practice and Continuous Feedback and Assessment

Students can, though, only develop their skills, and hence, the confidence in those skills, if they receive continuous feedback on their performance, learning and development. This can be seen when comparing confidence levels of student cohorts: academic confidence levels increase throughout the degree course and students mostly based their academic confidence on feedback and grades received from lecturers. Professional confidence however decreases over the years. It may be that this relates to the (critical) feedback students received when applying for a placement in their second year or a graduate job in their third year, as many students suggested that they did not feel sufficiently prepared for a job in general, or the application process, specifically.

In both contexts, academic and professional, students assessed their confidence based on the feedback provided by their lecturers or managers/supervisors. When participants were asked about situations through which they lost or gained confidence, a majority of the students mentioned negative or positive feedback from lecturers. Critical feedback, especially when not given in an individual or timely manner, significantly led to the loss of confidence of students. Positive feedback, on the other side, had an even higher effect on increased confidence when given unexpectedly or in front of others.

This importance of feedback, or social persuasion, for the development of confidence is in accordance with SCT (Zhao *et al*., 2005; Bandura, 1986). Further, it has been shown that feedback is essential for student learning and development (Carless *et al*., 2011). Students stated that transferable skills could be developed through an increase of activities such as group projects or presentations, but claimed that they could only effectively develop the skills if they received continuous feedback on their performance, either from the lecturer or from their peers. As such, confidence in those skills can also only be developed through continuous, positive feedback. The key here is in feedback being continuous, as participants indicated that feedback or grades given at the end of the course did not help them to develop their skills and lowered their confidence in the case of critical feedback or bad grades.

How HEIs assess their students has long been a topic of discussion, and the present research supports the argument that graded assessments through essays and exams might not be the most beneficial way to support students' learning and development. This is particularly the case if the focus shifts from theory-based to skills-based assessments. As such, Yorke and Knight (2006) stress the importance of formative

assessment over summative assessment, particularly within the context of employability skills.

In addition, feedback should always be individual. Some participants indicated that they did not benefit from group work in class because the received feedback was collective and students were not able to assess their individual strengths and weaknesses based on the given feedback. In the long-term, students will benefit from continuous feedback in two ways: first, they will be able to improve their development and learning as they are clear with respect to their weaknesses; and second, they will develop confidence in their skills through continuous enhancement and improved feedback. In the UK, where the first year of a full-time degree is often a 'qualifying' year and does not influence the class of a graduate's degree, formative assessment and feedback practices could be introduced. Through this, students can primarily focus on the development of the skills needed to succeed academically and professionally. As participants suggested, an increase in their general confidence derived from an increase in their self-efficacy in relation to academic and professional practices; therefore, enhancing those skills throughout the first year of studies can be beneficial for a student in all aspects. In this context, self-assessment as suggested by SCT (Bandura, 1986) could be introduced to students through the practice of self-reflection and assessment. This can help students to develop a better self-image and increase their self-confidence as they learn to evaluate their individual strengths and weaknesses.

6.6.3 The Development of Support Activities that Meet Student Needs

The main objective of this study was the development of a set of recommendations for how HEIs can support the development of confidence and employability in their students. In this context, supporting activities can be placed within the regular modules or as extra-curricular activities.

Considering that almost a quarter of the participants were concerned that their degree would not sufficiently prepare them for their desired job or career, and only three participants felt that they had developed their skills through participation in HE, it is clear that HEIs still have room (and the responsibility) to improve the way in which they support students in the learning and development of transferable skills. The lack of opportunities to develop and practice such skills was frequently criticised by participants, especially by those enrolled in business-unrelated subjects, such as physical sciences, arts and humanities, or health and life sciences.

Considering the two additional modes of confidence enhancement through role modelling and vicarious experiences, as well as enactive mastery (Bandura, 1986, 1977a), it is crucial that students are given the opportunity to observe and experience activities which will lead to the development of employability skills. As suggested, this can be achieved through the offering of general support activities or course-related support activities (see Figure 6.5) within or outside the regular curriculum.

Within the curriculum, students of all disciplines should be given the opportunity to develop their transferable skills through activities such as team working and leadership exercises, presentations, and peer-assessments (Crebert *et al*., 2004). Further, interactions with alumni and employers should be incorporated within the classroom setting in order to enable the observation of specific roles and tasks in their field/industry and to offer networking opportunities. As some participants also indicated that they are not aware of the job and career opportunities that their degree offers, and they were not aware of the requirements for specific jobs within their desired field, it would be advisable to incorporate these issues into the curriculum on a regular basis and to encourage students to set short-term and long-term goals and to assess them regularly. Assessing achievements in relation to pre-set goals can increase an individual's confidence (Zhao *et al*., 2005).

Nevertheless, from a student perspective, the most highly valued activities for skill and confidence development are direct experiences. These experiences can be related directly to the field of study or in relation to general skills development. In any case, participants stressed the importance of experience; as such they claimed that skills cannot be purely taught by a lecturer on a theoretical basis, but have to be experienced and practiced. Only experience can increase the mastery of transferable skills and increase the confidence of an individual in those skills. Therefore, more interactive and practical classroom learning should be encouraged and activities offered outside the classroom setting which enable the practice of transferable skills. As suggested, this can be done through extra-curricular activities, societies, specific skill training, application support workshops, collaborations with employers and employability programmes, to mention only a few examples.

While most, if not all, HEIs in England offer development opportunities of some sort, as suggested by this research, how these activities are (re-)designed and promoted is vital. The complexity of transferable skills and cognitive constructs, the diversity within HEIs

in England, and the varying requirements in different industries make it difficult (and probably not desirable, anyway) to develop one ideal system that can be applied nationally or even across HEIs to develop employability skills in students. However, based on the literature and the research some generic guidelines can be given (Yorke and Knight, 2006):

- Employability skills should be taught and developed regardless of the study course
- The development of employability skills is a continuous and timely process and has to be implemented throughout the whole HE experience
- Cooperation and collaboration with employers throughout any development programme is of essence; ideally, any programme should be delivered to some extend by professionals
- Student involvement should be encouraged and rewarded, but not necessarily graded
- Continuous, formative feedback is imperative for the learning process
- Employability programmes which encompass all modules, rather than focusing on one specific module are suggested to be of higher benefit

The research showed that the students who participated in the Ready Programme developed significantly on a personal and professional level. All of these participants showed a high level of understanding about employability and the underlying skills and claimed that they were confident in relation to the skills learnt during the programme. They all indicated that they had greatly benefited from the programme and two students even said they would like to repeat the programme towards the end of their degree, as it is currently offered only to first year students. Hence, the design and activities of the programme seemed to be a good first step for the development of an employability module which meets the needs and demands of students.

6.7 Conclusions and Contributions

Research has shown that the mastery of emotional and cognitive constructs is imperative for employability skills development and performance and, hence, employability itself. Nevertheless, the analysis of the literature indicates that there is a lack of empirical research in the field of employability and employability skills development and that there is a lack of understanding of the role of confidence within employability (Dacre Pool and Qualter, 2013; Wittekind *et al.*, 2010; Pajares and Miller, 1994). The research presented in this chapter has aimed to address these gaps

and to develop a deeper understanding of the concepts of employability and confidence from a student perspective.

The findings suggest that confidence plays a crucial role in skills development and employability. On one side, skills are developed though experience and practice (provided by HEIs through various support activities discussed throughout the chapter). Through mastery of the skill and continuous feedback, confidence in those skills is developed (see Figure 6.7). Increased confidence, on the other side, encourages students to participate in support activities and to develop additional skills and to embrace new challenges and opportunities from such skills development activities. HE can provide students will all these opportunities to develop employability.

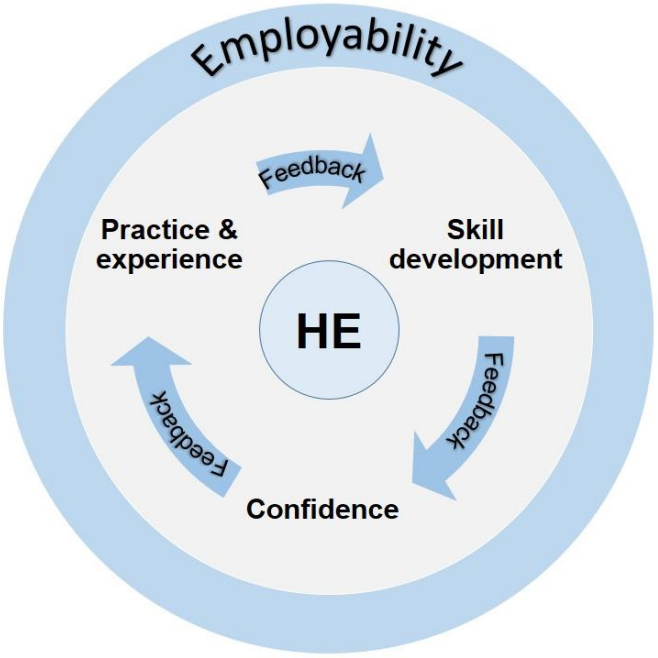

FIGURE 6.7: SKILL AND CONFIDENCE DEVELOPMENT

This simplified model explains the role of confidence within skills development and should encourage HEIs to see the importance of providing sufficient opportunities to develop skills and to provide continuous, formative feedback in order to enhance confidence and skill development. In addition, because confidence and self-efficacy often diminish during educational transition phases (for example from primary to secondary education or from secondary education to professional education or university) owing to new experiences with difficult tasks, unknown environments and higher competition within peer groups, HEIs should support their students to understand, develop and improve their cognitive abilities in general and in relation to employability skills, specifically (Pajares and Schunk, 2001). In this context, it is

important to raise awareness amongst students about the importance of cognitive and transferable skills from the beginning of their HE experience and to encourage active participation in development support activities. Further, HEIs should specifically focus on business-unrelated subjects, as those seem to significantly lack opportunities within the regular curriculum to develop such skills.

While the methodology used in study 3 had some limitations, such as the focus on students from only one university, undertaking similar research at other universities would improve the validity of the findings and allow the topic to be explored in greater depth. Also, conducting further research with students, specifically from non-business subjects, could provide insights into how transferable and cognitive skills could be developed within the regular curriculum. Also, employability initiatives and other development activities offered by different HEIs could be compared and evaluated in order to share practice in relation to the design of such programmes. Therefore, it is suggested that there would be benefit in extending this research to other universities and/or to implement longitudinal studies, in order to achieve a better understanding of the role of HEIs within confidence development and employability.

6.8 Chapter Summary

The importance of developing employable graduates has been previously discussed and it has been suggested that confidence is a crucial factor in relation to student employability. However, there is a lack of research exploring the exact role of confidence within employability and its impact on skill development owing to the complex nature of cognitive constructs. Also, there is a lack of empirical research in this field. Therefore, study 3 aimed to develop a clearer understanding of student perceptions on employability and confidence, to explore the role of confidence within employability and to develop a set of recommendations for how HEIs can support the development of confident and employable graduates.

To this end, semi-structured interviews were conducted with 22 undergraduate students representing all levels and across different disciplines offered by the research site. After verbatim transcription, thematic analysis was used to analyse and code the data. The results indicate that overall students have a good understanding of employability and the underlying skills, however differences amongst individual students based on level of study and degree course were found. Participants indicated that they developed most

transferable skills through work experiences, criticising the lack of opportunities to develop such skill throughout the HE experience. Further, the research suggests that skills can only be learned and developed through direct experience and practice which, in combination with continuous feedback, leads to confidence in those skills. Confidence in relation to employability is crucial in all aspects: for the need recognition of skill development, for the development process itself, for the demonstration of skills, as well as for motivational and goal-setting purposes.

Given the importance of confidence in an individual's employability skills, it is suggested that HEIs should: increase awareness in this respect amongst students of all levels; provide continuous formative feedback to students so that students can develop and build their confidence; and design and promote activities within and outside the regular curriculum, which enable students to observe, learn, develop and practice transferable skills.

CHAPTER 7: Conclusions

7.1 Introduction

This final chapter will conclude the overall research work undertaken and summarise the key aspects of the research. An overview of the thesis will be provided in Section 7.2, giving a brief summary of the main themes of each chapter. Section 7.3 will present the conclusions in relation to the research questions, aims and objectives. Section 7.4 will highlight the methodological, theoretical and practical contributions of the research and Section 7.5 will focus on the positioning of the broader research findings in relation to the theory discussed in previous chapters. Then, Section 7.6 will discuss the limitations of the research and Section 7.7 will suggest future research directions. Finally, the thesis will conclude with some final remarks in Section 7.8.

7.2 Research Summary

Chapter 1 introduced the topic of the thesis and provided initial background in order to rationalise the research motivation. It stressed the importance of understanding student expectations, the meaning of student employability to graduates and HEIs, and the significance of confidence development in the context of employability. The research questions, aims and objectives were described and the research approach was outlined. The scope of the study was explained and the expected contributions of the research identified.

Chapter 2 set the scene for the subsequent chapters by presenting the bigger picture necessary for the understanding of the recent challenges occurring in the English HE sector. The development and purpose of HE in England were briefly introduced. Then, the focus was placed on the funding of HE, as well as the related developments and changes, such as the introduction of £9,000 fees for UG students in parts of the UK, the increasing competition for student numbers and the pressure for universities to withstand scrutinising quality assessments. Further, the marketisation of HE was explained and the students' role as primary stakeholder, customers and partners was clarified. Based on the literature, it was argued that students now have higher expectations in regards to their HE experience and that these expectations should be understood in more detail.

Chapter 3 sought to present the overall research approach used to achieve the research objectives. It was explained how the research was designed under the interpretivist paradigm, applying a mixed research methodology with quantitative and qualitative methods. The research site, namely Brunel University London, from where participants for each study were recruited, was introduced. Further, the three distinct stages of the research were discussed, including a justification for the methods that were used. Finally, limitations and ethical issues in relation to the adopted approach were discussed.

Chapter 4 described the first exploratory study undertaken as part of this research, investigating the expectations and concerns of commencing undergraduate students in relation to their HE experience and identifying influencing personal and situational variables. For this purpose, the literature in the field of quality within HE, student expectations and student satisfaction was analysed. The development of a student-initiated survey as the research tool was explained. The findings suggested that HEIs should consider individual student needs based on their demographic and other characterising factors and should design support and ancillary services according to those needs. Further, employability was identified as an emerging concern for students, which provided the rationale for the next study.

Chapter 5 presented the second study, investigating the topic of employability from a student perspective through the exploration of an employability programme offered by the researched institution. Specifically, after analysing the literature in the field, the study explored the motivations and expectations of participating students before the programme and measured the outcomes and satisfaction with the programme after its completion. Pre- and post-programme questionnaires were used for this purpose. Based on the findings, a set of recommendations was developed on how to develop an employability programme which meets the needs and demands of students. Further, confidence was identified as a construct frequently mentioned by the participants, which led to the motivation to further explore this issue in a subsequent study.

Chapter 6 discussed the third and final study, exploring the concept of confidence within employability from a student perspective. After analysing the concept of confidence and related constructs in general, and within HE and employability specifically, semi-structured interviews were used to further investigate the topic and to explore student perceptions in relation to employability and confidence. The findings

stressed the importance of confidence within student employability and led to a set of recommendations for HEIs on how to support the development and enhancement of employability skills and confidence in students, within and outside the curriculum.

7.3 Conclusions from the Studies

To draw conclusions from all three studies, the research questions, aims and objectives presented in Chapter 1 (Section 1.1.3) are revisited in this sub-section and it is demonstrated how those points have been addressed throughout the research.

Motivated by the changes and challenges affecting the HE sector and its stakeholders, the research's first objective was to investigate whether and to what extent the recent changes in the English HE sector are influencing student expectations, particularly in relation to ancillary services. Further, the study aimed to explore the factors which exert an influence on those expectations and to infer the resulting implication for HEIs.

The findings of the first study suggest that funding, or more specifically the holding of a student loan, does not seem to significantly impact on student expectations and concerns. However, funding is a relevant factor in relation to initial decision-making to attend HE. Other variables, such as age, gender, status and type of accommodation are the most influential factors and impact expectations and concerns in the following ways:

- Young UK students are often more concerned about their HE experience than their older, international and EU peers;
- Students living on-campus have fewer concerns regarding their university experience;
- Older students living off-campus are more concerned about support services, while younger students living on-campus are concerned about campus life.
- Employability is a concern of a majority of students and highly impacted by a range of variables.

Overall, the outcomes indicate that HEIs have to acknowledge individual differences between student cohorts in order to tailor services to individual needs. They also implied that HEIs and their various academic and professional departments can manage student expectations through carefully designed communication strategies and programmes and, hence, directly influence student satisfaction. Further, through recognising areas of concern, HEIs can actively respond to such concerns and increase

the quality and support in those areas. Recommendations were given in this context (Section 4.6. and 4.9).

As an outcome of the first study, employability was identified as a key concern for students. Recognising the lack of empirical research in the field of student employability, the second study aimed to increase the evidence in the field through exploring the topic from a student perspective. The objectives of study 2 were, therefore: (1) to explore motives and motivations of students to participate in a non-credit bearing employability programme; (2) to understand the expectations of students regarding such a programme; (3) to measure to what extent the programme met the participants' expectations and satisfied their individual needs; and (5) to suggest how such an employability programme could be optimised, based on a student perspective.

The findings indicate that while students may have varying motivations to participate in a non-credit bearing employability programme, they all have very clear expectations regarding the programme and know which skills they want to develop. The majority of the participants were highly satisfied with the different aspects of the programme, nevertheless, there was still room for improvement. Based on the suggestions of students, different recommendations for the development and improvement of such programmes in relation to human and practical factors were given (Section 5.7). Understanding the need for employable graduates in today's labour market, and being aware of the needs of students in this context, HEIs can develop different programmes and activities which will meet the demands and expectations of students. It is suggested that rather than only focusing on the development of employability skills, HEIs also have to teach career management skills and provide opportunities for students to develop their application skills, for example through CV writing workshops and mock interviews and assessment. Further, students would like to increase their confidence in applying the learnt skills and in demonstrating them.

Confidence was a recurring factor within the second study. Acknowledging the lack of research in this field, the third study aimed to explore the concept of confidence within employability from a student perspective. Specifically, the objectives of study 3 were: (1) to understand student perceptions of employability and confidence; (2) to explore the role of confidence within student employability and employability skills development; and (3) to develop a set of recommendation on how HEIs can support and enhance the development of employability skills and confidence in students.

The findings imply that generally students have a clear understanding of what employability is and what it entails, however, perceptions vary significantly on an individual basis. The same is true for confidence and self-perceived confidence levels, with students' academic confidence increasing throughout their degree and professional confidence decreasing. All students acknowledged the importance of confidence within employability and it is suggested that confidence is crucial for various aspects of employability, such as skills development and demonstration, as well as career management in general. Based on student views, various recommendations were given on how to support the development of employability skills and confidence in this context (Section 6.6). The first recommendation points towards the responsibility of HEIs to raise awareness amongst individual students and the overall student cohort about the importance of: (1) employability skills in today's labour market; (2) proactivity and self-responsibility of students to participate in employability development activities; and (3) participation in extra-curricular activities, societies and work experiences. The second recommendation highlights the importance of creating opportunities to practice and enhance skills and to provide continuous, formative feedback to students in order to increase their confidence in relation to those skills. Finally, recommendations are given on how to develop support activities within and outside the curriculum.

7.4 Research Contributions

The research makes several contributions of a methodological, theoretical and practical nature. Methodological contributions refer to conclusions drawn in relation to the procedures applied to address the research aims and objectives. Theoretical contributions refer to contributions to the current understanding of the topics of interest. Finally, practical contributions refer to conclusions that can be applied in practice within the field.

Methodologically and theoretically, to the researcher's knowledge, this research is one of few studies in this area so soon after the introduction of the maximum £9,000 tuition fees in England that considers the changing HE sector from the student perspective. As such, the findings stress the importance of comprehensively understanding external environmental factors before planning, developing and marketing curricular and extra-curricular programmes. Specifically, the first study contributes methodologically by

using a survey tool initiated by students rather than organisations themselves. Further, the study uses commencing students before they have directly experiences HE services as research participants and, therefore, widens the existing research within an under-investigated and difficult-to-approach population. Key to the design of all three studies is the focus on student perspectives on the investigated topics and issues.

As suggested, there are theoretical contributions based on the contextual background of the study, as this research may be one of the first studies exploring commencing student expectations and directly related issues such as employability, after recent changes in the English HE sector. Further, each study within this research was partially motivated by the identified gaps within the literature and the lack of empirical evidence in the fields of interest. Hence, all three studies provide theoretical contributions to some extent and deepen the understanding of the topics of interest.

Study 1 contributes theoretically by taking additional factors and variables into account (for example funding method, status and selection). A rather surprising finding which was contrary to the expectations enunciated in the literature, indicated that the method of financing the HE experience does not impact on student expectations; however, it does influence initial decision-making related to participating in HE.

Empirical research within the context of employability is sparse; therefore, studies 2 and 3 deepen the understanding of the issue, specifically from a student perspective, rather than the point-of-view of employers, organisations and HEIs. In addition, while the benefits of placements and participation in extra-curricular activities such as sport clubs has been widely researched, employability programmes have not received much attention. Studies 2 and 3 develop a clearer understanding of the motivations, expectations and factors promoting student satisfaction in relation to such a programme. Further, study 3 specifically has provided some clarification of the role of HE and HEIs for the development of employability skills in students and deepened the understanding of the role of confidence within employability.

The practical contributions of this study relate to policy makers and managers in HE, as well as academic and non-academic staff. The three studies have various important implications for HEIs and provide a set of recommendation within each investigated area (see Sections 4.6; 4.9; 5.7; and 6.6). It is argued that decision-makers within HE can benefit from the research as a result of a better understanding of student

expectations and the factors which influence them. A better understanding can then facilitate the targeted design, management and communication of support services which can significantly increase the satisfaction of students and enhance the quality of such services offered. Various recommendations have been given on how to enhance the student experience through the support of individual student needs taking into account specific issues/variables. In addition, various recommendations have been given in relation to employability skills and confidence development, as well as for the design of support activities. The findings are expected to be helpful for the planning, design and implementation of various types of support activities which can enhance student employability and strengthen students' confidence.

7.5 Linking the Research to Theory and Practice

As discussed, the research contributes to existing knowledge in methodological, theoretical and practical ways. To further understand these contributions it is important to position the outcomes and to discuss the implications of the studies, specifically study 2 and 3, in relation to the theoretical constructs used throughout the research. While study 1 builds the foundation for the overall research, the outcomes of studies 2 and 3 are closely related to Bandura's (1986, 1977b) and Norman and Hyland's (2003) understanding of confidence and their claim that confidence can be developed through specific interventions (role modelling; enactive master; social persuasion; and self-assessment). As such, each of these interventions is reflected in the research outcomes, as indicated in this section.

Role modelling or vicarious experience relates to the observation of behaviour rather than the actual performance of a behaviour, task or skill. In the studies, students expressed this part of development through their desire to hear and learn from presenting guest speakers and to observe tasks, skills and practices, for example through company visits or mentoring programmes. Vicarious experiences might also increase the level of familiarity with different aspects of the business world and employment-related situations and requirements and, hence, reduce the level of concern and anxiety, which directly impacts on the fourth element of development, self-assessment.

Enactive mastery, or mastery experience, relates to doing (i.e., the active fulfilment of a certain behaviour or task). This aspect of developmental activities was that was most frequently mentioned by students in the studies and was reflected through a wide range

of comments and suggestions. As suggested, these activities can be divided into general activities, course-specific activities and skills trainings, which all have the same purpose, namely to actively practice and master a certain behaviour or task. The fact that the majority of participating students would like to participate in skill-enhancing activities suggests that they recognise the benefits for their personal and professional development.

Social or verbal persuasion relates to the feedback given to individuals and is clearly reflected in the research in the desire and need of students to receive feedback on a regular basis from a range of sources such as lecturers, professionals and peers. This should encourage a wider debate about how feedback is currently provided in a majority of institutions, as personal and direct feedback is rather sporadic and infrequent. Further, the opportunities provided through peer-assessment are not embraced sufficiently. Not only receiving, but also providing feedback to peers can increase the level of learning and understanding and also enhance many soft skills, such as communication, critical thinking and leadership.

Finally, self-assessment or psychological state refers to individual's feelings during tasks and also describes the ability to cope with feelings. This aspect of development was not expressed as clearly by students in the studies as the previously-discussed aspects, however, emotions are undoubtedly a crucial factor in confidence development. While students might be unaware of the direct importance of dealing with and managing their emotions, they are conscious about their emotions, particularly where they are negative. For example, students voiced their nervousness, anxiety, insecurity or lack of confidence in relation to their employability, employability skills and/or specific tasks. The research discussed in Chapter 5 also showed that students show the lowest levels of confidence in regards to personal resilience. It seems that the emotional aspects of personal and professional development are rather underdeveloped and ignored throughout the HE experience. However, given the importance of self-assessment for the development of confidence, HEIs have to foster the emotional development and help students to learn coping with feelings. This should be achieved throughout the whole HE experience and not just in relation to employability. However, understanding opportunities and setting goals, as suggested by the participants, can help to reduce anxieties in relation to employability.

Revisiting Figure 6.2, the factors influencing confidence and overall performance (p.143 and reproduced below), it is now clear how the outcomes of the research and the suggested skill- and confidence-enhancing activities relate to the theory in the field.

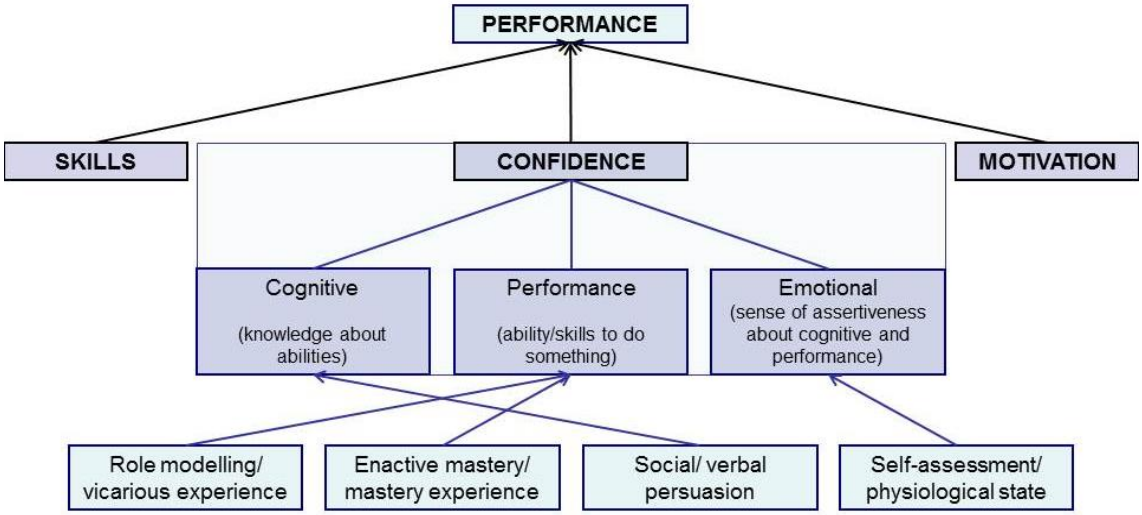

FIGURE 7.1 REPRODUCED: THE FACTORS INFLUENCING CONFIDENCE AND OVERALL PERFORMANCE

Role modelling and enactive mastery can be achieved through the observation of examples and active practicing of the required behaviour. This will improve performance. Social persuasion can be achieved through the increased and improved provision of feedback, which then will develop cognitive behaviour. And, finally, self-assessment can strengthen emotional behaviour. If these three elements within confidence, cognitive, performance and emotional are developed and improved, confidence should increase.

7.6 Research Limitations

An interpretivist paradigm was chosen for this study and an exploratory approach was selected to investigate the issues of student expectations, student employability and confidence within employability. The research applied multiple data collection methods such as focus groups, questionnaires, and semi-structured interviews. As with any research project, this study has several limitations which have to be acknowledged. The limitations can largely be categorised into two areas: methodological limitations and limitations in relation to generalisability. The research limitations identified provide a starting point for future research, discussed in Section 7.7.

All research designs and methods have certain limitations and disadvantages[11]. However, in order to overcome the limitations of purely quantitative or qualitative studies, this research applied a mixed methodology, using quantitative and qualitative data collection tools. Further, to increase the credibility of the research and strengthen the research findings, triangulation was applied to some extent (Mertens, 2010; Guba and Lincoln, 1988). In triangulation, a topic of interest is investigated through the use of different methods; in this research, for example, the issue of employability was explored through the use of questionnaires and interviews. This also increases the validity of the findings. Specifically within interpretivism and the related use of qualitative methods, issues of validity, researcher bias and subjectivity are frequently cited by critics. However, the key to interpretivism is the description of participants' realities through the researcher and subjectivity of a certain degree cannot be denied. Therefore, in order to increase the validity (of interpretations) and reliability of the findings, the researcher used 'thick descriptions' (i.e., provided many direct examples of participants' comments).

A final, key limitation of this research relates to its restricted scope – in terms of drawing the samples from a single HEI for the three studies – and the resulting limitation associated with generalisability. The issue of scope arose mainly owing to time and resource restrictions, as well as access to alternative research sites. Therefore, the results should only be generalised to a limited extent and only to organisations with similar structures, policies, and student and staff demographics. It has to be stressed, though, that generalisability is not a key objective of interpretivist research; rather, the main purpose of this type of research is exploration and explanation.

7.7 Directions for Future Work

As suggested, the limitations of the research can be used to frame directions for future work. As all three studies took place in one research site, one possibility is to expand the research across various HEIs, ideally of different type, for example ancient universities, red brick universities, pre- and post-92 universities and Russell Group universities. This would significantly expand the knowledge in this field, allow for validation of results and encourage generalisation, or identify differences which would themselves be interesting.

[11] For general disadvantages to the applied methods, i.e. focus groups, questionnaires and interviews, see, for example, Creswell (2014), Bryman and Bell (2011) and Silverman (2010).

The first study, exploring student expectations, could be expanded not only through its implementation across several institutions, but also through the exploration of additional characterising variables, such as disability (as attempted in the second iteration of the study), POLAR (participation of local area), prior participation of family members in HE, or initial educational achievement. Through further research of this type, steps could be taken to develop a standardised tool through which commencing student expectations can be measured on a yearly basis.

The second study, investigating employability through the evaluation of an employability programme, could be expanded by evaluating and comparing similar programmes offered by other institutions. Further, the evaluation of student perceptions of the success of the employability programme after some time, for example after application for a placement or graduate job, successful completion of a placement or first year of employment, could give further indications of how to optimise such a programme from a student point-of-view. The study could also be expanded by gathering information from different stakeholders, for example from employers, academics or professional services staff who are actively involved in the support of students' personal and professional development.

The third study, investigating the role of confidence within employability, could be extended to other cognitive constructs, such as emotional intelligence, resilience or effectance motivation, as these constructs might also impact employability. Further, a similar study could be undertaken with a focus on specific student demographics and/or other influencing characteristics. For instance, the findings indicated the confidence levels vary greatly depending on year of study, and skill building activities within the curriculum highly depend on the degree course. Therefore, specific student cohorts could be targeted in-depth. Additionally, the perceived success of specific development support activities, as suggested in the study, could be evaluated.

Finally, in addition to expanding the research in different institutions, all three studies could be expanded by applying a longitudinal research design. Hence, student expectations and concerns could be measured at the beginning of each academic year and evaluated at the end of the academic year. The development of employability and confidence lend themselves to being explored over a long period, as development and learning cannot be assessed effectively at a single point in time. The exploration of

these constructs could not only be expanded to the period of the whole HE experience, but even into initial employment.

7.8 Concluding Remarks

While the integration of employability into the national curriculum is a rising topic of discussion (Priestley and Biesta, 2013; Yorke and Knight, 2006), universities have to offer employability-enhancing opportunities outside the curriculum until policy makers make significant changes to the national curriculum.

On the basis of this initial exploratory study, the research has suggested that not only the changing HE sector in England, but probably the overall changing role, structure and meaning of HE throughout the Western world, has various implications for all stakeholders. Globalisation, the development of technologies, national and international competition and the increasing privatisation of HE is slowly moving away from HE's sole focus in terms of its teaching being disciplinary. This forces HEIs to adapt to the needs and demands of a well-educated, online knowledge society. As such, HEIs may be argued to have a responsibility to equip students with the skills that are needed to succeed in a rapidly changing labour market. While degree-specific skills are undoubtedly still crucial, transferable soft skills and strong cognitive skills are becoming more and more important. Until governments and policy makers introduce the development of such skills into national secondary curricula (where they exist) and/or take steps to make them mandatory subjects for students across all tertiary institutions, HEIs have to take the lead in actively supporting students in their personal and professional development.

It is hoped that through this study awareness can be further raised across relevant members of HEIs and governments regarding the importance of cognitive and transferable skills not only for individual graduates, but also for the benefit of HEIs, employers and wider society.

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APPENDICES

Appendix A: Milestones in the development of the HE sector in England

(Gillard, 2011)

12th century	**Oxbridge** The first established universities in England were the universities of Oxford and Cambridge. Universities were characterised initially by self-governance, the tutoring systems, the establishment of dormitories and boarding schools, as well as the high influence of the church and religious believes. Education was dominated by rich, socially advantaged adolescents, whose parents could afford private tutors and dormitory fees in order to provide their children with "liberal education" and sharpening of morals and values; hence, education was reserved to the privileged and participation rates were comparatively low.
17th century	**Dissenting Academies** Universities began to lose their monopoly over professional training. New vocational academies began to open, preparing students for law and medicine, commerce, engineering, the arts and the armed services. These academies served mainly the lower class population and offered teaching at a higher secondary or university level.
18th century	**Industrial Revolution:** the need for mass education prompted the state into providing a national education system
1963	**Robbins Report** Commissioned by Prime Minister Harold Macmillan, the report recommended an expansion of HE to cater for all who had the necessary ability. The principles and recommendations of the Robbins Report formed the basis for the development of the university sector for subsequent years. The report anticipated that by 1980 most HE would be provided by universities or teacher training institutions.
1983	**Education (Fees and Awards) Act** This Act allowed the secretary of state to require HEIs to charge higher fees to students from outside the United Kingdom, the Channel Islands or the Isle of Man
1985	**Jarratt Report to the Committee of Vice-Chancellors and Principals (CVCP)** A response to the growing need for universities to provide evidence of efficiency, effectiveness and accountability for public funds, impacted on the management of universities and stressed the importance of quality control and measurement in HE.
1986	**First Research Assessment Exercise (RAE)** In 1985, the UK University Grants Committee (UGC) established a national system for the evaluation of research in universities by announcing the RAE, which would take place in 1986. This evaluation facilitated selective research funding across university departments.
1988	**Education Reform Act** Created the Polytechnics and Colleges Funding Council (PCFC) and the Universities Funding Council (UFC). The PCFC funded over 50 polytechnics and colleges previously funded by local education authorities. The UFC funded all 52 universities in the UK. Both Councils were non-departmental public bodies with a high degree of autonomy and an 'arms-length' relationship with the then Department of Education and Science (later Department for Education)
1992	**Further and Higher Education Act** Until 1992, universities and polytechnics had distinct funding regulations and quality assessments. University funding was controlled by the University Grants Committee (UGC) till the early 1980s, serving as a link between government and university, allowing the university a high level of autonomy; the UGC has then been replaced by the University Funding Council (UFC), shifting control more to the government. Polytechnics on the other side have been funded by the Local Education Authorities (LEA) and National Advisory Board for Local Authority Higher Education (NAB). As a result of the Act, the division between universities and polytechnics had been abolished, giving 'polytechnics' the same status as universities had at that time, and the funding bodies have been unified in the Higher Education Funding Council of England (HEFCE). **Aim of the Act** was to respond to the increasing demand of students; resulting in the doubling of the number of institutions that could compete for research funding and award degrees. **Main objectives:** ▪ Creating the Further Education Funding Councils (FEFCs) ▪ Removing colleges from Local Education Authority (LEA) control ▪ Unifying funding under the Higher Education Funding Councils (HEFCs) and introducing competition for funding between institutions (universities and former polytechnics) ▪ Abolishing the Council for National Academic Awards (CNAA) ▪ Introducing quality standards and regulated/standardised assessments
1993	**Dearing Report: The National Curriculum and Its Assessment**

	Was the first major review of the National Curriculum. It argued that the curriculum had become an unwieldy structure which was virtually impossible to implement and that the time spent on paperwork and testing was damaging good teaching and learning.
1997	**National Committee of Inquiry into Higher Education** The first fundamental review of HE since the Robbins Report of 1963; its key recommendations included: ▪ Changes in institutional and student funding ▪ Further expansion ▪ A framework for qualifications ▪ Support for an interdisciplinary arts and humanities research council.
1997	**Quality Assurance Agency for Higher Education (QAA)** Was established to replace the Higher Education Quality Council (HEQC) and to provide an integrated quality assurance service for UK higher education. The QAA safeguards educational standards and promotes the continual enhancement of the quality of teaching, learning opportunities, and related student support services. It is responsible for the management of much of what is called the "academic infrastructure" – the guidelines, resources and procedures that both enable and constrain the activities of the UK's higher education institutions.
1998	**Teaching and Higher Education Act** Introduced measures to change financial support for students, including: ▪ Tuition fees to be paid by all except the poorest students ▪ The replacement of the maintenance grant for living expenses with loans ▪ The availability of a supplementary hardship loan ▪ Bursaries for students entering teacher training or health and social care courses.
2002-03	**Roberts Review** Recommended revising the RAE with a new method for assessing the quality of research. The new RAE process was then announced in February 2004.
2004	**Higher Education Act** In January 2003 the government published its White Paper The Future of Higher Education, which proposed allowing universities to charge variable top-up fees. This was very controversial but the government managed to get the 2004 Higher Education Act through the Commons. Aim of the Act was the widening access to HEIs and helping HEIs to remain competitive in the world economy. **Measures included:** ▪ The introduction of variable tuition fees ▪ Creation of the Office for Fair Access and Arts and Humanities Research Council ▪ The re-introduction of maintenance grants for students from lower-income households ▪ The designation of the Office of the Independent Adjudicator, an independent body to review student complaints not related to matters of academic judgment.
2005	**National Student Survey (NSS)** As part of a revised Quality Assurance Framework (QAF) for HE, the first full NSS was conducted in England, Wales and Northern Ireland amongst all final year undergraduate students. The survey assesses the students' opinion of the quality of their degree programs and their study experience.
2006	**Research Excellence Framework (REF)** The government announced that the RAE will be replaced after 2008 with a new assessment system, the REF.
2009	**A New Framework for Higher Education** The Framework, introduced by Lord Mandelson, generated a 10 – 15 year strategy for universities, designed to support the economic recovery of the UK and to initiate a restructuring of student tuition fees. Key ideas of the framework: ▪ To give students more information about courses and future earnings potential; ▪ To make universities work more closely with industry in designing courses and funding them; and ▪ To expand the selection process to identify suitable pupils from low-performing schools
2009	**Browne Review: Independent Review of Higher Education Funding and Student Finance** Prime minister Gordon Brown promised to increase the number of students who are eligible for a grant. However, after discovering a £200m deficit in finance, ministers had to cut places, resulting in 3,000 extra full-time university places in 2009. Nevertheless, these extra places still did not meet the rising demand.
2010	**Browne Review: Securing a Sustainable Future for Higher Education** The review recommended major changes, including a proposal that more funding should flow through students' tuition fee loans rather than through HEFCE. The aim was to increase quality by increasing competition between HEIs. This involved raising the cap on tuition fees to £9,000 and changing the system of loan repayments. **The report was based on six principles:** ▪ More investment should be available for higher education;

	▪ Student choice should be increased; ▪ Everyone who has the potential should be able to benefit from higher education; ▪ No one should have to pay until they start to work; ▪ When payments are made they should be affordable; and ▪ Part time students should be treated the same as full time students for the costs of learning
2011	**White Paper: Students at the Heart of the System** Took forward the Browne Review proposals and covered four broad areas: reforming funding; delivering a better student experience; enabling universities to increase social mobility; and reducing regulation and removing barriers for new providers.
2012	**Higher Education Achievement Report (HEAR)** Recommended in the Burgess Report in 2007, HEAR is a single electronic source of information which measures and records the students' academic and extra-curricular achievement over the years.

Appendix B.1: Ethical approval (Study 1)

School of Information Systems, Computing and Mathematics
David Gilbert, Head of School, Professor of Computing
Jasna Kuljis, Head of Information Systems and Computing, Professor of Computing
Tony Rawlins, Head of Mathematical Science, Professor of Mathematics

Brunel UNIVERSITY WEST LONDON

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Date: 4th October 2012

STATEMENT OF ETHICS APPROVAL

Proposer: Helga Petra Lecca

Title: Improving the student experience through the implementation of systems thinking principles in Higher Education

The school's research ethics committee has considered the proposal recently submitted by you. Acting under delegated authority, the committee is satisfied that there is no objection on ethical grounds to the proposed study. Approval is given on the understanding that you will adhere to the terms agreed with participants and to inform the committee of any change of plans in relations to the information provided in the application form.

Yours sincerely,

Zidong Wang

Professor Zidong Wang
Chair of the Research Ethics Committee
SISCM

Appendix B.2: Ethical approval (Study 2)

School of Information Systems, Computing and Mathematics
David Gilbert, Head of School, Professor of Computing
Jasna Kuljis, Head of Information Systems and Computing, Professor of Computing
Tony Rawlins, Head of Mathematical Science, Professor of Mathematics

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Date: 25th September 2013

STATEMENT OF ETHICS APPROVAL

Proposer: Helga Petra Lecca

Title: Improving the student experience through the implementation of systems thinking principles in Higher Education

The school's research ethics committee has considered the proposal recently submitted by you. Acting under delegated authority, the committee is satisfied that there is no objection on ethical grounds to the proposed study. Approval is given on the understanding that you will adhere to the terms agreed with participants and to inform the committee of any change of plans in relations to the information provided in the application form.

Yours sincerely,

Zidong Wang

Professor Zidong Wang
Chair of the Research Ethics Committee
SISCM

Appendix B.3: Ethical approval (Study 3)

Brunel University London

College of Engineering, Design and Physical Sciences
Dept. of Computer Science

Professor Martin Shepperd
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Brunel University London
Kingston Lane
Uxbridge
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Date: 12/11/2014

STATEMENT OF ETHICS APPROVAL

Proposer: Helga Petra Lecca

Title: Improving the student experience through the implementation of systems thinking principles in Higher Education

The Department's research ethics committee has considered the proposal recently submitted by you. Acting under delegated authority, the committee is satisfied that there is no objection on ethical grounds to the proposed study. Approval is given on the understanding that you will adhere to the terms agreed with participants and to inform the committee of any change of plans in relations to the information provided in the application form.

Yours sincerely,

Dr Malcolm Clarke
Chair of the Research Ethics Committee

Appendix C.1: Questionnaire development through focus groups

In a focus group setting, prospective students who were already enrolled at a university but had not yet started their university experience were asked to express their concerns and expectations regarding their future university experience. Focus groups were considered to be most appropriate because they provide a comfortable environment for the participants and critical issues can be discovered and reflected upon (Hill *et al*., 2003. Following Greenbaum's (1998) guidelines, two focus groups of five students each were formed and the participants were asked to express any concern or expectation they had regarding the services offered at the university. There was an even distribution of male and female participants; participants were 18 and 19 years of age. Half of the participants planned on finding accommodation on campus while the other half continued living with their families. As discussed, expectations depend on personal factors and different students might have different expectations. However, through the focus group approach, dominant issues are highlighted and can be identified at a group level (Munteanu *et al*., 2010). Therefore, participants were only asked one question: What are your concerns and expectations regarding your university experience?

The answers to this question were recorded in a list without further interaction of the researcher. At this first stage of the process issues that are of interest for the potential students are identified. In a second step, the utterances were then sorted and grouped according to themes identified in the literature (Gruber *et al*., 2010; Munteanu *et al*., 2010, Firdaus, 2006a, b; Clewes, 2003; Hill *et al*., 2003; Aldridge and Rowley, 1998). Those authors list various dimensions or categories, derived from their research and/or the literature, which are perceived as important indicators for student satisfaction. In the questionnaire used for this study, only indicators concerning ancillary services and, hence, not directly related to the teaching and learning experience were taken into account. In a final step, the utterances were then re-formulated into questionnaire items, in order to deduce a reliable and valid tool to measure expectations of ancillary services at HEIs.

Ethical issues were addressed by inviting participants to take part in the focus groups on a voluntary basis and clearly communicating to them the option to withdraw from the research at any time without any consequences. Also, the collected data has been anonymised and no individual data was published.

Appendix C.2: Iteration 1: Commencing students' expectations questionnaire

Brunel University 2012/13 – Student Matters

This survey is conducted as part of a PhD programme in the Department of Information Systems and Computing, Brunel University, and aims to investigate the importance of university services to students. After investigating which services are most important to students, the research then aims to improve this service through the application of various business tools for process optimisation.

If you have any questions and/or are interested in the results of the research, please contact me under Helga.Lecca2@brunel.ac.uk.

You have to be over 18 in order to participate.

☐ You herewith agree to participate in this survey. Further, you understood that the participation is voluntary and anonymous and all collected data will be kept confidential and only used for academic purposes. You have the right to withdraw from this study at any point without penalty.

Section 1: Demographic Information

1.	Gender	☐ Male	☐ Female	
2.	Age	_____		
3.	Study Course	_____		
4.	Program	☐ Full-time	☐ Part-time	☐ Sandwich Program
5.	Status	☐ International Student	☐ Home Student (UK)	☐ EU Student
6.	Funding	☐ Self-funded	☐ Self-funded with loan	☐ Scholarship
7.	Living	☐ Off campus (private)	☐ Off campus (home/family)	☐ On campus
8.	Selection	☐ Unconditional Firm Status	☐ Insurance Choice	☐ Clearing

Section 2: Importance of University Issues

Please indicate if and to what degree you are concerned about the following issues/matters/worries.
Please check only one answer option for each statement.

2.1 Academic and Organisational Issues	Very concerned	Concerned	Somewhat concerned	Not at all concerned	Not applicable
1.Will I receive enough support from my lecturers?	☐	☐	☐	☐	☐
2.What can I do it if have communication issues with lecturers or fellow students?	☐	☐	☐	☐	☐
3.Where can I view my grades?	☐	☐	☐	☐	☐
4.What can I do if don't agree with the feedback on my work or need more feedback?	☐	☐	☐	☐	☐
5.What can I do if I feel that my grades aren't fair?	☐	☐	☐	☐	☐
6.Can I switch courses after the term has started?	☐	☐	☐	☐	☐
7.Can I transfer any grades I've got to another course?	☐	☐	☐	☐	☐
8.What do I have to do if I cannot attend class?	☐	☐	☐	☐	☐
9. Is there a general help desk that can help me resolve my problems or send me to the person in charge?	☐	☐	☐	☐	☐
10. How do I know where to go with my problems?	☐	☐	☐	☐	☐
11. Do I have 24 hour access to public computers?	☐	☐	☐	☐	☐
12. Does the library have all the resources I need?	☐	☐	☐	☐	☐
13. Where can I study outside of class when the library is closed?	☐	☐	☐	☐	☐
14. Where can I do group work?	☐	☐	☐	☐	☐
15. I struggle academically. How can I improve my English/ Maths/academic skills?	☐	☐	☐	☐	☐
16. Can the university support me to find a placement or work experience?	☐	☐	☐	☐	☐

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2.2 Financial Matters	Very concerned	Concerned	Somewhat concerned	Not at all concerned	Not applicable
1.Will I be able to pay back my loan?	☐	☐	☐	☐	☐
2.Will I be informed about payment deadlines (for fees or accommodation) in time?	☐	☐	☐	☐	☐
3.What happens if I miss a payment?	☐	☐	☐	☐	☐
4.Do I have to pay each term in full or can I pay by instalments?	☐	☐	☐	☐	☐
5.Can I change the payment scheme during the year?	☐	☐	☐	☐	☐
6.Can I apply for scholarships after I have started my studies?	☐	☐	☐	☐	☐
7.Can the university provide me with support and help if I struggle financially?	☐	☐	☐	☐	☐

2.3 Living, Leisure & Accommodation	Very concerned	Concerned	Somewhat concerned	Not at all concerned	Not applicable
1.How high will my living expenses be?	☐	☐	☐	☐	☐
2.Where can I find information about transportation and the surrounding area?	☐	☐	☐	☐	☐
3.Where will I find out about the night life on and off campus?	☐	☐	☐	☐	☐
4.Is there food available in the canteen during the whole day?	☐	☐	☐	☐	☐
5.Does the canteen serve special food (e.g. for vegans, vegetarians, halal food)?	☐	☐	☐	☐	☐
6.Is the food in the canteen affordable on a daily basis?	☐	☐	☐	☐	☐
7.Where can I meet other students and make friends outside of class?	☐	☐	☐	☐	☐
8.How can I join clubs and societies?	☐	☐	☐	☐	☐
9.Can I establish a new club/society?	☐	☐	☐	☐	☐
10. Which extra-curricular activities are available?	☐	☐	☐	☐	☐
11. Do these activities have any consequences for my studies? (e.g., time constraints, extra credit)	☐	☐	☐	☐	☐
12. Medical Centre: Am I allocated to one GP?	☐	☐	☐	☐	☐
13. What do I do or where do I go in case of an emergency when the medical centre is not open?	☐	☐	☐	☐	☐

2.4 Personal Matters	Very concerned	Concerned	Somewhat concerned	Not at all concerned	Not applicable
1.Is there someone to talk to about personal problems (e.g., bullying, addiction, stress)?	☐	☐	☐	☐	☐
2.Are there any psychologists or counselling services on campus?	☐	☐	☐	☐	☐
3.Where can I give feedback/make suggestions?	☐	☐	☐	☐	☐
4.Will my feedback/suggestions make a difference?	☐	☐	☐	☐	☐
5.Is it worth going to university?	☐	☐	☐	☐	☐
6.Will I have better chances in the job market as a graduate?	☐	☐	☐	☐	☐
7.Will I be dealing with like-minded people? (attitude, interests, willingness to work)	☐	☐	☐	☐	☐

Section 3: Is there any particular issue that is important to you and not listed? Please explain.

_____

_____

_____

Thank you for your support in completing the questionnaire.

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Appendix C.3: Iteration 1: Frequencies and descriptive statistics

Appendix C.3.1: Administrative and organisational matters (AOM)

Frequencies

		Very concerned	Concerned	Somewhat concerned	Not at all concerned	Not applicable
AOM1	Will I receive enough support from my lecturers?	33	119	64	56	-
AOM2	What can I do it if have communication issues with lecturers or fellow students?	29	84	109	50	-
AOM3	Where can I view my grades?	32	77	97	66	-
AOM4	What can I do if don't agree with the feedback on my work or need more feedback?	21	76	142	33	-
AOM5	What can I do if I feel that my grades aren't fair?	47	84	110	31	-
AOM6	Can I switch courses after the term has started?	21	42	89	120	-
AOM7	Can I transfer any grades I've got to another course?	21	38	96	117	-
AOM8	What do I have to do if I cannot attend class?	23	78	139	32	-
AOM9	Is there a general help desk that can help me resolve my problems or send me to the person in charge?	33	75	109	55	-
AOM10	How do I know where to go with my problems?	24	91	117	40	-
AOM11	Do I have 24 hour access to public computers?	23	89	81	79	-
AOM12	Does the library have all the resources I need?	43	69	104	56	-
AOM13	Where can I study outside of class when the library is closed?	29	77	100	66	-
AOM14	Where can I do group work?	8	96	108	60	-
AOM15	I struggle academically. How can I improve my English/ Maths/academic skills?	20	59	70	106	17
AOM16	Can the university support me to find a placement or work experience?	65	75	79	53	-

Descriptive statistics

		Mean	Std.Dev	Skewness		Kurtosis	
		Statistic	Statistic	Stat.	Std. Error	Stat.	Std. Error
AOM1	Will I receive enough support from my lecturers?	2.53	.952	.223	.148	-.944	.294
AOM2	What can I do it if have communication issues with lecturers or fellow students?	2.66	.899	-.171	.148	-.726	.294
AOM3	Where can I view my grades?	2.72	.961	-.227	.148	-.914	.294
AOM4	What can I do if don't agree with the feedback on my work or need more feedback?	2.69	.784	-.360	.148	-.167	.294
AOM5	What can I do if I feel that my grades aren't fair?	2.46	.908	-.117	.148	-.810	.294
AOM6	Can I switch courses after the term has started?	3.13	.943	-.825	.148	-.314	.294
AOM7	Can I transfer any grades I've got to another course?	3.14	.929	-.858	.148	-.170	.294
AOM8	What do I have to do if I cannot attend class?	2.66	.794	-.342	.148	-.236	.294
AOM9	Is there a general help desk that can help me resolve my problems or send me to the person in charge?	2.68	.931	-.243	.148	-.783	.294
AOM10	How do I know where to go with my problems?	2.64	.839	-.134	.148	-.547	.294
AOM11	Do I have 24 hour access to public computers?	2.79	.958	-.162	.148	-1.05	.294
AOM12	Does the library have all the resources I need?	2.64	.981	-.232	.148	-.938	.294
AOM13	Where can I study outside of class when the library is closed?	2.75	.944	-.242	.148	-.862	.294
AOM14	Where can I do group work?	2.81	.811	.028	.148	-.869	.294
AOM15	I struggle academically. How can I improve my English/ Maths/academic skills?	2.84	1.201	-.818	.148	-.216	.294
AOM16	Can the university support me to find a placement or work experience?	2.44	1.057	.043	.148	-1.21	.294

Appendix C.3.2: Financial matters (FM)

Frequencies

		Very concerned	Concerned	Somewhat concerned	Not at all concerned	Not applicable
FM1	Will I be able to pay back my loan?	36	83	82	39	32
FM2	Will I be informed about payment deadlines (for fees or accommodation) in time?	25	89	114	38	6
FM3	What happens if I miss a payment?	34	84	105	47	2
FM4	Do I have to pay each term in full or can I pay by instalments?	23	79	95	63	12
FM5	Can I change the payment scheme during the year?	29	61	100	67	15
FM6	Can I apply for scholarships after I have started my studies?	51	55	62	80	24
FM7	Can the university provide me with support and help if I struggle financially?	44	67	113	38	10

Descriptive statistics

		Mean	Std.Dev	Skewness		Kurtosis	
		Statistic	Statistic	Stat.	Std. Error	Stat.	Std. Error
FM1	Will I be able to pay back my loan?	2.22	1.198	-.342	.148	-.688	.294
FM2	Will I be informed about payment deadlines (for fees or accommodation) in time?	2.56	.919	-.430	.148	.049	.294
FM3	What happens if I miss a payment?	2.59	.940	-.228	.148	-.591	.294
FM4	Do I have to pay each term in full or can I pay by instalments?	2.64	1.064	-.555	.148	-.148	.294
FM5	Can I change the payment scheme during the year?	2.64	1.127	-.649	.148	-.270	.294
FM6	Can I apply for scholarships after I have started my studies?	2.45	1.322	-.335	.148	-1.10	.294
FM7	Can the university provide me with support and help if I struggle financially?	2.46	1.037	-.451	.148	-.451	.294

Appendix C.3.3: Living, leisure and accommodation (LLA)

Frequencies

		Very concerned	Concerned	Somewhat concerned	Not at all concerned	Not applicable
LLA1	How high will my living expenses be?	37	86	87	29	33
LLA2	Where can I find information about transportation and the surrounding area?	18	74	95	68	17
LLA3	Where will I find out about the night life on and off campus?	21	62	101	74	14
LLA4	Is there food available in the canteen during the whole day?	19	64	101	77	11
LLA5	Does the canteen serve special food (e.g. for vegans, vegetarians, halal food)?	35	34	64	115	24
LLA6	Is the food in the canteen affordable on a daily basis?	17	76	101	56	16
LLA7	Where can I meet other students and make friends outside of class?	37	73	103	52	7
LLA8	How can I join clubs and societies?	30	79	94	60	9
LLA9	Can I establish a new club/society?	17	53	94	91	17
LLA10	Which extra-curricular activities are available?	29	63	112	61	7
LLA11	Do these activities have any consequences for my studies? (e.g., time constraints, extra credit)	30	60	105	66	11
LLA12	Medical Centre: Am I allocated to one GP?	33	78	85	51	25
LLA13	What do I do/where do I go in an emergency when the medical centre is not open?	56	88	73	38	17

Descriptive statistics

		Mean	Std.Dev	Skewness		Kurtosis	
		Statistic	Statistic	Stat	Std. Error	Stat	Std. Error
LLA1	How high will my living expenses be?	2.15	1.161	-.361	.148	-.633	.294
LLA2	Where can I find information about transportation and the surrounding area?	2.66	1.112	-.687	.148	-.024	.294
LLA3	Where will I find out about the night life on and off campus?	2.74	1.098	-.756	.148	.030	.294
LLA4	Is there food available in the canteen during the whole day?	2.79	1.058	-.750	.148	.118	.294
LLA5	Does the canteen serve special food (e.g. for vegans, vegetarians, halal food)?	2.78	1.346	-.782	.148	-.688	.294
LLA6	Is the food in the canteen affordable on a daily basis?	2.62	1.062	-.712	.148	.203	.294
LLA7	Where can I meet other students and make friends outside of class?	2.57	1.028	-.405	.148	-.467	.294
LLA8	How can I join clubs and societies?	2.61	1.050	-.439	.148	-.374	.294
LLA9	Can I establish a new club/society?	2.83	1.148	-.912	.148	.170	.294
LLA10	Which extra-curricular activities are available?	2.70	1.014	-.594	.148	-.162	.294
LLA11	Do these activities have any consequences for my studies? (e.g., time constraints, extra credit)	2.68	1.082	-.639	.148	-.222	.294
LLA12	Medical Centre: Am I allocated to one GP?	2.38	1.188	-.430	.148	-.589	.294
LLA13	What do I do or where do I go in case of an emergency when the medical centre is not open?	2.22	1.114	-.098	.148	-.717	.294

Appendix C.3.4: Personal matters (PM)

Frequencies

		Very concerned	Concerned	Somewhat concerned	Not at all concerned	Not applicable
PM1	Is there someone to talk to about personal problems (e.g., bullying, addiction, stress)?	19	91	79	79	4
PM2	Are there any psychologists or counselling services on campus?	8	33	98	125	8
PM3	Where can I give feedback/make suggestions?	6	46	132	80	8
PM4	Will my feedback/suggestions make a difference?	26	48	114	76	8
PM5	Is it worth going to university?	39	73	78	73	9
PM6	Will I have better chances in the job market as a graduate?	72	80	77	41	2
PM7	Will I be dealing with like-minded people? (attitude, interests, willingness to work)	43	82	100	44	3

Descriptive statistics

		Mean	Std.Dev	Skewness		Kurtosis	
		Statistic	Statistic	Stat	Std. Error	Stat	Std. Error
PM1	Is there someone to talk to about personal problems (e.g., bullying, addiction, stress)?	2.77	.994	-.324	.148	-.579	.294
PM2	Are there any psychologists or counselling services on campus?	3.19	.964	-1.38	.148	1.912	.294
PM3	Where can I give feedback/make suggestions?	2.99	.905	-1.12	.148	1.821	.294
PM4	Will my feedback/suggestions make a difference?	2.82	1.037	-.800	.148	.108	.294
PM5	Is it worth going to university?	2.61	1.124	-.374	.148	-.751	.294
PM6	Will I have better chances in the job market as a graduate?	2.31	1.045	.126	.148	-1.06	.294
PM7	Will I be dealing with like-minded people? (attitude, interests, willingness to work)	2.51	.979	-.197	.148	-.693	.294

Appendix C.4: Iteration 1: Cross-tabulation and chi-square test

Appendix C.4.1: Significant relationships between variables – Overview

2.1 AOM	Gender	Age	Study mode	Status	Funding	Accom	Selection
1. Will I receive enough support from my lecturers?		A	P	S		L	
2. What can I do it if have communication issues with lecturers or fellow students?			P	S	F	L	
3. Where can I view my grades?		A		S		L	X
4. What can I do if don't agree with the feedback on my work or need more feedback?		A	P	S	F	L	X
5. What can I do if I feel that my grades aren't fair?		A				L	
6. Can I switch courses after the term has started?	G					L	X
7. Can I transfer any grades I've got to another course?					F		X
8. What do I have to do if I cannot attend class?			P	S	F	L	
9. Is there a general help desk that can help me resolve my problems or send me to the person in charge?				S	F	L	
10. How do I know where to go with my problems?				S		L	
11. Do I have 24 hour access to public computers?		A				L	X
12. Does the library have all the resources I need?		A				L	
13. Where can I study outside of class when the library is closed?	G	A		S		L	
14. Where can I do group work?		A	P		F	L	X
15. I struggle academically. How can I improve my English/ Maths/academic skills?		A	P	S	F	L	X
16. Can the university support me to find a placement or work experience?				S		L	X
2.2 FM	**Gender**	**Age**	**Study mode**	**Status**	**Funding**	**Accom**	**Selection**
1. Will I be able to pay back my loan?			P			L	X
2. Will I be informed about payment deadlines (for fees or accommodation) in time?			P		F	L	X
3. What happens if I miss a payment?	G		P		F	L	X
4. Do I have to pay each term in full or can I pay by instalments?			P	S	F	L	X
5. Can I change the payment scheme during the year?	G	A		S	F	L	X
6. Can I apply for scholarships after I have started my studies?	G	A		S		L	
7. Can the university provide me with support and help if I struggle financially?			P	S	F	L	
2.3 LLA	**Gender**	**Age**	**Study mode**	**Status**	**Funding**	**Accom**	**Selection**
1. How high will my living expenses be?		A		S		L	X
2. Where can I find information about transportation and the surrounding area?	G	A		S		L	
3. Where will I find out about the night life on and off campus?	G			S	F	L	X
4. Is there food available in the canteen during the whole day?	G			S		L	X
5. Does the canteen serve special food (e.g. for vegans, vegetarians, halal food)?	G	A		S	F		X
6. Is the food in the canteen affordable on a daily basis?			P	S	F	L	
7. Where can I meet other students and make friends outside of class?			P			L	X
8. How can I join clubs and societies?	G			S	F	L	X

9. Can I establish a new club/society?		A		S		L	
10. Which extra-curricular activities are available?				S			
11. Do these activities have any consequences for my studies? (e.g., time constraints, extra credit)		A	P	S	F	L	
12. Medical Centre: Am I allocated to one GP?		A		S		L	
13. What do I do or where do I go in case of an emergency when the medical centre is not open?	G	A		S		L	
2.4 PM	**Gender**	**Age**	**Study mode**	**Status**	**Funding**	**Accom**	**Selection**
1. Is there someone to talk to about personal problems (e.g., bullying, addiction, stress)?	G	A	P	S		L	X
2. Are there any psychologists or counselling services on campus?		A		S		L	X
3. Where can I give feedback/make suggestions?	G			S		L	X
4. Will my feedback/suggestions make a difference?			P	S		L	X
5. Is it worth going to university?			P	S			X
6. Will I have better chances in the job market as a graduate?		A	P	S		L	X
7. Will I be dealing with like-minded people? (attitude, interests, willingness to work)		A	P	S		L	
TOTAL	**13**	**22**	**19**	**33**	**17**	**39**	**25**

Due to the large amount of data, only the results with significant p-values ($p \leq .05$) have been reported in the tables below.

Appendix C.4.2: Cross-tabulation and chi-square test: Gender

	Very Concerned	Concerned	Somewhat Concerned	Not at all Concerned	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Academic and Organisational Issues								
Can I switch courses after the term has started?								
Males	9	19	50	83	161	10.982 (*df*=3)	0.012	0.201
Females	12	23	39	37	111			
Where can I study outside of class when the library is closed?								
Males	23	45	62	31	161	9.285	0.026	0.185
Females	6	32	38	35	111			
Can the university support me to find a placement or work experience?								
Males	31	54	40	36	161	12.721	0.005	0.216
Females	34	21	39	17	111			
Financial Matters								
What happens if I miss a payment?								
Males	19	43	60	37	159	9.953	0.019	0.192
Females	15	41	45	10	111			
Can I change the payment scheme during the year?								
Males	24	31	62	36	153	9.605	0.022	0.193
Females	5	30	38	31	104			
Can I apply for scholarships after I have started my studies?								
Males	36	24	50	40	150	22.933	<0.001	0.304
Females	15	31	12	40	98			
Living, Leisure and Accommodation								
Where can I find information about transportation and the surrounding area?								
Males	13	46	60	29	148	9.641	0.022	0.194
Females	5	28	35	39	107			
Where will I find out about the night life on and off campus?								
Males	13	32	70	35	150	9.957	0.019	0.196
Females	8	30	31	39	108			
Is there food available in the canteen during the whole day?								
Males	9	45	60	36	150	8.885	0.031	0.185
Females	10	19	41	41	111			
Does the canteen serve special food (e.g. for vegans, vegetarians, halal food)?								
Males	22	24	25	71	142	12.519	0.006	0.225
Females	13	10	39	44	106			
How can I join clubs and societies?								
Males	21	41	48	42	152	8.368	0.039	0.178
Females	9	38	46	18	111			
What do I do or where do I go in case of an emergency when the medical centre is not open?								
Males	43	48	36	23	150	10.895	0.012	0.207
Females	13	40	37	15	105			
Personal Matters								
Is there someone to talk to about personal problems (e.g., bullying, addiction, stress)?								
Males	7	60	39	51	157	9.655	0.022	0.190
Females	12	31	40	28	111			
Where can I give feedback/make suggestions?								
Males	6	33	72	42	153	9.546	0.023	0.190
Females	0	13	60	38	111			

Appendix C.4.3: Cross-tabulation and chi-square test: Age

	Very Concerned	Concerned	Somewhat Concerned	Not at all Concerned	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Academic and Organisational Issues								
Will I receive enough support from my lecturers?								
18	11	63	49	23	146	26.594 (*df*=6)	<0.001	0.221
19	15	32	11	25	83			
20+	7	24	4	8	43			
Where can I view my grades?								
18	12	28	72	34	146	34.483	<0.001	0.252
19	13	36	11	23	83			
20+	7	13	14	9	43			
What can I do if don't agree with the feedback on my work or need more feedback?								
18	7	33	83	23	146	13.935[a]	0.030	0.163
19	11	25	40	7	83			
20+	3	18	19	3	43			
What can I do if I feel that my grades aren't fair?								
18	15	51	60	20	146	15.844[a]	0.015	0.166
19	21	18	35	9	83			
20+	11	15	15	2	43			
Do I have 24 hour access to public computers?								
18	4	45	54	43	146	24.929[a]	<0.001	0.218
19	16	25	16	26	83			
20+	3	19	11	10	43			
Does the library have all the resources I need?								
18	11	36	68	31	146	20.452	0.002	0.194
19	21	20	26	16	83			
20+	11	13	10	9	43			
Where can I study outside of class when the library is closed?								
18	7	32	60	47	146	26.485[a]	<0.001	0.218
19	15	27	27	14	83			
20+	7	18	13	5	43			
Where can I do group work?								
18	0	49	60	37	146	19.031[a]	0.004	0.179
19	7	28	35	13	83			
20+	1	19	13	10	43			
I struggle academically. How can I improve my English/ Maths/academic skills?								
18	6	22	33	68	129	23.773[a]	0.001	0.219
19	10	19	30	24	83			
20+	4	18	7	14	43			
Financial Matters								
Can I change the payment scheme during the year?								
18	5	34	58	42	139	23.723[a]	0.001	0.211
19	17	13	28	18	76			
20+	7	14	14	7	42			
Can I apply for scholarships after I have started my studies?								
18	19	34	30	49	132	15.525	0.017	0.177
19	17	14	22	25	78			
20+	15	7	10	6	38			
Living, Leisure and Accommodation								
How high will my living expenses be?								
18	9	43	50	21	123	21.984[a]	0.001	0.214
19	15	27	28	6	76			
20+	13	16	9	2	40			
Where can I find information about transportation and the surrounding area?								
18	4	37	50	46	137	18.960[a]	0.004	0.188
19	10	29	28	11	78			
20+	4	8	17	11	40			
Does the canteen serve special food (e.g. for vegans, vegetarians, halal food)?								
18	12	17	47	57	133	22.545	0.001	0.213
19	10	11	11	40	72			
20+	13	6	6	18	43			
Can I establish a new club/society?								
18	11	20	53	52	136	19.714[a]	0.003	0.205
19	5	14	33	25	77			
20+	1	19	8	14	42			
Do these activities have any consequences for my studies? (e.g., time constraints, extra credit)								

18	6	32	58	43	139	18.652[a]	0.005	0.186
19	17	17	30	15	79			
20+	7	11	17	8	43			
Medical Centre: Am I allocated to one GP?								
18	9	43	50	32	134	19.503	0.003	0.199
19	19	24	21	8	72			
20+	5	11	14	11	41			
What do I do or where do I go in case of an emergency when the medical centre is not open?								
18	18	48	44	27	137	24.430	<0.001	0.219
19	21	29	23	4	77			
20+	17	11	6	7	41			
Personal Matters								
Is there someone to talk to about personal problems (e.g., bullying, addiction, stress)?								
18	8	39	43	52	142	20.047[a]	0.003	0.205
19	3	40	23	17	83			
20+	8	12	13	10	43			
Are there any psychologists or counselling services on campus?								
18	4	8	49	81	142	24.740[a]	<0.001	0.227
19	2	12	36	32	82			
20+	2	13	13	12	40			
Will I have better chances in the job market as a graduate?								
18	29	54	29	32	144	36.027	<0.001	0.258
19	27	23	27	6	83			
20+	16	3	21	3	43			
Will I be dealing with like-minded people? (attitude, interests, willingness to work)								
18	16	52	46	29	143	13.445	0.036	0.158
19	18	18	36	11	83			
20+	9	12	18	4	43			

[a]) The minimum expected cell frequency is violated as one or more cells have expected count less than 5. Therefore, the Likelihood Ratio, rather than Pearson Chi-Square is measured.

Appendix C.4.4: Cross-tabulation and chi-square test: Mode of study

(FT = full-time programme, SP = sandwich programme)

	Very Concerned	Concerned	Somewhat Concerned	Not at all Concerned	Total	Likelihood Ratio Value	Asymp. Sig. (*p*)	Cramer's V
Academic and Organisational Issues								
Will I receive enough support from my lecturers?								
FT	33	99	60	53	245	14.874 (*df*=3)	0.002	0.212
SP	0	20	4	3	27			
What can I do it if have communication issues with lecturers or fellow students?								
FT	29	72	97	47	245	8.786	0.032	0.148
SP	0	12	12	3	27			
What can I do if don't agree with the feedback on my work or need more feedback?								
FT	21	72	122	30	245	9.073	0.028	0.160
SP	0	4	20	3	27			
What do I have to do if I cannot attend class?								
FT	21	62	132	30	245	12.771	0.005	0.227
SP	2	16	7	2	27			
Where can I do group work?								
FT	8	89	91	57	245	7.973	0.047	0.164
SP	0	7	17	3	27			
I struggle academically. How can I improve my English/ Maths/academic skills?								
FT	20	54	56	98	228	11.262	0.010	0.200
SP	0	5	14	8	27			
Financial Matters								
Will I be able to pay back my loan?								
FT	28	75	74	39	216	12.838	0.005	0.207
SP	8	8	8	0	24			
Will I be informed about payment deadlines (for fees or accommodation) in time?								
FT	25	73	105	38	241	18.985	<0.001	0.234
SP	0	16	9	0	25			
What happens if I miss a payment?								
FT	31	74	93	47	245	10.340	0.016	0.150
SP	3	10	12	0	25			
Do I have to pay each term in full or can I pay by instalments?								
FT	23	68	82	62	235	14.723	0.002	0.202
SP	0	11	13	1	25			
Can the university provide me with support and help if I struggle financially?								
FT	40	63	95	37	235	8.372	0.039	0.172
SP	4	4	18	1	27			
Living, Leisure and Accommodation								
Is the food in the canteen affordable on a daily basis?								
FT	11	71	95	53	230	10.735	0.013	0.237
SP	6	5	12	3	26			
Where can I meet other students and make friends outside of class?								
FT	28	63	97	50	238	12.392	0.006	0.226
SP	9	10	6	2	27			
Do these activities have any consequences for my studies? (e.g., time constraints, extra credit)								
FT	29	51	90	64	234	10.071	0.018	0.181
SP	1	9	15	2	27			
Personal Matters								
Is there someone to talk to about personal problems (e.g., bullying, addiction, stress)?								
FT	19	81	66	75	241	9.789	0.020	0.172
SP	0	10	13	4	27			
Will my feedback/suggestions make a difference?								
FT	26	41	108	62	237	14.761	0.002	0.218
SP	0	7	6	14	27			
Is it worth going to university?								
FT	39	62	69	69	239	11.968	0.007	0.182
SP	0	11	9	4	24			
Will I have better chances in the job market as a graduate?								
FT	71	65	69	38	243	14.960	0.002	0.220
SP	1	15	8	3	27			
Will I be dealing with like-minded people? (attitude, interests, willingness to work)								
FT	42	62	97	41	242	25.874	<0.001	0.320
SP	1	20	3	3	27			

Appendix C.4.5: Cross-tabulation and chi-square test: Status

	Very Concerned	Concerned	Somewhat Concerned	Not at all Concerned	Total	Likelihood Ratio Value	Asymp. Sig. (*p*)	Cramer's V
Academic and Organisational Issues								
Will I receive enough support from my lecturers?								
Intern.	11	15	3	2	31	25.083 (df=6)	<0.001	0.225
UK	17	85	56	49	207			
EU	5	19	5	5	34			
What can I do it if have communication issues with lecturers or fellow students?								
Intern.	5	16	7	3	31	14.887	0.021	0.165
UK	18	57	88	44	207			
EU	6	11	14	3	34			
Where can I view my grades?								
Intern.	8	9	8	6	31	17.811	0.007	0.190
UK	22	50	79	56	207			
EU	2	18	10	4	34			
What can I do if don't agree with the feedback on my work or need more feedback?								
Intern.	4	16	8	3	31	29.657	<0.001	0.237
UK	11	45	125	26	207			
EU	6	15	9	4	34			
What do I have to do if I cannot attend class?								
Intern.	6	14	11	0	31	19.618	0.003	0.179
UK	12	55	111	29	207			
EU	5	9	17	3	34			
Is there a general help desk that can help me resolve my problems or send me to the person in charge?								
Intern.	6	16	6	3	31	20.317	0.002	0.194
UK	24	51	83	49	207			
EU	3	8	20	3	34			
How do I know where to go with my problems?								
Intern.	5	16	8	2	31	15.512	0.017	0.167
UK	18	59	95	35	207			
EU	1	16	14	3	34			
Where can I study outside of class when the library is closed?								
Intern.	6	14	8	3	31	25.684	<0.001	0.205
UK	23	46	82	56	207			
EU	0	17	10	7	34			
I struggle academically. How can I improve my English/ Maths/academic skills?								
Intern.	11	7	7	6	31	45.483	<0.001	0.340
UK	6	35	56	93	190			
EU	3	17	7	7	34			
Can the university support me to find a placement or work experience?								
Intern.	9	12	8	2	31	14.519[a]	0.024	0.163
UK	45	49	66	47	207			
EU	11	14	5	4	34			
Financial Matters								
Do I have to pay each term in full or can I pay by instalments?								
Intern.	3	13	4	5	25	16.714	0.010	0.181
UK	18	49	82	52	201			
EU	2	17	9	6	34			
Can I change the payment scheme during the year?								
Intern.	5	8	5	8	26	14.579	0.024	0.166
UK	18	41	88	50	197			
EU	6	12	7	9	34			
Can I apply for scholarships after I have started my studies?								
Intern.	10	7	4	4	25	12.639[a]	0.049	0.160
UK	32	40	51	69	192			
EU	9	8	7	7	31			
Can the university provide me with support and help if I struggle financially?								
Intern.	11	5	7	4	27	26.592	<0.001	0.235
UK	29	46	100	26	201			
EU	4	16	6	8	34			
Living, Leisure and Accommodation								
How high will my living expenses be?								
Intern.	9	7	11	0	27	21.455	0.002	0.197
UK	20	64	66	28	178			
EU	8	15	10	1	34			
Where can I find information about transportation and the surrounding area?								
Intern.	5	11	6	6	28	14.971	0.020	0.179
UK	12	47	78	56	193			
EU	1	16	11	6	34			
Where will I find out about the night life on and off campus?								
Intern.	5	6	7	13	31	29.817	<0.001	0.231
UK	16	40	89	48	193			

EU	0	16	5	13	34			
Is there food available in the canteen during the whole day?								
Intern.	6	6	10	9	31	26.040	<0.001	0.234
UK	13	39	83	61	196			
EU	0	19	8	7	34			
Does the canteen serve special food (e.g. for vegans, vegetarians, halal food)?								
Intern.	7	3	11	8	29	28.439	<0.001	0.258
UK	27	17	48	93	185			
EU	1	14	5	14	34			
Is the food in the canteen affordable on a daily basis?								
Intern.	5	15	8	3	31	19.028	0.004	0.197
UK	8	48	89	46	191			
EU	4	13	10	7	34			
How can I join clubs and societies?								
Intern.	6	7	14	4	31	19.765	0.003	0.179
UK	19	56	68	55	198			
EU	5	16	12	1	34			
Can I establish a new club/society?								
Intern.	2	7	14	6	29	15.745	0.015	0.161
UK	15	36	63	78	192			
EU	0	10	17	7	34			
Which extra-curricular activities are available?								
Intern.	5	6	15	5	31	17.972	0.006	0.189
UK	16	43	89	52	200			
EU	8	14	8	4	34			
Do these activities have any consequences for my studies? (e.g., time constraints, extra credit)								
Intern.	10	8	8	5	31	21.113	0.002	0.215
UK	13	46	81	56	196			
EU	7	6	16	5	34			
Medical Centre: Am I allocated to one GP?								
Intern.	8	11	10	2	31	14.274	0.027	0.171
UK	17	59	65	44	185			
EU	8	8	10	5	31			
What do I do or where do I go in case of an emergency when the medical centre is not open?								
Intern.	13	9	9	0	31	22.116	0.001	0.189
UK	37	64	60	30	191			
EU	6	15	4	8	33			
Personal Matters								
Is there someone to talk to about personal problems (e.g., bullying, addiction, stress)?								
Intern.	7	10	12	2	31	40.843	<0.001	0.265
UK	12	66	50	75	203			
EU	0	15	17	2	34			
Are there any psychologists or counselling services on campus?								
Intern.	2	9	12	8	31	22.900	0.001	0.213
UK	6	16	73	108	203			
EU	0	8	13	9	30			
Where can I give feedback/make suggestions?								
Intern.	0	8	20	3	31	22.444	0.001	0.199
UK	6	27	98	72	203			
EU	0	11	14	5	30			
Will my feedback/suggestions make a difference?								
Intern.	1	15	12	3	31	27.545	<0.001	0.239
UK	20	29	85	69	203			
EU	5	4	17	4	30			
Is it worth going to university?								
Intern.	9	4	8	9	30	13.990	0.030	0.162
UK	24	59	56	60	199			
EU	6	10	14	4	34			
Will I have better chances in the job market as a graduate?								
Intern.	16	5	8	2	31	13.600	0.034	0.162
UK	48	64	57	36	205			
EU	8	11	12	3	34			
Will I be dealing with like-minded people? (attitude, interests, willingness to work)								
Intern.	10	6	13	2	31	18.234	0.006	0.184
UK	26	71	69	38	204			
EU	7	5	18	4	34			

[a]) The minimum expected cell frequency has not been violated; therefore Pearson Chi-Square can be measured.

Appendix C.4.6: Cross-tabulation and chi-square test: Funding

(SF=self-funded, SL=self-funded with student loan, Sponsor=scholarship or sponsor)

	Very Concerned	Concerned	Somewhat Concerned	Not at all Concerned	Total	Likelihood Ration Value	Asymp. Sig. (*p*)	Cramer's V
Academic and Organisational Issues								
What can I do it if have communication issues with lecturers or fellow students?								
SF	2	20	10	10	42	23.048 (df=6)	0.001	0.226
SL	22	61	97	40	220			
Sponsor	5	3	2	0	10			
What can I do if don't agree with the feedback on my work or need more feedback?								
SF	2	24	10	6	42	28.097	<0.001	0.228
SL	18	47	128	27	220			
Sponsor	1	5	4	0	10			
Can I transfer any grades I've got to another course?								
SF	7	2	11	22	42	12.959	0.044	0.158
SL	12	34	82	92	220			
Sponsor	2	2	3	3	10			
What do I have to do if I cannot attend class?								
SF	5	21	16	0	42	35.320	<0.001	0.274
SL	13	55	120	32	220			
Sponsor	5	2	3	0	10			
Is there a general help desk that can help me resolve my problems or send me to the person in charge?								
SF	5	18	9	10	42	15.163	0.019	0.159
SL	25	54	96	45	220			
Sponsor	3	3	4	0	10			
Where can I do group work?								
SF	2	21	10	9	42	16.831	0.010	0.192
SL	4	71	94	51	220			
Sponsor	2	4	4	0	10			
I struggle academically. How can I improve my English/ Maths/academic skills?								
SF	10	8	7	17	42	27.265	<0.001	0.250
SL	8	45	62	88	203			
Sponsor	2	6	1	1	10			
Financial Matters								
Will I be informed about payment deadlines (for fees or accommodation) in time?								
SF	3	6	18	13	40	19.982	0.003	0.198
SL	21	82	91	22	216			
Sponsor	1	1	5	3	10			
What happens if I miss a payment?								
SF	6	15	6	13	40	21.107	0.002	0.189
SL	28	64	97	31	220			
Sponsor	0	5	2	3	10			
Do I have to pay each term in full or can I pay by instalments?								
SF	5	17	6	8	36	12.625	0.049	0.149
SL	18	59	87	52	216			
Sponsor	0	3	2	3	8			
Can I change the payment scheme during the year?								
SF	7	7	7	15	36	16.611	0.011	0.178
SL	22	52	91	47	212			
Sponsor	0	2	2	5	9			
Can the university provide me with support and help if I struggle financially?								
SF	10	5	9	12	36	25.890	<0.001	0.221
SL	31	62	100	23	216			
Sponsor	3	0	4	3	10			
Living, Leisure and Accommodation								
Where will I find out about the night life on and off campus?								
SF	2	8	11	21	42	17.727	0.007	0.197
SL	16	51	89	50	206			
Sponsor	3	3	1	3	10			
Does the canteen serve special food (e.g. for vegans, vegetarians, halal food)?								
SF	2	7	13	17	39	12.889	0.045	0.146
SL	30	24	51	94	199			
Sponsor	3	3	0	4	10			
Is the food in the canteen affordable on a daily basis?								
SF	1	21	10	10	42	18.462	0.005	0.207
SL	13	52	95	44	204			
Sponsor	3	3	2	2	10			
How can I join clubs and societies?								
SF	8	6	22	6	42	18.510	0.005	0.185
SL	20	67	71	53	211			
Sponsor	2	6	1	1	10			
Do these activities have any consequences for my studies? (e.g., time constraints, extra credit)								
SF	11	10	8	13	42	17.116	0.009	0.184
SL	17	48	92	52	209			
Sponsor	2	2	5	1	10			

Appendix C.4.7: Cross-tabulation and chi-square test: Type of accommodation

(Off = off-campus accommodation; On = on campus student accommodation)

	Very Concerned	Concerned	Somewhat Concerned	Not at all Concerned	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Academic and Organisational Issues								
Will I receive enough support from my lecturers?								
Off	5	26	27	39	97	45.317 (df=3)	<0.001	0.408
On	28	93	37	17	175			
What can I do it if have communication issues with lecturers or fellow students?								
Off	4	27	41	25	97	11.159	0.011	0.203
On	25	57	68	25	175			
Where can I view my grades?								
Off	0	26	33	38	97	31.785	<0.001	0.342
On	32	51	64	28	175			
What can I do if don't agree with the feedback on my work or need more feedback?								
Off	8	12	58	19	97	21.705	<0.001	0.282
On	13	64	84	14	175			
What can I do if I feel that my grades aren't fair?								
Off	2	30	46	19	97	30.897	<0.001	0.337
On	45	54	64	12	175			
Can I switch courses after the term has started?								
Off	4	22	32	39	97	8.169	0.043	0.173
On	17	20	57	81	175			
What do I have to do if I cannot attend class?								
Off	1	23	56	17	97	16.675	0.001	0.248
On	22	55	83	15	175			
Is there a general help desk that can help me resolve my problems or send me to the person in charge?								
Off	1	26	36	34	97	32.077	<0.001	0.343
On	32	49	73	21	175			
How do I know where to go with my problems?								
Off	3	30	44	20	97	9.677	0.022	0.189
On	21	61	73	20	175			
Do I have 24 hour access to public computers?								
Off	2	19	39	37	97	25.039	<0.001	0.303
On	21	70	42	42	175			
Does the library have all the resources I need?								
Off	10	19	33	35	97	23.151	<0.001	0.292
On	33	50	71	21	175			
Where can I study outside of class when the library is closed?								
Off	3	24	40	30	97	12.357	0.006	0.213
On	26	53	60	36	175			
Where can I do group work?								
Off	0	22	47	28	97	20.229[a]	<0.001	0.252
On	8	74	61	32	175			
I struggle academically. How can I improve my English/ Maths/academic skills?								
Off	3	12	28	45	88	12.503	0.006	0.221
On	17	47	42	61	167			
Can the university support me to find a placement or work experience?								
Off	15	17	41	24	97	21.223	<0.001	0.279
On	50	58	38	29	175			
Financial Matters								
Will I be able to pay back my loan?								
Off	9	26	32	25	92	15.404	0.002	0.253
On	27	57	50	14	148			
Will I be informed about payment deadlines (for fees or accommodation) in time?								
Off	6	22	46	20	94	12.026	0.007	0.213
On	19	67	68	18	172			
What happens if I miss a payment?								
Off	6	27	44	20	97	7.985	0.046	0.172
On	28	57	61	27	173			
Do I have to pay each term in full or can I pay by instalments?								
Off	4	18	43	30	95	16.536	0.001	0.252
On	19	61	52	33	165			
Can I change the payment scheme during the year?								
Off	4	15	40	35	94	17.857	<0.001	0.264
On	25	46	60	32	163			

Can I apply for scholarships after I have started my studies?								
Off	2	21	27	43	93	34.527	<0.001	0.373
On	49	34	35	37	155			
Can the university provide me with support and help if I struggle financially?								
Off	7	23	45	20	95	13.020	0.005	0.223
On	37	44	68	18	167			
Living, Leisure and Accommodation								
How high will my living expenses be?								
Off	3	26	28	15	72	15.123	0.002	0.252
On	34	60	59	14	167			
Where can I find information about transportation and the surrounding area?								
Off	4	17	32	34	87	12.861	0.005	0.225
On	14	57	63	34	168			
Where will I find out about the night life on and off campus?								
Off	0	16	38	30	84	14.753	0.002	0.239
On	21	46	63	44	174			
Is there food available in the canteen during the whole day?								
Off	0	20	38	28	86	10.826	0.013	0.204
On	19	44	63	49	175			
Is the food in the canteen affordable on a daily basis?								
Off	1	14	44	27	86	21.779	<0.001	0.292
On	16	62	63	29	170			
Where can I meet other students and make friends outside of class?								
Off	2	28	31	29	90	25.794	<0.001	0.312
On	35	45	72	23	175			
How can I join clubs and societies?								
Off	1	32	33	22	88	14.383	0.002	0.234
On	29	47	61	38	175			
Can I establish a new club/society?								
Off	0	18	33	38	89	11.020	0.012	0.208
On	17	35	61	53	166			
Do these activities have any consequences for my studies? (e.g., time constraints, extra credit)								
Off	4	16	27	39	86	29.200	<0.001	0.334
On	26	44	78	27	175			
Medical Centre: Am I allocated to one GP?								
Off	0	19	27	30	76	35.054	<0.001	0.377
On	33	59	58	21	171			
What do I do or where do I go in case of an emergency when the medical centre is not open?								
Off	4	22	28	28	82	49.451	<0.001	0.440
On	52	66	45	10	173			
Personal Matters								
Is there someone to talk to about personal problems (e.g., bullying, addiction, stress)?								
Off	0	31	19	45	95	30.974	<0.001	0.340
On	19	60	60	34	173			
Are there any psychologists or counselling services on campus?								
Off	0	6	32	57	95	17.536[a]	0.001	0.235
On	8	27	66	68	169			
Where can I give feedback/make suggestions?								
Off	0	17	40	38	95	11.712[a]	0.008	0.193
On	6	29	92	42	169			
Will my feedback/suggestions make a difference?								
Off	6	10	47	32	95	9.775	0.021	0.187
On	20	38	67	44	169			
Will I have better chances in the job market as a graduate?								
Off	19	39	25	13	96	9.304	0.026	0.186
On	53	41	52	28	174			

[a]) The minimum expected cell frequency is violated as one or more cells have expected count less than 5. Therefore, the Likelihood Ratio, rather than Pearson Chi-Square is measured.

Appendix C.4.8: Cross-tabulation and chi-square test: Selection

(UFS = unconditional firm status, IC = insurance choice, C = clearing)

	Very Concerned	Concerned	Somewhat Concerned	Not at all Concerned	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Academic and Organisational Issues								
Where can I view my grades?								
UFS	22	31	57	44	154	18.930 (df=6)	0.004	0.187
IC	4	26	15	7	52			
C	6	20	25	15	66			
What can I do if don't agree with the feedback on my work or need more feedback?								
UFS	17	43	77	17	154	16.816[a]	0.010	0.149
IC	4	12	32	4	52			
C	0	21	33	12	66			
Can I switch courses after the term has started?								
UFS	8	23	51	72	154	17.259[a]	0.008	0.175
IC	7	13	20	12	52			
C	6	6	18	36	66			
Can I transfer any grades I've got to another course?								
UFS	8	16	61	69	154	12.624[a]	0.049	0.161
IC	9	9	16	18	52			
C	4	13	19	30	66			
Do I have 24 hour access to public computers?								
UFS	11	48	60	35	154	20.062[a]	0.003	0.190
IC	8	17	7	20	52			
C	4	24	14	24	66			
Where can I do group work?								
UFS	4	49	62	39	154	12.759[a]	0.047	0.148
IC	4	23	15	10	52			
C	0	24	31	11	66			
I struggle academically. How can I improve my English/ Maths/academic skills?								
UFS	16	33	37	59	145	29.601[a]	<0.001	0.231
IC	0	11	24	11	46			
C	4	15	9	36	64			
Can the university support me to find a placement or work experience?								
UFS	29	52	40	33	154	21.449	0.002	0.199
IC	23	6	17	6	52			
C	13	17	22	14	66			
Financial Matters								
Will I be able to pay back my loan?								
UFS	16	45	55	15	131	15.108	0.019	0.177
IC	12	13	12	12	49			
C	8	25	15	12	60			
Will I be informed about payment deadlines (for fees or accommodation) in time?								
UFS	9	47	74	22	152	19.826[a]	0.003	0.189
IC	8	12	26	6	52			
C	8	30	14	10	62			
What happens if I miss a payment?								
UFS	14	62	47	29	152	28.888	<0.001	0.231
IC	8	4	27	13	52			
C	12	18	31	5	66			
Do I have to pay each term in full or can I pay by instalments?								
UFS	7	48	60	31	146	31.439[a]	<0.001	0.249
IC	6	10	8	24	48			
C	10	21	27	8	66			
Can I change the payment scheme during the year?								
UFS	9	38	59	39	145	26.857	<0.001	0.229
IC	14	7	10	15	46			
C	6	16	31	13	66			
Living, Leisure and Accommodation								
How high will my living expenses be?								
UFS	27	51	40	11	129	17.747	0.007	0.193
IC	6	12	22	12	52			
C	4	23	25	6	58			
Where will I find out about the night life on and off campus?								
UFS	10	37	51	50	148	14.938[a]	0.021	0.171
IC	1	14	24	13	52			

C	10	11	26	11	58			
Is there food available in the canteen during the whole day?								
UFS	12	39	44	52	147	23.421[a]	0.001	0.193
IC	0	15	28	9	52			
C	7	10	29	16	62			
Does the canteen serve special food (e.g. for vegans, vegetarians, halal food)?								
UFS	28	19	27	68	142	14.787	0.022	0.173
IC	2	7	19	20	48			
C	5	8	18	27	58			
Where can I meet other students and make friends outside of class?								
UFS	12	50	61	28	151	26.928	<0.001	0.225
IC	9	11	27	5	52			
C	16	12	15	19	62			
How can I join clubs and societies?								
UFS	15	48	57	29	149	18.287	0.006	0.186
IC	9	12	24	7	52			
C	6	19	13	24	62			
Personal Matters								
Is there someone to talk to about personal problems (e.g., bullying, addiction, stress)?								
UFS	13	53	39	45	150	21.493[a]	0.001	0.189
IC	0	14	27	11	52			
C	6	24	13	23	66			
Are there any psychologists or counselling services on campus?								
UFS	4	22	55	65	146	15.101[a]	0.019	0.162
IC	0	6	26	20	52			
C	4	5	17	40	66			
Where can I give feedback/make suggestions?								
UFS	2	29	71	44	146	15.975[a]	0.014	0.176
IC	4	11	27	10	52			
C	0	6	34	26	66			
Will my feedback/suggestions make a difference?								
UFS	7	31	58	50	146	23.760	0.001	0.212
IC	13	6	25	8	52			
C	6	11	31	18	66			
Is it worth going to university?								
UFS	17	38	49	45	149	16.479	0.011	0.177
IC	4	19	13	16	52			
C	18	16	16	12	62			
Will I have better chances in the job market as a graduate?								
UFS	41	42	40	29	152	14.314	0.026	0.163
IC	17	15	20	0	52			
C	14	23	17	12	66			

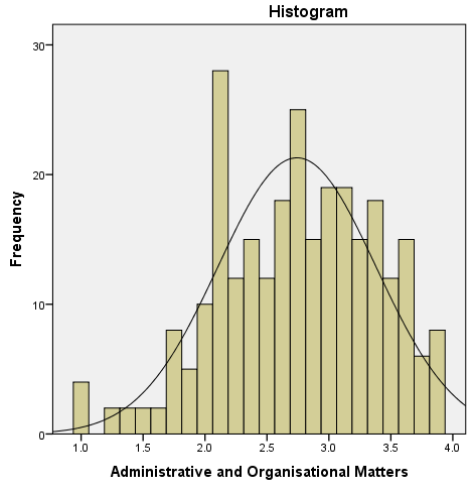
[a]) The minimum expected cell frequency is violated as one or more cells have expected count less than 5. Therefore, the Likelihood Ratio, rather than Pearson Chi-Square is measured.

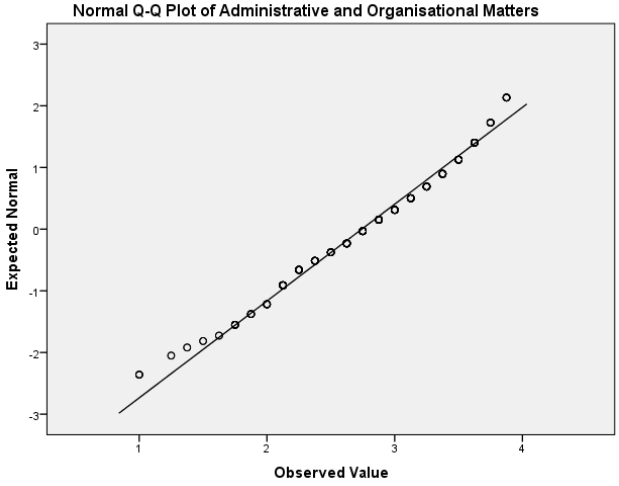
Appendix C.5: Iteration 1: Test of normality

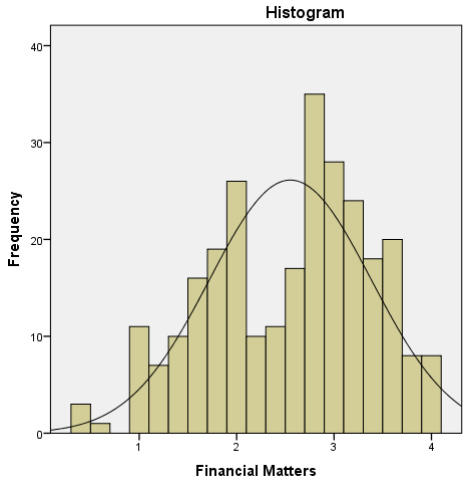
Appendix C.5.1: Skewness and kurtosis

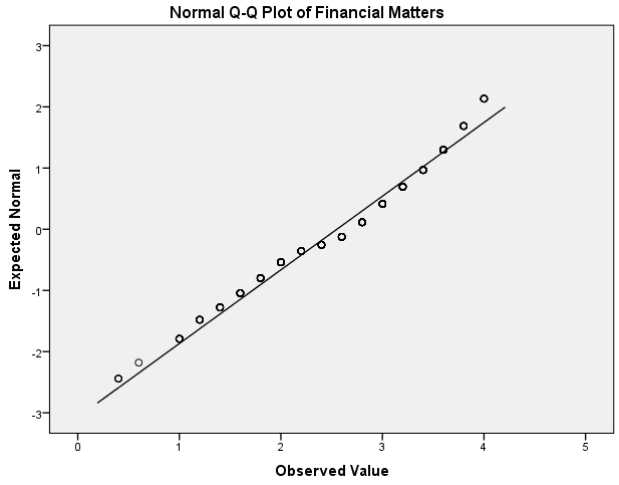
			Statistic	Std. Error
Administrative and Organisational Matters	Mean		2.74	.039
	95% Confidence Interval for Mean	Lower Bound	2.67	
		Upper Bound	2.82	
	5% Trimmed Mean		2.76	
	Median		2.75	
	Variance		.406	
	Std. Deviation		.637	
	Interquartile Range		1	
	Skewness		-.322	.148
	Kurtosis		-.348	.294
Financial Matters	Mean		2.55	.050
	95% Confidence Interval for Mean	Lower Bound	2.45	
		Upper Bound	2.65	
	5% Trimmed Mean		2.57	
	Median		2.80	
	Variance		.690	
	Std. Deviation		.831	
	Interquartile Range		1	
	Skewness		-.351	.148
	Kurtosis		-.665	.294
Living, Leisure and Accommodation	Mean		2.60	.047
	95% Confidence Interval for Mean	Lower Bound	2.50	
		Upper Bound	2.69	
	5% Trimmed Mean		2.63	
	Median		2.67	
	Variance		.612	
	Std. Deviation		.783	
	Interquartile Range		1	
	Skewness		-.796	.148
	Kurtosis		1.351	.294
Personal Matters	Mean		2.98	.053
	95% Confidence Interval for Mean	Lower Bound	2.88	
		Upper Bound	3.09	
	5% Trimmed Mean		3.04	
	Median		3.00	
	Variance		.758	
	Std. Deviation		.871	
	Interquartile Range		2	
	Skewness		-.826	.148
	Kurtosis		.781	.294
Employability	Mean		2.48	.053
	95% Confidence Interval for Mean	Lower Bound	2.37	
		Upper Bound	2.58	
	5% Trimmed Mean		2.48	
	Median		2.67	
	Variance		.761	
	Std. Deviation		.872	
	Interquartile Range		1	
	Skewness		-.086	.148
	Kurtosis		-.630	.294

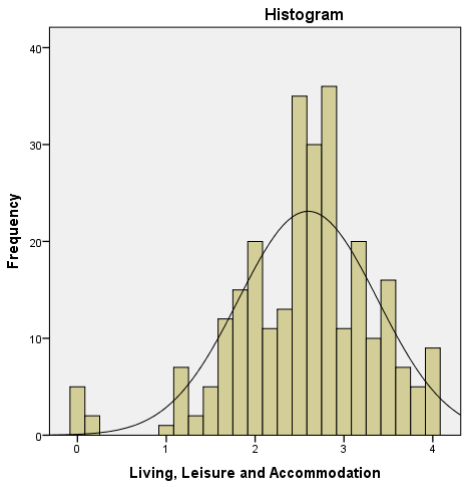
Appendix C.5.2: Normality plots and histograms

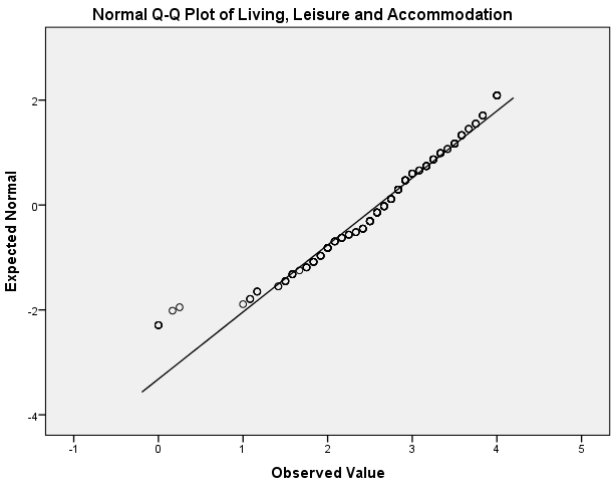


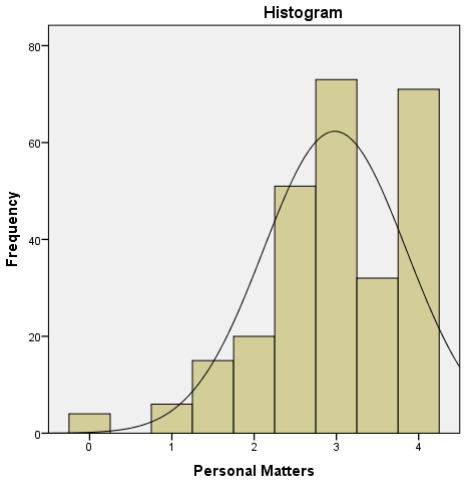


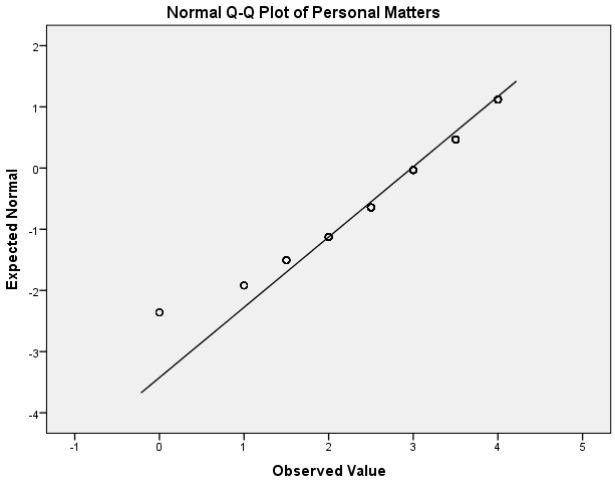


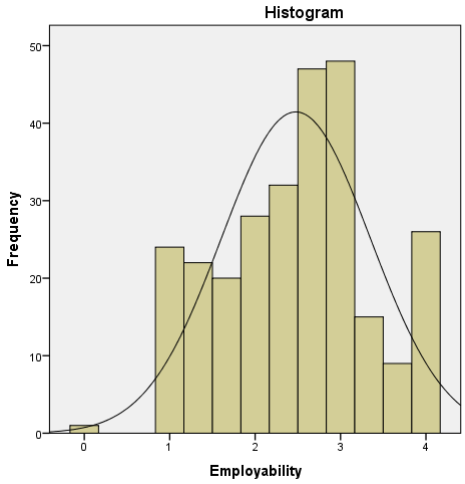


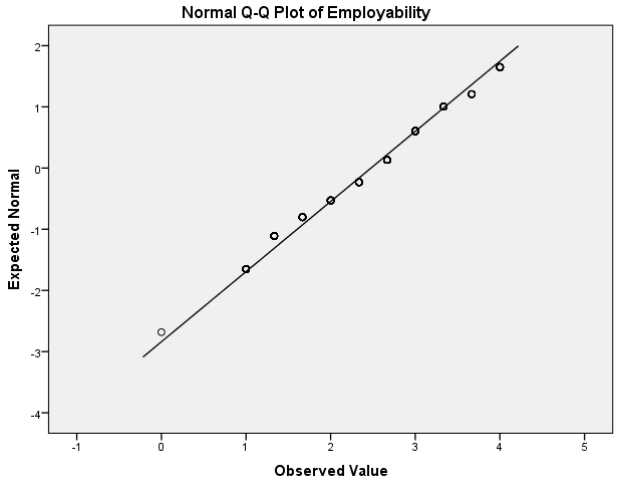





Histogram
Frequency
Personal Matters


Normal Q-Q Plot of Personal Matters
Expected Normal
Observed Value


Histogram
Frequency
Employability


Normal Q-Q Plot of Employability
Expected Normal
Observed Value

Appendix C.6: Iteration 1: T-test and Mann-Whitney U test

Appendix C.6.1: Gender

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
AOM	Male	161	2.74	.640	.050
	Female	111	2.74	.636	.060
FM	Male	161	2.56	.817	.064
	Female	111	2.54	.853	.081
LLA	Male	161	2.50	.853	.067
	Female	111	2.74	.644	.061
PM	Male	161	2.95	.892	.070
	Female	111	3.02	.840	.080
E	Male	161	2.47	.881	.069
	Female	111	2.49	.863	.082

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
AOM	Equal variances assumed	.004	.951	-.047	270	.963	-.004	.079	-.159	.151
	Equal variances not assumed			-.047	237.610	.963	-.004	.079	-.159	.151
FM	Equal variances assumed	.295	.587	.239	270	.811	.025	.103	-.178	.227
	Equal variances not assumed			.237	230.045	.813	.025	.103	-.179	.228
LLA	Equal variances assumed	6.626	.011	-2.532	270	.012	-.242	.096	-.430	-.054
	Equal variances not assumed			-2.664	267.726	.008	-.242	.091	-.421	-.063
PM	Equal variances assumed	.739	.391	-.643	270	.521	-.069	.108	-.281	.143
	Equal variances not assumed			-.650	245.488	.516	-.069	.106	-.279	.140
E	Equal variances assumed	.000	.985	-.200	270	.842	-.022	.108	-.234	.191
	Equal variances not assumed			-.201	239.802	.841	-.022	.107	-.233	.190

Mann-Whitney Test: Ranks				
	Gender	N	Mean Rank	Sum of Ranks
LLA	Male	161	128.39	20671.00
	Female	111	148.26	16457.00
	Total	272		
PM	Male	161	133.37	21472.50
	Female	111	141.04	15655.50
	Total	272		

Test Statistics		
	LLA	PM
Mann-Whitney U	7630.000	8431.500
Wilcoxon W	20671.000	21472.500
Z	-2.050	-.809
Asymp. Sig. (2-tailed)	.040	.418

Appendix C.6.2: Mode of study

Group Statistics					
	Programme	N	Mean	Std. Deviation	Std. Error Mean
AOM	Full-time	245	2.75	.651	.042
	Sandwich	27	2.71	.500	.096
FM	Full-time	245	2.57	.850	.054
	Sandwich	27	2.40	.623	.120
LLA	Full-time	245	2.60	.789	.050
	Sandwich	27	2.58	.732	.141
PM	Full-time	245	2.97	.903	.058
	Sandwich	27	3.09	.481	.093
E	Full-time	245	2.49	.886	.057
	Sandwich	27	2.40	.751	.145

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
AOM	Equal variances assumed	4.276	.040	.251	270	.802	.032	.129	-.222	.287
	Equal variances not assumed			.310	36.497	.759	.032	.105	-.180	.245
FM	Equal variances assumed	5.874	.016	.998	270	.319	.168	.168	-.163	.500
	Equal variances not assumed			1.278	37.600	.209	.168	.132	-.098	.435
LLA	Equal variances assumed	.031	.861	.111	270	.911	.018	.159	-.295	.331
	Equal variances not assumed			.118	33.037	.906	.018	.150	-.287	.322
PM	Equal variances assumed	7.060	.008	-.697	270	.486	-.123	.177	-.471	.225
	Equal variances not assumed			-1.129	49.321	.264	-.123	.109	-.342	.096
E	Equal variances assumed	3.048	.082	.512	270	.609	.091	.177	-.258	.439
	Equal variances not assumed			.584	34.489	.563	.091	.155	-.225	.406

Mann-Whitney Test: Ranks				
	Programme	N	Mean Rank	Sum of Ranks
LLA	Full-time	245	136.60	33466.00
	Sandwich	27	135.63	3662.00
	Total	272		
PM	Full-time	245	136.02	33325.00
	Sandwich	27	140.85	3803.00
	Total	272		

Test Statistics		
	LLA	PM
Mann-Whitney U	3284.000	3190.000
Wilcoxon W	3662.000	33325.000
Z	-.061	-.310
Asymp. Sig. (2-tailed)	.952	.756

Appendix C.6.3: Type of accommodation

Group Statistics					
	Living	N	Mean	Std. Deviation	Std. Error Mean
AOM	off campus	97	3.01	.542	.055
	on campus	175	2.60	.639	.048
FM	off campus	97	2.92	.689	.070
	on campus	175	2.35	.834	.063
LLA	off campus	97	2.66	.994	.101
	on campus	175	2.56	.636	.048
PM	off campus	97	3.27	.823	.084
	on campus	175	2.82	.856	.065
E	off campus	97	2.55	.854	.087
	on campus	175	2.44	.882	.067

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
AOM	Equal variances assumed	2.954	.087	5.376	270	.000	.413	.077	.262	.564
	Equal variances not assumed			5.636	226.824	.000	.413	.073	.268	.557
FM	Equal variances assumed	10.145	.002	5.755	270	.000	.572	.099	.376	.768
	Equal variances not assumed			6.076	231.090	.000	.572	.094	.387	.758
LLA	Equal variances assumed	8.969	.003	1.079	270	.282	.107	.099	-.088	.302
	Equal variances not assumed			.956	140.515	.341	.107	.112	-.114	.328
PM	Equal variances assumed	.019	.891	4.239	270	.000	.453	.107	.243	.664
	Equal variances not assumed			4.288	205.056	.000	.453	.106	.245	.662
E	Equal variances assumed	.532	.466	1.029	270	.304	.114	.110	-.104	.331
	Equal variances not assumed			1.039	203.858	.300	.114	.109	-.102	.329

Mann-Whitney Test: Ranks				
	Living	N	Mean Rank	Sum of Ranks
LLA	off campus	97	151.55	14700.50
	on campus	175	128.16	22427.50
	Total	272		
PM	off campus	97	164.13	15920.50
	on campus	175	121.19	21207.50
	Total	272		

Test Statistics		
	LLA	PM
Mann-Whitney U	7027.500	5807.500
Wilcoxon W	22427.500	21207.500
Z	-2.352	-4.415
Asymp. Sig. (2-tailed)	.019	.000

Appendix C.7: Iteration 1: ANOVA and Kruskal-Wallis test

Appendix C.7.1: Age

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
AOM	18	146	2.84	.543	.045	2.75	2.93	1	4
	19	83	2.64	.735	.081	2.48	2.80	1	4
	20+	43	2.60	.688	.105	2.39	2.81	1	4
	Total	272	2.74	.637	.039	2.67	2.82	1	4
FM	18	146	2.67	.795	.066	2.54	2.80	0	4
	19	83	2.48	.893	.098	2.29	2.68	0	4
	20+	43	2.27	.752	.115	2.03	2.50	1	4
	Total	272	2.55	.831	.050	2.45	2.65	0	4
LLA	18	146	2.69	.769	.064	2.56	2.82	0	4
	19	83	2.45	.819	.090	2.27	2.62	0	4
	20+	43	2.57	.724	.110	2.35	2.79	1	4
	Total	272	2.60	.783	.047	2.50	2.69	0	4
PM	18	146	3.13	.904	.075	2.98	3.28	0	4
	19	83	2.90	.696	.076	2.75	3.06	1	4
	20+	43	2.63	.952	.145	2.33	2.92	1	4
	Total	272	2.98	.871	.053	2.88	3.09	0	4
E	18	146	2.56	.907	.075	2.41	2.71	0	4
	19	83	2.39	.806	.088	2.21	2.56	1	4
	20+	43	2.36	.866	.132	2.10	2.63	1	4
	Total	272	2.48	.872	.053	2.37	2.58	0	4

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
AOM	Between Groups	3.057	2	1.529	3.848	.023
	Within Groups	106.879	269	.397		
	Total	109.937	271			
FM	Between Groups	6.091	2	3.046	4.529	.012
	Within Groups	180.868	269	.672		
	Total	186.959	271			
LLA	Between Groups	3.199	2	1.599	2.644	.073
	Within Groups	162.756	269	.605		
	Total	165.955	271			
PM	Between Groups	9.105	2	4.553	6.239	.002
	Within Groups	196.303	269	.730		
	Total	205.408	271			
E	Between Groups	2.286	2	1.143	1.507	.223
	Within Groups	204.011	269	.758		
	Total	206.297	271			

Kruskal-Wallis Test: Ranks

	Age	N	Mean Rank
LLA	18	146	147.20
	19	83	122.15
	20+	43	127.87
	Total	272	
PM	18	146	153.98
	19	83	122.36
	20+	43	104.43
	Total	272	

Test Statistics[a,b]

	LLA	PM
Chi-Square	5.992	17.859
df	2	2
Asymp. Sig.	.050	.000

a. Kruskal Wallis Test
b. Grouping Variable: Age

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
AOM	18	19	.197	.087	.062	-.01	.40
		20+	.238	.109	.077	-.02	.50
	19	18	-.197	.087	.062	-.40	.01
		20+	.041	.118	.935	-.24	.32
	20+	18	-.238	.109	.077	-.50	.02
		19	-.041	.118	.935	-.32	.24
FM	18	19	.190	.113	.214	-.08	.46
		20+	.409*	.142	.012	.07	.74
	19	18	-.190	.113	.214	-.46	.08
		20+	.219	.154	.331	-.14	.58
	20+	18	-.409*	.142	.012	-.74	-.07
		19	-.219	.154	.331	-.58	.14
LLA	18	19	.244	.107	.060	-.01	.50
		20+	.122	.135	.637	-.20	.44
	19	18	-.244	.107	.060	-.50	.01
		20+	-.122	.146	.682	-.47	.22
	20+	18	-.122	.135	.637	-.44	.20
		19	.122	.146	.682	-.22	.47
PM	18	19	.227	.117	.133	-.05	.50
		20+	.502*	.148	.002	.15	.85
	19	18	-.227	.117	.133	-.50	.05
		20+	.276	.161	.200	-.10	.65
	20+	18	-.502*	.148	.002	-.85	-.15
		19	-.276	.161	.200	-.65	.10
E	18	19	.176	.120	.307	-.11	.46
		20+	.197	.151	.393	-.16	.55
	19	18	-.176	.120	.307	-.46	.11
		20+	.021	.164	.991	-.36	.41
	20+	18	-.197	.151	.393	-.55	.16
		19	-.021	.164	.991	-.41	.36

*. The mean difference is significant at the 0.05 level.

Appendix C.7.2: Status

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
AOM	International Student	31	2.37	.661	.119	2.13	2.61	1	4
	Home Student UK	207	2.83	.609	.042	2.74	2.91	1	4
	EU Student	34	2.57	.643	.110	2.34	2.79	2	4
	Total	272	2.74	.637	.039	2.67	2.82	1	4
FM	International Student	31	2.07	.995	.179	1.71	2.44	0	4
	Home Student UK	207	2.63	.788	.055	2.52	2.74	0	4
	EU Student	34	2.51	.796	.136	2.23	2.79	1	4
	Total	272	2.55	.831	.050	2.45	2.65	0	4
LLA	International Student	31	2.38	.586	.105	2.17	2.60	1	4
	Home Student UK	207	2.64	.828	.058	2.53	2.75	0	4
	EU Student	34	2.53	.616	.106	2.31	2.74	2	4
	Total	272	2.60	.783	.047	2.50	2.69	0	4
PM	International Student	31	2.56	.783	.141	2.28	2.85	1	4
	Home Student UK	207	3.10	.883	.061	2.98	3.22	0	4
	EU Student	34	2.65	.657	.113	2.42	2.88	2	4
	Total	272	2.98	.871	.053	2.88	3.09	0	4
E	International Student	31	2.19	.877	.157	1.87	2.52	1	4
	Home Student UK	207	2.52	.875	.061	2.41	2.64	0	4
	EU Student	34	2.44	.828	.142	2.15	2.73	1	4
	Total	272	2.48	.872	.053	2.37	2.58	0	4

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
AOM	Between Groups	6.803	2	3.402	8.873	.000
	Within Groups	103.133	269	.383		
	Total	109.937	271			
FM	Between Groups	8.486	2	4.243	6.395	.002
	Within Groups	178.473	269	.663		
	Total	186.959	271			
LLA	Between Groups	1.962	2	.981	1.609	.202
	Within Groups	163.993	269	.610		
	Total	165.955	271			
PM	Between Groups	12.053	2	6.026	8.384	.000
	Within Groups	193.355	269	.719		
	Total	205.408	271			
E	Between Groups	3.010	2	1.505	1.992	.138
	Within Groups	203.287	269	.756		
	Total	206.297	271			

Kruskal-Wallis Test: Ranks

	Status	N	Mean Rank
LLA	International Student	31	107.74
	Home Student UK	207	144.05
	EU Student	34	116.78
	Total	272	
PM	International Student	31	96.73
	Home Student UK	207	148.67
	EU Student	34	98.69
	Total	272	

Test Statistics[a,b]

	LLA	PM
Chi-Square	8.202	21.729
df	2	2
Asymp. Sig.	.017	.000

a. Kruskal Wallis Test
b. Grouping Variable: Status

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Status	(J) Status	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
AOM	International Student	Home Student UK	-.456*	.119	.000	-.74	-.17
		EU Student	-.195	.154	.414	-.56	.17
	Home Student UK	International Student	.456*	.119	.000	.17	.74
		EU Student	.261	.115	.061	-.01	.53
	EU Student	International Student	.195	.154	.414	-.17	.56
		Home Student UK	-.261	.115	.061	-.53	.01
FM	International Student	Home Student UK	-.559*	.157	.001	-.93	-.19
		EU Student	-.441	.202	.077	-.92	.04
	Home Student UK	International Student	.559*	.157	.001	.19	.93
		EU Student	.118	.151	.713	-.24	.47
	EU Student	International Student	.441	.202	.077	-.04	.92
		Home Student UK	-.118	.151	.713	-.47	.24
LLA	International Student	Home Student UK	-.258	.150	.202	-.61	.10
		EU Student	-.148	.194	.727	-.60	.31
	Home Student UK	International Student	.258	.150	.202	-.10	.61
		EU Student	.110	.144	.728	-.23	.45
	EU Student	International Student	.148	.194	.727	-.31	.60
		Home Student UK	-.110	.144	.728	-.45	.23
PM	International Student	Home Student UK	-.535*	.163	.003	-.92	-.15
		EU Student	-.083	.211	.919	-.58	.41
	Home Student UK	International Student	.535*	.163	.003	.15	.92
		EU Student	.452*	.157	.012	.08	.82
	EU Student	International Student	.083	.211	.919	-.41	.58
		Home Student UK	-.452*	.157	.012	-.82	-.08
E	International Student	Home Student UK	-.331	.167	.119	-.73	.06
		EU Student	-.248	.216	.486	-.76	.26
	Home Student UK	International Student	.331	.167	.119	-.06	.73
		EU Student	.084	.161	.861	-.30	.46
	EU Student	International Student	.248	.216	.486	-.26	.76
		Home Student UK	-.084	.161	.861	-.46	.30

*. The mean difference is significant at the 0.05 level.

Appendix C.7.3: Funding

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
AOM	Self-Funded	42	2.62	.690	.106	2.41	2.84	1	4
	Self-Funded with Loan	220	2.79	.616	.042	2.71	2.87	1	4
	Scholarship/Sponsor	10	2.16	.550	.174	1.77	2.56	1	3
	Total	272	2.74	.637	.039	2.67	2.82	1	4
FM	Self-Funded	42	2.35	1.137	.175	1.99	2.70	0	4
	Self-Funded with Loan	220	2.60	.761	.051	2.50	2.70	1	4
	Scholarship/Sponsor	10	2.40	.718	.227	1.89	2.91	1	3
	Total	272	2.55	.831	.050	2.45	2.65	0	4
LLA	Self-Funded	42	2.69	.666	.103	2.48	2.89	2	4
	Self-Funded with Loan	220	2.59	.810	.055	2.48	2.70	0	4
	Scholarship/Sponsor	10	2.41	.618	.195	1.97	2.85	1	3
	Total	272	2.60	.783	.047	2.50	2.69	0	4
PM	Self-Funded	42	2.89	.793	.122	2.65	3.14	0	4
	Self-Funded with Loan	220	3.03	.866	.058	2.91	3.14	0	4
	Scholarship/Sponsor	10	2.30	1.059	.335	1.54	3.06	0	4
	Total	272	2.98	.871	.053	2.88	3.09	0	4
E	Self-Funded	42	2.57	.817	.126	2.32	2.83	1	4
	Self-Funded with Loan	220	2.48	.886	.060	2.36	2.60	0	4
	Scholarship/Sponsor	10	2.00	.685	.217	1.51	2.49	1	3
	Total	272	2.48	.872	.053	2.37	2.58	0	4

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
AOM	Between Groups	4.501	2	2.251	5.742	.004
	Within Groups	105.435	269	.392		
	Total	109.937	271			
FM	Between Groups	2.436	2	1.218	1.776	.171
	Within Groups	184.523	269	.686		
	Total	186.959	271			
LLA	Between Groups	.712	2	.356	.580	.561
	Within Groups	165.243	269	.614		
	Total	165.955	271			
PM	Between Groups	5.482	2	2.741	3.688	.026
	Within Groups	199.926	269	.743		
	Total	205.408	271			
E	Between Groups	2.652	2	1.326	1.752	.175
	Within Groups	203.645	269	.757		
	Total	206.297	271			

Kruskal-Wallis Test: Ranks

	Funding	N	Mean Rank
LLA	Self-Funded	42	137.71
	Self-Funded with Loan	220	137.46
	Scholarship/Sponsor	10	110.30
	Total	272	
PM	Self-Funded	42	126.07
	Self-Funded with Loan	220	140.78
	Scholarship/Sponsor	10	86.25
	Total	272	

Test Statistics[a,b]

	LLA	PM
Chi-Square	1.154	5.732
df	2	2
Asymp. Sig.	.561	.057

a. Kruskal Wallis Test
b. Grouping Variable: Funding

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Funding	(J) Funding	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
AOM	Self-Funded	Self-Funded with Loan	-.169	.105	.244	-.42	.08
		Scholarship/Sponsor	.460	.220	.095	-.06	.98
	Self-Funded with Loan	Self-Funded	.169	.105	.244	-.08	.42
		Scholarship/Sponsor	.629*	.202	.006	.15	1.11
	Scholarship/Sponsor	Self-Funded	-.460	.220	.095	-.98	.06
		Self-Funded with Loan	-.629*	.202	.006	-1.11	-.15
FM	Self-Funded	Self-Funded with Loan	-.250	.139	.175	-.58	.08
		Scholarship/Sponsor	-.052	.291	.982	-.74	.63
	Self-Funded with Loan	Self-Funded	.250	.139	.175	-.08	.58
		Scholarship/Sponsor	.197	.268	.742	-.43	.83
	Scholarship/Sponsor	Self-Funded	.052	.291	.982	-.63	.74
		Self-Funded with Loan	-.197	.268	.742	-.83	.43
LLA	Self-Funded	Self-Funded with Loan	.099	.132	.734	-.21	.41
		Scholarship/Sponsor	.278	.276	.572	-.37	.93
	Self-Funded with Loan	Self-Funded	-.099	.132	.734	-.41	.21
		Scholarship/Sponsor	.179	.253	.760	-.42	.78
	Scholarship/Sponsor	Self-Funded	-.278	.276	.572	-.93	.37
		Self-Funded with Loan	-.179	.253	.760	-.78	.42
PM	Self-Funded	Self-Funded with Loan	-.137	.145	.614	-.48	.21
		Scholarship/Sponsor	.593	.303	.126	-.12	1.31
	Self-Funded with Loan	Self-Funded	.137	.145	.614	-.21	.48
		Scholarship/Sponsor	.730*	.279	.025	.07	1.39
	Scholarship/Sponsor	Self-Funded	-.593	.303	.126	-1.31	.12
		Self-Funded with Loan	-.730*	.279	.025	-1.39	-.07
E	Self-Funded	Self-Funded with Loan	.091	.147	.808	-.25	.44
		Scholarship/Sponsor	.571	.306	.150	-.15	1.29
	Self-Funded with Loan	Self-Funded	-.091	.147	.808	-.44	.25
		Scholarship/Sponsor	.480	.281	.204	-.18	1.14
	Scholarship/Sponsor	Self-Funded	-.571	.306	.150	-1.29	.15
		Self-Funded with Loan	-.480	.281	.204	-1.14	.18

*. The mean difference is significant at the 0.05 level.

Appendix C.7.4: Selection

(UFS=unconditional firm status; IC=insurance choice; C= clearing)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
AOM	UFS	154	2.75	.612	.049	2.65	2.85	1	4
	IC	52	2.57	.668	.093	2.39	2.76	1	4
	C	66	2.85	.650	.080	2.69	3.01	1	4
	Total	272	2.74	.637	.039	2.67	2.82	1	4
FM	UFS	154	2.56	.837	.067	2.43	2.70	0	4
	IC	52	2.58	.913	.127	2.33	2.83	1	4
	C	66	2.50	.754	.093	2.31	2.68	1	4
	Total	272	2.55	.831	.050	2.45	2.65	0	4
LLA	UFS	154	2.60	.757	.061	2.48	2.72	0	4
	IC	52	2.66	.642	.089	2.48	2.84	2	4
	C	66	2.55	.936	.115	2.32	2.78	0	4
	Total	272	2.60	.783	.047	2.50	2.69	0	4
PM	UFS	154	2.89	.957	.077	2.73	3.04	0	4
	IC	52	3.11	.572	.079	2.95	3.26	2	4
	C	66	3.11	.834	.103	2.90	3.31	1	4
	Total	272	2.98	.871	.053	2.88	3.09	0	4
E	UFS	154	2.54	.898	.072	2.40	2.68	0	4
	IC	52	2.40	.730	.101	2.20	2.61	1	4
	C	66	2.39	.914	.113	2.16	2.61	1	4
	Total	272	2.48	.872	.053	2.37	2.58	0	4

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
AOM	Between Groups	2.345	2	1.173	2.932	.055
	Within Groups	107.591	269	.400		
	Total	109.937	271			
FM	Between Groups	.269	2	.134	.194	.824
	Within Groups	186.691	269	.694		
	Total	186.959	271			
LLA	Between Groups	.338	2	.169	.275	.760
	Within Groups	165.617	269	.616		
	Total	165.955	271			
PM	Between Groups	3.221	2	1.610	2.143	.119
	Within Groups	202.187	269	.752		
	Total	205.408	271			
E	Between Groups	1.382	2	.691	.907	.405
	Within Groups	204.915	269	.762		
	Total	206.297	271			

Kruskal-Wallis Test: Ranks

	Selection	N	Mean Rank
LLA	Unconditional Firm Status	154	135.80
	Insurance Choice	52	141.49
	Clearing	66	134.20
	Total	272	
PM	Unconditional Firm Status	154	129.84
	Insurance Choice	52	141.83
	Clearing	66	147.84
	Total	272	

Test Statistics[a,b]

	LLA	PM
Chi-Square	.279	2.844
df	2	2
Asymp. Sig.	.870	.241

a. Kruskal Wallis Test
b. Grouping Variable: Selection

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Selection	(J) Selection	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
AOM	UFS	IC	.180	.101	.182	-.06	.42
		C	-.103	.093	.514	-.32	.12
	IC	UFS	-.180	.101	.182	-.42	.06
		C	-.282*	.117	.044	-.56	-.01
	C	UFS	.103	.093	.514	-.12	.32
		IC	.282*	.117	.044	.01	.56
FM	UFS	IC	-.016	.134	.992	-.33	.30
		C	.068	.123	.844	-.22	.36
	IC	UFS	.016	.134	.992	-.30	.33
		C	.084	.154	.850	-.28	.45
	C	UFS	-.068	.123	.844	-.36	.22
		IC	-.084	.154	.850	-.45	.28
LLA	UFS	IC	-.061	.126	.878	-.36	.24
		C	.047	.115	.914	-.23	.32
	IC	UFS	.061	.126	.878	-.24	.36
		C	.108	.145	.739	-.24	.45
	C	UFS	-.047	.115	.914	-.32	.23
		IC	-.108	.145	.739	-.45	.24
PM	UFS	IC	-.219	.139	.257	-.55	.11
		C	-.220	.128	.199	-.52	.08
	IC	UFS	.219	.139	.257	-.11	.55
		C	.000	.161	1.000	-.38	.38
	C	UFS	.220	.128	.199	-.08	.52
		IC	.000	.161	1.000	-.38	.38
E	UFS	IC	.135	.140	.600	-.19	.47
		C	.150	.128	.473	-.15	.45
	IC	UFS	-.135	.140	.600	-.47	.19
		C	.015	.162	.995	-.37	.40
	C	UFS	-.150	.128	.473	-.45	.15
		IC	-.015	.162	.995	-.40	.37

*. The mean difference is significant at the 0.05 level.

Appendix C.8: Iteration 1: Answers to open-ended question

Academic and Organisational Matters (AOM)
Maybe the information about the integration of exchange students among local students during the lecturers/lessons, e.g. how does it process
Opportunities to further studies (MSc, PhD)
Reminder emails about registration times, dates, deadlines
Financial Matters (FM)
Not really, just worried about finance and travel.
Living, Leisure and Accommodation (LLA)
Cooking and eating
Information about medical for person live off campus
Is the campus safe for girls?
Personal Matters (PM)
Will I get support since I am bad at hearing (partially deaf)?
Is there a support group for gay people?
Where can I pray? (I am Muslim and wish to pursue my faith)
I'm dyslexic and really worried that I will fail my exams.
Employability (EM)
Information about summer jobs depending on study course
I am not enrolled in a placement programme but would like to get some work experience. How can I do that? Are there any internships during the summer break?
Can I decide not to do presentations in class and rather write an assignment? Because I'm scared of talking in front of people.
I'm only studying cause I didn't know what else to do. I hope I will get career advice so I know which job I like.

Appendix C.9: Iteration 2: Commencing students' expectations questionnaire

Brunel University 2013/14 – Student Expectations

This survey is conducted as part of a PhD programme in the Department of Information Systems and Computing, Brunel University, and aims to investigate the importance of university services to students. The research aims to analyse these services from a student's point of view and to improve the services through the application of various business tools for process optimisation.

☐ I herewith agree to participate in this survey and confirm that I am over 18 years old. Further, I understood that participation is voluntary and anonymous and all collected data will be kept confidential and only used for academic purposes.

You have the right to withdraw from this study at any point without penalty.

Section 1: Demographic Information

- Gender: ☐ Male ☐ Female
- Age: ☐ 18 ☐ 19 ☐ 20+
- Program: ☐ Full-time ☐ Part-time ☐ Sandwich Program
- Status: ☐ International Student ☐ Home Student (UK) ☐ EU Student
- Funding: ☐ Self-funded with Loan ☐ Scholarship/ Sponsor ☐ Self-funded
- Living: ☐ Off campus (private) ☐ Off campus (home/family) ☐ On campus
- Selection: ☐ Unconditional Firm Status ☐ Insurance Choice ☐ Clearing
- Disability: ☐ Do not want to disclose ☐ Yes: _____ ☐ No

Section 2: University Support and Guidance

Please indicate to what degree you agree with the following statements.
Please check only one answer option for each statement.

2.1 Student Support and Welfare	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. Individual support from my lecturers is important.	☐	☐	☐	☐	☐
2. Good communication with my lecturers is crucial.	☐	☐	☐	☐	☐
3. The library should have all resources I need available.	☐	☐	☐	☐	☐
4. Knowing the right contact person for my problems is essential.	☐	☐	☐	☐	☐
5. Having a general help desk to resolve my issues or direct me to the right person would be helpful.	☐	☐	☐	☐	☐
6. I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes).	☐	☐	☐	☐	☐
7. I do not expect the university to support me financially.	☐	☐	☐	☐	☐
8. It is important to have a contact person to talk about personal problems (e.g. bullying, addiction, stress).	☐	☐	☐	☐	☐
9. It is important to have psychologist or counselling services available on campus.	☐	☐	☐	☐	☐
10. The university should support me when I struggle academically.	☐	☐	☐	☐	☐
11. I would participate in extra-curricular courses offered by the university to improve my English/Maths/academic skills.	☐	☐	☐	☐	☐

2.2 Living and Leisure	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. It is important to limit my living expenses.	☐	☐	☐	☐	☐
2. As a student, it is necessary to learning how to save money in everyday life.	☐	☐	☐	☐	☐
3. Information about transportation and the surrounding area is important.	☐	☐	☐	☐	☐
4. Information about the night life on and off campus is important.	☐	☐	☐	☐	☐
5. A wide choice of shops, bars, restaurants and canteen on campus is important.	☐	☐	☐	☐	☐
6. I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food).	☐	☐	☐	☐	☐
7. I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and societies).	☐	☐	☐	☐	☐
8. Extra-curricular activities can have a negative effect on my studies.	☐	☐	☐	☐	☐
9. It is difficult to balance leisure time and studies.	☐	☐	☐	☐	☐
10. Campus safety is important.	☐	☐	☐	☐	☐

2.3 Academic Skills and Employability	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. Work experience is crucial for finding a job as a graduate.	☐	☐	☐	☐	☐
2. The university should support me to find a placement/job.	☐	☐	☐	☐	☐
3. Employability skills should be taught at university.	☐	☐	☐	☐	☐
4. It is important to interact with like-minded people (e.g. in terms of attitude, interests, and work ethics).	☐	☐	☐	☐	☐
5. It is worth going to university.	☐	☐	☐	☐	☐
6. I know exactly what I want to do after graduation.	☐	☐	☐	☐	☐
7. Graduates have a better chance in the job market.	☐	☐	☐	☐	☐
8. I am worried if I will find my desired job after graduation.	☐	☐	☐	☐	☐

2.4 Are there any additional areas/issues that are of particular importance for you?

_____

_____

_____

_____

_____

If you have any questions and/or are interested in the results of the research, please contact me under Helga.Lecca@brunel.ac.uk.

Thank you for your support in completing the questionnaire.

Appendix C.10: Iteration 2: Frequencies and descriptive statistics

Appendix C10.1: Student support and welfare (SW)

Frequencies

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
SW1	Individual support from my lecturers is important	135	130	3	-	-
SW2	Good communication with my lecturers is crucial	177	87	4	-	-
SW3	The library should have all resources I need available	194	70	4	-	-
SW4	Knowing the right contact person for my problems is essential	153	106	9	-	-
SW5	Having a general help desk to resolve my issues or direct me to the right person would be helpful	100	141	27	-	-
SW6	I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)	138	95	35	-	-
SW7	I do not expect the university to support me financially	20	85	116	39	8
SW8	It is important to have a contact person to talk to about personal problems (e.g. bullying, addiction, stress)	70	151	47	-	-
SW9	It is important to have psychologist or counselling services available on campus	65	116	85	2	-
SW10	The university should support me when I struggle academically	149	109	10	-	-
SW11	I would participate in extra-curricular courses offered by the university to improve my English/Maths/academic skills	65	124	68	11	-

Descriptive statistics

		Mean	Std. Dev.	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
SW1	Individual support from my lecturers is important	1.51	.523	.208	.149	-1.420	.297
SW2	Good communication with my lecturers is crucial	1.35	.510	.951	.149	-.351	.297
SW3	The library should have all resources I need available	1.29	.487	1.312	.149	.591	.297
SW4	Knowing the right contact person for my problems is essential	1.46	.563	.719	.149	-.513	.297
SW5	Having a general help desk to resolve my issues or direct me to the right person would be helpful	1.73	.633	.296	.149	-.664	.297
SW6	I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)	1.62	.707	.706	.149	-.726	.297
SW7	I do not expect the university to support me financially	2.74	.903	.171	.149	-.058	.297
SW8	It is important to have a contact person to talk to about personal problems (e.g. bullying, addiction, stress)	1.91	.656	.091	.149	-.676	.297
SW9	It is important to have psychologist or counselling services available on campus	2.09	.764	-.051	.149	-1.048	.297
SW10	The university should support me when I struggle academically	1.48	.571	.683	.149	-.537	.297
SW11	I would participate in extra-curricular courses offered by the university to improve my English/Maths/academic skills	2.09	.809	.299	.149	-.490	.297

Appendix C.10.2: Employability (EM)

Frequencies

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
EM1	Work experience is crucial for finding a job as a graduate	166	80	22	-	-
EM2	The university should support me to find a placement/job	154	84	30	-	-
EM3	Employability skills should be taught at university	126	118	24	-	-
EM4	It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)	108	119	41	-	-
EM5	It is worth going to university	161	76	31	-	-
EM6	I know exactly what I want to do after graduation	79	64	90	32	3
EM7	Graduates have a better chance in the job market	90	108	64	5	1
EM8	I am worried if I will find my desired job after graduation	47	115	83	23	-

Descriptive statistics

		Mean	Std. Dev.	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
EM1	Work experience is crucial for finding a job as a graduate	1.46	.644	1.074	.149	.026	.297
EM2	The university should support me to find a placement/job	1.54	.689	.905	.149	-.411	.297
EM3	Employability skills should be taught at university	1.62	.645	.558	.149	-.643	.297
EM4	It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)	1.75	.704	.394	.149	-.930	.297
EM5	It is worth going to university	1.51	.695	.992	.149	-.302	.297
EM6	I know exactly what I want to do after graduation	2.31	1.056	.192	.149	-.966	.297
EM7	Graduates have a better chance in the job market	1.95	.826	.452	.149	-.361	.297
EM8	I am worried if I will find my desired job after graduation	2.31	.859	.188	.149	-.594	.297

Appendix C.10.3: Living and leisure (LL)

Frequencies

		Strongly agree	Agree	Neutral	Disagree	Strongly disagree
LL1	It is important to limit my living expenses	77	173	18	-	-
LL2	As a student, it is necessary to learn how to save money in everyday life	118	135	15	-	-
LL3	Information about transportation and the surrounding area is important	112	140	16	-	-
LL4	Information about the night life on and off campus is important	82	114	64	7	1
LL5	A wide choice of shops, bars, restaurants and canteen on campus is important	109	118	41	-	-
LL6	I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	85	36	84	45	18
LL7	I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	116	95	56	1	-
LL8	Extra-curricular activities can have a negative effect on my studies	20	42	82	84	40
LL9	It is difficult to balance leisure time and studies	23	60	111	64	10
LL10	Campus safety is important	181	84	3	-	-

Descriptive statistics

		Mean	Std. Dev.	Skewness		Kurtosis	
		Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
LL1	It is important to limit my living expenses	1.78	.554	-.044	.149	-.241	.297
LL2	As a student, it is necessary to learn how to save money in everyday life	1.62	.591	.363	.149	-.687	.297
LL3	Information about transportation and the surrounding area is important	1.64	.592	.307	.149	-.673	.297
LL4	Information about the night life on and off campus is important	2.00	.828	.446	.149	-.262	.297
LL5	A wide choice of shops, bars, restaurants and canteen on campus is important	1.75	.705	.403	.149	-.933	.297
LL6	I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	2.53	1.276	.197	.149	-1.081	.297
LL7	I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	1.78	.782	.448	.149	-1.085	.297
LL8	Extra-curricular activities can have a negative effect on my studies	3.31	1.130	-.310	.149	-.597	.297
LL9	It is difficult to balance leisure time and studies	2.92	.976	-.151	.149	-.374	.297
LL10	Campus safety is important	1.34	.496	.975	.149	-.405	.297

Appendix C.11: Iteration 2: Test of normality

Appendix C.11.1: Skewness and kurtosis

(Due to the large amount of data, these tables show a summary of the skewness and kurtosis values, rather than all statistics provided through running the test of normality in SPSS)

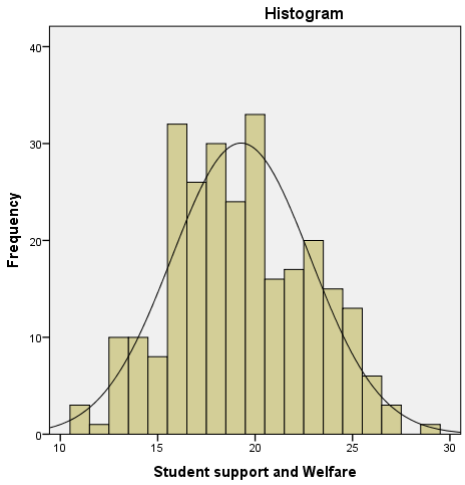
	Skewness			Kurtosis		
	Statistic	Std. Error	z	Statistic	Std. Error	z
SW1	.208	.149	1.395	-1.420	.297	-4.781
SW2	.951	.149	6.382	-.351	.297	-1.181
SW3	1.312	.149	8.805	.591	.297	1.989
SW4	.719	.149	4.825	-.513	.297	-1.727
SW5	.296	.149	1.986	-.664	.297	-2.235
SW6	.706	.149	4.738	-.726	.297	-2.444
SW7	.171	.149	1.147	-.058	.297	-0.195
SW8	.091	.149	0.610	-.676	.297	-2.276
SW9	-.051	.149	-0.342	-1.048	.297	-3.528
SW10	.683	.149	4.583	-.537	.297	-1.808
SW11	.299	.149	2.006	-.490	.297	-1.649

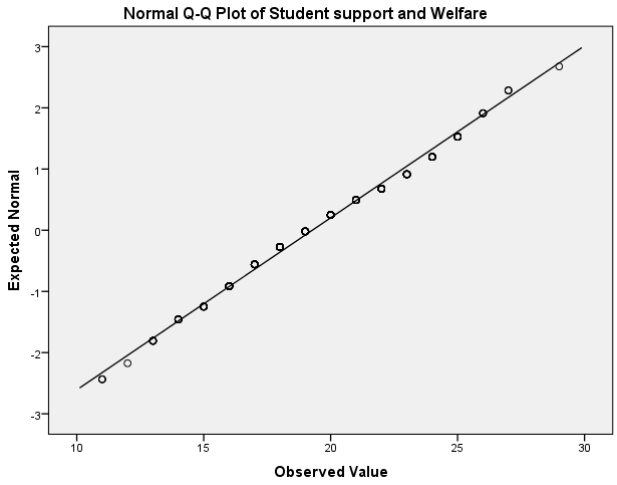
	Skewness			Kurtosis		
	Statistic	Std. Error	z	Statistic	Std. Error	z
EM1	1.074	.149	7.208	.026	.297	0.087
EM2	.905	.149	6.073	-.411	.297	1.383
EM3	.558	.149	3.744	-.643	.297	-2.164
EM4	.394	.149	2.644	-.930	.297	-3.131
EM5	.992	.149	6.657	-.302	.297	-1.016
EM6	.192	.149	1.288	-.966	.297	-3.252
EM7	.452	.149	3.033	-.361	.297	-1.215
EM8	.188	.149	1.261	-.594	.297	-2.000

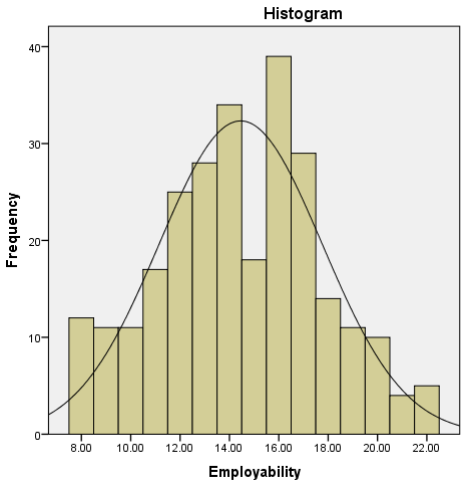
	Skewness			Kurtosis		
	Statistic	Std. Error	z	Statistic	Std. Error	z
LL1	-.044	.149	-0.295	-.241	.297	-0.811
LL2	.363	.149	2.436	-.687	.297	-2.313
LL3	.307	.149	2.060	-.673	.297	-2.265
LL4	.446	.149	2.993	-.262	.297	-0.882
LL5	.403	.149	2.704	-.933	.297	-3.141
LL6	.197	.149	1.322	-1.081	.297	-3.639
LL7	.448	.149	3.006	-1.085	.297	-3.653
LL8	-.310	.149	-2.080	-.597	.297	-2.010
LL9	-.151	.149	-1.013	-.374	.297	-1.259
LL10	.975	.149	6.543	-.405	.297	-1.363

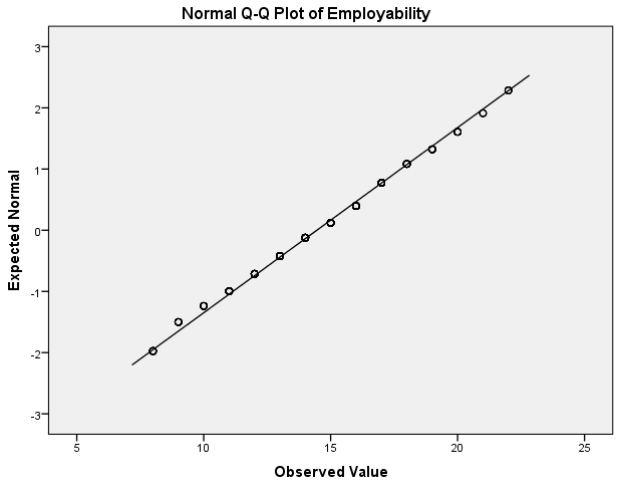
Appendix C.11.2: Normality plots and histograms

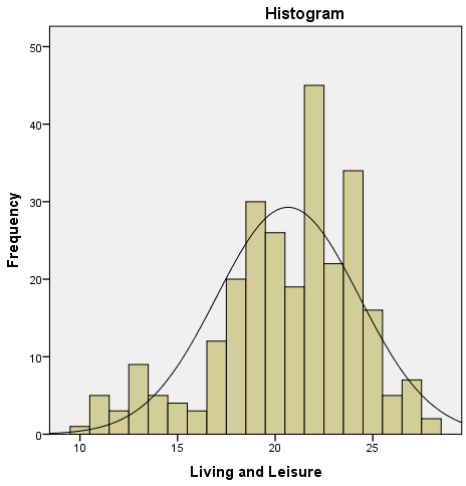
(Due to the large amount of data, only the histograms and Q-Q plots for the factors rather than individual questionnaire items have been presented)

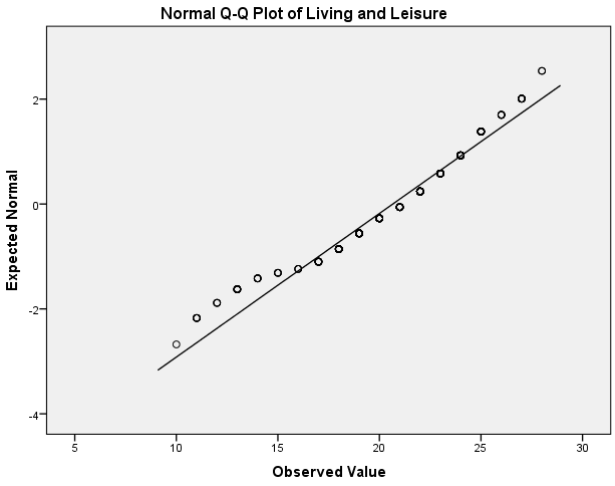












Appendix C.12: Iteration 2: Cross-tabulation and chi-square test

Appendix C.12.1: Significant relationships between variables – Overview

2.1 Student Support and Welfare	Gender	Age	Study mode	Status	Funding	Accom.	Selection	Disability
1. Individual support from my lecturers is important.					F			
2. Good communication with my lecturers is crucial.					F			
3. The library should have all resources I need available.	G				F		X	
4. Knowing the right contact person for my problems is essential.								
5. Having a general help desk to resolve my issues or direct me to the right person would be helpful.					F			
6. I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes).					F		X	D
7. I do not expect the university to support me financially.							X	
8. It is important to have a contact person to talk about personal problems (e.g. bullying, addiction, stress).								
9. It is important to have psychologist or counselling services available on campus.	G							
10. The university should support me when I struggle academically.	G		P					
11. I would participate in extra-curricular courses offered by the university to improve my English/Maths/academic skills.		A						
2.2 Employability	Gender	Age	Study mode	Status	Funding	Accom.	Selection	Disability
1. Work experience is crucial for finding a job as a graduate.	G		P			TA	X	
2. The university should support me to find a placement/job.	G	A						D
3. Employability skills should be taught at university.	G	A			F	TA		
4. It is important to interact with like-minded people (e.g. in terms of attitude, interests, and work ethics).		A					X	
5. It is worth going to university.	G			S				
6. I know exactly what I want to do after graduation.						TA		**D**
7. Graduates have a better chance in the job market.		A		S		TA	X	
8. I am worried if I will find my desired job after graduation.	G	A				TA		D
2.3 Living and Leisure	Gender	Age	Study mode	Status	Funding	Accom.	Selection	Disability
1. It is important to limit my living expenses.					F			D
2. As a student, it is necessary to learning how to save money in everyday life.							X	
3. Information about transportation and the surrounding area is important.		A						
4. Information about the night life on and off campus is important.								
5. A wide choice of shops, bars, restaurants and canteen on campus is important.		A			F		X	
6. I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food).					F	TA	X	
7. I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and societies).		A			F			
8. Extra-curricular activities can have a negative effect on my studies.	G			S		TA	X	
9. It is difficult to balance leisure time and studies.				S				
10. Campus safety is important.	G							
TOTAL	**10**	**9**	**2**	**4**	**10**	**8**	**10**	**5**

Due to the large amount of data, only the results with significant p-values ($p \leq .05$) have been reported in the tables below.

Appendix C.12.2: Cross-tabulation and chi-square test: Gender

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Student Support and Welfare									
The library should have all resources I need available.									
Males	98	41	4	0	0	143	6.423[a] (*df*=2)	.040	.135
Females	96	29	0	0	0	125			
It is important to have psychologist or counselling services available on campus									
Males	25	58	59	1	0	143	15.438[a] (*df*=3)	.001	.238
Females	40	58	26	1	0	125			
The university should support me when I struggle academically									
Males	68	68	7	0	0	143	8.251 (*df*=2)	.016	.175
Females	81	41	3	0	0	125			
Employability									
Work experience is crucial for finding a job as a graduate									
Males	77	48	18	0	0	143	11.821 (*df*=2)	.003	.210
Females	89	32	4	0	0	125			
The university should support me to find a placement/job									
Males	69	49	25	0	0	143	16.193 (*df*=2)	<.001	.246
Females	85	35	5	0	0	125			
Employability skills should be taught at university									
Males	59	66	18	0	0	143	6.992 (*df*=2)	.030	.162
Females	67	52	6	0	0	125			
It is worth going to university									
Males	76	47	20	0	0	143	6.198 (*df*=2)	.045	.152
Females	85	29	11	0	0	125			
I am worried if I will find my desired job after graduation									
Males	19	59	45	20	0	143	13.811 (*df*=3)	.003	.227
Females	28	56	38	3	0	125			
Living and Leisure									
Extra-curricular activities can have a negative effect on my studies									
Males	12	29	41	36	25	143	9.945 (*df*=4)	.041	.193
Females	8	13	41	48	15	125			
Campus safety is important									
Males	80	60	3	0	0	143	21.330[a] (*df*=2)	<.001	.271
Females	101	24	0	0	0	125			

[a]) The minimum expected cell frequency is violated as one or more cells have expected count less than 5. Therefore, the Likelihood Ratio, rather than Pearson Chi-Square is measured.

Appendix C.12.3: Cross-tabulation and chi-square test: Age

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Student Support and Welfare									
I would participate in extra-curricular courses offered by the university to improve my English/Maths/academic skills									
18	29	72	50	7	0	158	12.850 (*df*=6)	.045	.155
19	25	41	13	3	0	82			
20+	11	11	5	1	0	28			
Employability									
The university should support me to find a placement/job									
18	87	58	13	0	0	158	9.603 (*df*=4)	.048	.134
19	48	19	15	0	0	82			
20+	19	7	2	0	0	28			
Employability should be taught at university									
18	70	77	11	0	0	158	10.874 (*df*=4)	.028	.142
19	41	28	13	0	0	82			
20+	15	13	0	0	0	28			
It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)									
18	58	74	26	0	0	158	12.153 (*df*=4)	.016	.151
19	40	27	15	0	0	82			
20+	10	18	0	0	0	28			
Graduates have a better chance in the job market									
18	46	63	48	1	0	158	23.088[a] (*df*=8)	.003	.203
19	35	29	15	2	1	82			
20+	9	16	1	2	0	28			
I am worried if I will find my desired job after graduation									
18	31	57	56	14	0	158	15.910 (*df*=6)	.014	.172
19	15	37	23	7	0	82			
20+	1	21	4	2	0	28			
Living and Leisure									
Information about the night life on and off campus is important									
18	57	65	32	4	0	158	16.124[a] (*df*=8)	.041	.174
19	18	32	29	2	1	82			
20+	7	17	3	1	0	28			
A wide choice of shops, bars, restaurants and canteen on campus is important									
18	70	71	17	0	0	158	12.303 (*df*=4)	.015	.152
19	30	38	14	0	0	82			
20+	9	9	10	0	0	28			
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)									
18	74	61	23	0	0	158	14.514[a] (*df*=6)	.024	.166
19	32	22	27	1	0	82			
20+	10	12	6	0	0	28			

[a]) The minimum expected cell frequency is violated as one or more cells have expected count less than 5. Therefore, the Likelihood Ratio, rather than Pearson Chi-Square is measured.

Appendix C.12.4: Cross-tabulation and chi-square test: Mode of study

(FT = full-time programme, SP = Sandwich programme)

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Student Support and Welfare									
The university should support me when I struggle academically									
FT	137	89	8	0	0	234	6.2252 (*df*=2)	.038	.156
SP	12	20	2	0	0	34			
Employability									
Work experience is crucial for finding a job as a graduate									
FT	139	76	19	0	0	234	6.204 (*df*=3)	.045	.152
SP	27	4	3	0	0	34			

Appendix C.12.5: Cross-tabulation and chi-square test: Status

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Employability									
It is worth going to university									
Intern.	2	2	1	0	0	5	18.062[a] (*df*=4)	.008	.184
UK	147	67	7	0	0	234			
EU	12	7	10	0	0	29			
Graduates have a better chance in the job market									
Intern.	0	5	0	0	0	5	17.542[a] (*df*=8)	.025	.188
UK	77	92	60	5	0	234			
EU	13	11	4	0	1	29			
Living and Leisure									
Extra-curricular activities can have a negative effect on my studies									
Intern.	0	0	5	0	0	5	18.537[a] (*df*=8)	.018	.194
UK	14	37	71	76	36	234			
EU	6	5	6	8	4	29			
It is difficult to balance leisure time and studies									
Intern.	0	0	4	1	0	5	15.596[a] (*df*=8)	.049	.186
UK	15	54	98	58	9	234			
EU	8	6	9	5	1	29			

[a]) The minimum expected cell frequency is violated as one or more cells have expected count less than 5. Therefore, the Likelihood Ratio, rather than Pearson Chi-Square is measured.

Appendix C.12.6: Cross-tabulation and chi-square test: Funding

(SFwL= self-funded with loan; S/S= scholarship/sponsor; SF= self-funded; L/S= loan and scholarship)

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Student Support and Welfare									
Individual support from my lecturers is important									
SFwL	94	104	3	0	0	200	14.733[a] (*df*=6)	.022	.159
S/S	22	9	0	0	0	31			
SF	8	15	0	0	0	23			
L/S	11	3	0	0	0	14			
Good communication with my lecturers is crucial									
SFwL	131	67	2	0	0	200	16.212[a] (*df*=6)	.013	.189
S/S	25	6	0	0	0	31			
SF	9	12	2	0	0	23			
L/S	12	2	0	0	0	14			
The library should have all resources I need available									
SFwL	143	55	2	0	0	200	13.489[a] (*df*=6)	.036	.164
S/S	26	3	2	0	0	31			
SF	13	10	0	0	0	23			
L/S	12	2	0	0	0	14			
Having a general help desk to resolve my issues or direct me to the right person would be helpful									
SFwL	73	105	22	0	0	200	14.658[a] (*df*=6)	.023	.154
S/S	15	14	2	0	0	31			
SF	3	17	3	0	0	23			
L/S	9	5	0	0	0	14			
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)									
SFwL	101	73	26	0	0	200	18.938[a] (*df*=6)	.004	.179
S/S	19	5	7	0	0	31			
SF	7	14	2	0	0	23			
L/S	11	3	0	0	0	14			
Employability									
Employability skills should be taught at university									
SFwL	88	94	18	0	0	200	14.503[a] (*df*=6)	.024	.161
S/S	15	15	1	0	0	31			
SF	12	6	5	0	0	23			
L/S	11	3	0	0	0	14			
Living and Leisure									
It is important to limit my living expenses									
SFwL	63	123	14	0	0	200	13.028[a] (*df*=6)	.043	.152
S/S	4	26	1	0	0	31			
SF	7	16	0	0	0	23			
L/S	3	8	3	0	0	14			
A wide choice of shops, bars, restaurants and canteen on campus is important									
SFwL	84	90	26	0	0	200	15.953[a] (*df*=6)	.014	.166
S/S	12	9	10	0	0	31			
SF	5	13	5	0	0	23			
L/S	8	6	0	0	0	14			
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)									
SFwL	51	25	69	39	16	200	41.572[a] (*df*=12)	<.001	.218
S/S	21	1	7	2	0	31			
SF	6	5	8	3	1	23			
L/S	7	5	0	1	1	14			
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)									
SFwL	83	69	47	1	0	200	23.038[a] (*df*=9)	.006	.159
S/S	19	7	5	0	0	31			
SF	4	15	4	0	0	23			
L/S	10	4	0	0	0	14			

[a]) The minimum expected cell frequency is violated as one or more cells have expected count less than 5. Therefore, the Likelihood Ratio, rather than Pearson Chi-Square is measured.

Appendix C.12.7: Cross-tabulation and chi-square test: Type of Accommodation

(Off = off-campus accommodation; On = on campus student accommodation)

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Employability									
Work experience is crucial for finding a job as a graduate									
Off	94	28	17	0	0	139	16.311 (*df*=2)	<.001	.247
On	72	52	5	0	0	129			
Employability skills should be taught at university									
Off	81	49	9	0	0	139	14.823 (*df*=2)	.001	.235
On	45	69	15	0	0	129			
I know exactly what I want to do after graduation									
Off	55	42	36	6	0	139	37.193 (*df*=4)	<.001	.373
On	24	22	54	26	3	129			
Graduates have a better chance in the job market									
Off	48	46	41	4	0	139	10.851[a] (*df*=4)	.028	.196
On	42	62	23	1	1	129			
I am worried if I will find my desired job after graduation									
Off	29	50	43	17	0	139	9.540 (*df*=3)	.023	.189
On	18	65	40	6	0	129			
Living and Leisure									
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)									
Off	62	22	35	13	7	139	30.586 (*df*=4)	<.001	.338
On	23	14	49	32	11	129			
Extra-curricular activities can have a negative effect on my studies									
Off	12	22	52	34	19	139	9.586 (*df*=4)	.048	.189
On	8	20	30	50	21	129			
Campus safety is important									
Off	86	50	3	0	0	139	7.300[a] (*df*=2)	.026	.151
On	95	34	0	0	0	129			

[a]) The minimum expected cell frequency is violated as one or more cells have expected count less than 5. Therefore, the Likelihood Ratio, rather than Pearson Chi-Square is measured.

Appendix C.12.8: Cross-tabulation and chi-square test: Selection

(UFS = unconditional firm status, IC = insurance choice, C = clearing)

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Student Support and Welfare									
The library should have all resources I need available									
UFS	153	53	0	0	0	206	12.422[a] (*df*=4)	.014	.162
IC	22	8	2	0	0	32			
C	19	9	2	0	0	30			
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)									
UFS	109	79	18	0	0	206	20.402 (*df*=4)	<.001	.196
IC	19	4	9	0	0	32			
C	10	12	8	0	0	30			
I do not expect the university to support me financially									
UFS	12	62	97	28	7	206	18.994[a] (*df*=8)	.015	.181
IC	5	12	5	9	1	32			
C	3	11	14	2	0	30			
Employability									
Work experience is crucial for finding a job as a graduate									
UFS	133	63	10	0	0	206	13.564 (*df*=4)	.009	.173
IC	20	7	5	0	0	32			
C	13	10	7	0	0	30			
It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)									
UFS	84	95	27	0	0	206	14.799 (*df*=4)	.005	.166
IC	10	10	12	0	0	32			
C	14	14	2	0	0	30			
Graduates have a better chance in the job market									
UFS	77	78	48	2	1	206	19.645[a] (*df*=8)	.012	.205
IC	9	16	4	3	0	32			
C	4	14	12	0	0	30			
Living and Leisure									
As a student, it is necessary to learn how to save money in everyday life									
UFS	93	104	9	0	0	206	15.126 (*df*=4)	.004	.168
IC	16	16	0	0	0	32			
C	9	15	6	0	0	30			
A wide choice of shops, bars, restaurants and canteen on campus is important									
UFS	91	87	28	0	0	206	10.456 (*df*=4)	.033	.140
IC	8	14	10	0	0	32			
C	10	17	3	0	0	30			
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)									
UFS	59	33	62	36	16	206	21.327[a] (*df*=8)	.006	.173
IC	10	3	14	3	2	32			
C	16	0	8	6	0	30			
Extra-curricular activities can have a negative effect on my studies									
UFS	14	30	69	65	28	206	19.157[a] (*df*=8)	.014	.189
IC	1	4	4	15	8	32			
C	5	8	9	4	4	30			

[a]) The minimum expected cell frequency is violated as one or more cells have expected count less than 5. Therefore, the Likelihood Ratio, rather than Pearson Chi-Square is measured.

Appendix C.12.9: Cross-tabulation and chi-square test: Disability

(DNW= do not want to disclose; no= no disability; yes= any disability)

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	Total	Pearson Chi-Square Value	Asymp. Sig. (*p*)	Cramer's V
Student Support and Welfare									
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)									
DNW	5	0	3	0	0	8	11.089[a] (*df*=4)	.026	.134
No	131	90	31	0	0	252			
Yes	2	5	1	0	0	8			
Employability									
The university should support me to find a placement/job									
DNW	5	3	0	0	0	8	13.005[a] (*df*=4)	.011	.165
No	145	81	26	0	0	252			
Yes	4	0	4	0	0	8			
I know exactly what I want to do after graduation									
DNW	0	1	7	0	0	8	20.702[a] (*df*=8)	.008	.216
No	78	59	81	32	2	252			
Yes	1	4	2	0	1	8			
I am worried if I will find my desired job after graduation									
DNW	3	5	0	0	0	8	13.136[a] (*df*=6)	.041	.136
No	44	106	81	21	0	252			
Yes	0	4	2	2	0	8			
Living and Leisure									
It is important to limit my living expenses									
DNW	2	3	3	0	0	8	14.654[a] (*df*=4)	.005	.192
No	75	164	13	0	0	252			
Yes	0	6	2	0	0	8			

[a]) The minimum expected cell frequency is violated as one or more cells have expected count less than 5. Therefore, the Likelihood Ratio, rather than Pearson Chi-Square is measured.

Appendix C.13: Iteration 2: T-test and Mann-Whitney U test

Appendix C.13.1: Gender

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Work experience is crucial for finding a job as a graduate	Equal variances assumed	24.489	.000	3.462	266	.001	.267	.077	.115	.419
	Equal variances not assumed			3.526	260.681	.000	.267	.076	.118	.417
The university should support me to find a placement/job	Equal variances assumed	22.196	.000	4.053	266	.000	.332	.082	.171	.494
	Equal variances not assumed			4.133	259.491	.000	.332	.080	.174	.491
Employability skills should be taught at university	Equal variances assumed	1.315	.252	2.574	266	.011	.201	.078	.047	.355
	Equal variances not assumed			2.598	265.998	.010	.201	.077	.049	.354
It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)	Equal variances assumed	.002	.961	2.414	266	.016	.206	.085	.038	.374
	Equal variances not assumed			2.428	265.376	.016	.206	.085	.039	.373
It is worth going to university	Equal variances assumed	5.345	.022	2.375	266	.018	.200	.084	.034	.366
	Equal variances not assumed			2.393	265.795	.017	.200	.084	.035	.365
I know exactly what I want to do after graduation	Equal variances assumed	.000	.988	-2.198	266	.029	-.282	.128	-.535	-.029
	Equal variances not assumed			-2.199	261.784	.029	-.282	.128	-.535	-.030
I am worried if I will find my desired job after graduation	Equal variances assumed	6.951	.009	3.227	266	.001	.334	.103	.130	.537
	Equal variances not assumed			3.256	265.999	.001	.334	.102	.132	.535
As a student, it is necessary to learn how to save money in everyday life	Equal variances assumed	.000	.991	2.287	266	.023	.164	.072	.023	.306
	Equal variances not assumed			2.299	265.153	.022	.164	.071	.024	.305
Information about the night life on and off campus is important	Equal variances assumed	.529	.468	-2.154	266	.032	-.217	.101	-.415	-.019
	Equal variances not assumed			-2.163	264.539	.031	-.217	.100	-.414	-.019
Campus safety is important	Equal variances assumed	70.048	.000	4.599	266	.000	.270	.059	.154	.385
	Equal variances not assumed			4.694	258.206	.000	.270	.057	.156	.383

Mann-Whitney Test Statistics				
	Mann-Whitney U	**Wilcoxon W**	**Z**	**Asymp. Sig. (2-tailed)**
Student Support and Welfare				
It is important to have psychologist or counselling services available on campus	6699.500	14574.500	-3.784	.000
The university should support me when I struggle academically	7354.500	15229.500	-2.867	.004
Employability				
Work experience is crucial for finding a job as a graduate	7194.500	15069.500	-3.211	.001
The university should support me to find a placement/job	6857.500	14732.500	-3.725	.000
Employability skills should be taught at university	7564.500	15439.500	-2.410	.016
It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)	7582.000	15457.000	-2.332	.020
It is worth going to university	7578.500	15453.500	-2.465	.014
I know exactly what I want to do after graduation	7582.500	17878.500	-2.230	.026
I am worried if I will find my desired job after graduation	7200.000	15075.000	-2.917	.004
Living and Leisure				
As a student, it is necessary to learn how to save money in everyday life	7705.500	15580.500	-2.194	.028
Information about the night life on and off campus is important	7541.500	17837.500	-2.350	.019
Campus safety is important	6680.000	14555.000	-4.386	.000

Appendix C.13.2: Mode of study

Independent Samples Test											
		Levene's Test for Equality of Variances		t-test for Equality of Means							
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
The university should support me when I struggle academically	Equal variances assumed	.489	.485	-2.480	266	.014	-.257	.104	-.461	-.053
	Equal variances not assumed			-2.429	42.584	.019	-.257	.106	-.471	-.044
Graduates have a better chance in the job market	Equal variances assumed	.612	.435	-2.157	266	.032	-.325	.151	-.622	-.028
	Equal variances not assumed			-1.948	40.633	.058	-.325	.167	-.662	.012
Information about transportation and the surrounding area is important	Equal variances assumed	.032	.857	2.128	266	.034	.230	.108	.017	.442
	Equal variances not assumed			2.216	44.383	.032	.230	.104	.021	.439
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	Equal variances assumed	.235	.628	2.490	266	.013	.577	.232	.121	1.034
	Equal variances not assumed			2.569	44.091	.014	.577	.225	.124	1.030

Mann-Whitney Test Statistics				
	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Student Support and Welfare				
The university should support me when I struggle academically	3044.000	30539.000	-2.536	.011
Employability				
Work experience is crucial for finding a job as a graduate	3258.000	3853.000	-1.988	.047
Living and Leisure				
Information about transportation and the surrounding area is important	3168.000	3763.000	-2.166	.030
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	2969.500	3564.500	-2.476	.013

Appendix C.13.3: Type of accommodation

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
It is important to have a contact person to talk to about personal problems (e.g. bullying, addiction, stress)	Equal variances assumed	5.224	.023	-2.075	266	.039	-.165	.080	-.322	-.008
	Equal variances not assumed			-2.078	265.742	.039	-.165	.080	-.322	-.009
Employability skills should be taught at university	Equal variances assumed	.497	.482	-3.703	266	.000	-.285	.077	-.437	-.134
	Equal variances not assumed			-3.698	262.500	.000	-.285	.077	-.437	-.133
I know exactly what I want to do after graduation	Equal variances assumed	3.314	.070	-6.260	266	.000	-.756	.121	-.994	-.518
	Equal variances not assumed			-6.224	252.949	.000	-.756	.121	-.995	-.517
It is important to limit my living expenses	Equal variances assumed	3.856	.051	2.132	266	.034	.143	.067	.011	.276
	Equal variances not assumed			2.132	264.509	.034	.143	.067	.011	.276
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	Equal variances assumed	3.681	.056	-5.463	266	.000	-.810	.148	-1.101	-.518
	Equal variances not assumed			-5.470	265.524	.000	-.810	.148	-1.101	-.518
Campus safety is important	Equal variances assumed	20.646	.000	2.315	266	.021	.139	.060	.021	.258
	Equal variances not assumed			2.331	262.614	.021	.139	.060	.022	.257

Mann-Whitney Test Statistics				
	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
Student Support and Welfare				
It is important to have a contact person to talk to about personal problems (e.g. bullying, addiction, stress)	7781.000	17511.000	-2.092	.036
I would participate in extra-curricular courses offered by the university to improve my English/ Maths/ academic skills	7756.000	17486.000	-2.045	.041
Employability				
Employability skills should be taught at university	6811.500	16541.500	-3.775	.000
I know exactly what I want to do after graduation	5436.000	15166.000	-5.800	.000
Living and Leisure				
It is important to limit my living expenses	7844.000	7844.000	-2.104	.035
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	5716.000	15446.000	-5.315	.000
Extra-curricular activities can have a negative effect on my studies	7753.500	17483.500	-1.979	.048
Campus safety is important	7859.000	16244.000	-2.146	.032

Appendix C.13.4: Disability

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
It is important to limit my living expenses	Equal variances assumed	.487	.486	-2.575	258	.011	-.496	.193	-.875	-.117
	Equal variances not assumed			-2.968	7.614	.019	-.496	.167	-.885	-.107
Extra-curricular activities can have a negative effect on my studies	Equal variances assumed	3.969	.047	-1.743	258	.082	-.702	.403	-1.496	.091
	Equal variances not assumed			-2.539	8.028	.035	-.702	.277	-1.340	-.065

	It is important to limit my living expenses
Mann-Whitney U	583.000
Wilcoxon W	32461.000
Z	-2.432
Asymp. Sig. (2-tailed)	.015

Appendix C.14: Iteration 2: ANOVA and Kruskal-Wallis test

Appendix C.14.1: Age

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
I would participate in extra-curricular courses offered by the university to improve my English/ Maths/academic skills	18	158	2.22	.795	.063	2.10	2.35	1	4
	19	82	1.93	.782	.086	1.75	2.10	1	4
	20+	28	1.86	.848	.160	1.53	2.19	1	4
	Total	268	2.09	.809	.049	2.00	2.19	1	4
Information about the night life on and off campus is important	18	158	1.89	.811	.064	1.77	2.02	1	4
	19	82	2.22	.861	.095	2.03	2.41	1	5
	20+	28	1.93	.716	.135	1.65	2.21	1	4
	Total	268	2.00	.828	.051	1.90	2.10	1	5
A wide choice of shops, bars, restaurants and canteen on campus is important	18	158	1.66	.664	.053	1.56	1.77	1	3
	19	82	1.80	.710	.078	1.65	1.96	1	3
	20+	28	2.04	.838	.158	1.71	2.36	1	3
	Total	268	1.75	.705	.043	1.66	1.83	1	3
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	18	158	1.68	.716	.057	1.56	1.79	1	3
	19	82	1.96	.881	.097	1.77	2.16	1	4
	20+	28	1.86	.756	.143	1.56	2.15	1	3
	Total	268	1.78	.782	.048	1.69	1.88	1	4
It is difficult to balance leisure time and studies	18	158	3.04	.944	.075	2.89	3.19	1	5
	19	82	2.68	.954	.105	2.47	2.89	1	5
	20+	28	2.93	1.120	.212	2.49	3.36	1	5
	Total	268	2.92	.976	.060	2.80	3.04	1	5
Campus safety is important	18	158	1.40	.529	.042	1.32	1.48	1	3
	19	82	1.23	.425	.047	1.14	1.32	1	2
	20+	28	1.29	.460	.087	1.11	1.46	1	2
	Total	268	1.34	.496	.030	1.28	1.40	1	3

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
I would participate in extra-curricular courses offered by the university to improve my English/ Maths/academic skills	Between Groups	6.432	2	3.216	5.065	.007
	Within Groups	168.236	265	.635		
	Total	174.668	267			
Information about the night life on and off campus is important	Between Groups	5.919	2	2.960	4.429	.013
	Within Groups	177.077	265	.668		
	Total	182.996	267			
A wide choice of shops, bars, restaurants and canteen on campus is important	Between Groups	3.682	2	1.841	3.780	.024
	Within Groups	129.064	265	.487		
	Total	132.746	267			
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	Between Groups	4.591	2	2.295	3.829	.023
	Within Groups	158.857	265	.599		
	Total	163.448	267			
It is difficult to balance leisure time and studies	Between Groups	6.809	2	3.404	3.647	.027
	Within Groups	247.385	265	.934		
	Total	254.194	267			
Campus safety is important	Between Groups	1.585	2	.792	3.271	.040
	Within Groups	64.192	265	.242		
	Total	65.776	267			

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
I would participate in extra-curricular courses offered by the university to improve my English/Maths/academic skills	18	19	.295*	.108	.019	.04	.55
		20+	.364	.163	.068	-.02	.75
	19	18	-.295*	.108	.019	-.55	-.04
		20+	.070	.174	.916	-.34	.48
	20+	18	-.364	.163	.068	-.75	.02
		19	-.070	.174	.916	-.48	.34
Information about the night life on and off campus is important	18	19	-.327*	.111	.010	-.59	-.06
		20+	-.036	.168	.975	-.43	.36
	19	18	.327*	.111	.010	.06	.59
		20+	.291	.179	.236	-.13	.71
	20+	18	.036	.168	.975	-.36	.43
		19	-.291	.179	.236	-.71	.13
A wide choice of shops, bars, restaurants and canteen on campus is important	18	19	-.140	.095	.303	-.36	.08
		20+	-.371*	.143	.027	-.71	-.03
	19	18	.140	.095	.303	-.08	.36
		20+	-.231	.153	.287	-.59	.13
	20+	18	.371*	.143	.027	.03	.71
		19	.231	.153	.287	-.13	.59
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	18	19	-.286*	.105	.019	-.53	-.04
		20+	-.180	.159	.494	-.55	.19
	19	18	.286*	.105	.019	.04	.53
		20+	.106	.169	.805	-.29	.51
	20+	18	.180	.159	.494	-.19	.55
		19	-.106	.169	.805	-.51	.29
It is difficult to balance leisure time and studies	18	19	.355*	.132	.020	.05	.66
		20+	.109	.198	.845	-.36	.58
	19	18	-.355*	.132	.020	-.66	-.05
		20+	-.246	.211	.477	-.74	.25
	20+	18	-.109	.198	.845	-.58	.36
		19	.246	.211	.477	-.25	.74

*. The mean difference is significant at the 0.05 level.

Robust Tests of Equality of Means

Campus safety is important

	Statistic[a]	df1	df2	Sig.
Welch	3.572	2	75.760	.033

a. Asymptotically F distributed.

Post Hoc Tests

Multiple Comparisons

Dependent Variable: Campus safety is important

Games-Howell

(I) Age	(J) Age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
18	19	.167*	.063	.023	.02	.32
	20+	.113	.097	.477	-.12	.35
19	18	-.167*	.063	.023	-.32	-.02
	20+	-.054	.099	.849	-.29	.19
20+	18	-.113	.097	.477	-.35	.12
	19	.054	.099	.849	-.19	.29

*. The mean difference is significant at the 0.05 level.

Kruskal-Wallis

Ranks			
	Age	N	Mean Rank
I would participate in extra-curricular courses offered by the university to improve my English/Maths/academic skills	18	158	146.54
	19	82	118.87
	20+	28	112.36
Information about the night life on and off campus is important	18	158	125.32
	19	82	154.07
	20+	28	128.98
A wide choice of shops, bars, restaurants and canteen on campus is important	18	158	126.77
	19	82	140.55
	20+	28	160.41
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	18	158	125.58
	19	82	148.96
	20+	28	142.50
It is difficult to balance leisure time and studies	18	158	142.97
	19	82	117.57
	20+	28	136.29

	Chi-Square	df	Asymp. Sig.
I would participate in extra-curricular courses offered by the university to improve my English/Maths/academic skills	10.838	2	.004
Information about the night life on and off campus is important	8.609	2	.014
A wide choice of shops, bars, restaurants and canteen on campus is important	6.163	2	.046
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	6.061	2	.048
It is difficult to balance leisure time and studies	6.437	2	.040

Appendix C.14.2: Status

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Work experience is crucial for finding a job as a graduate	International	5	1.20	.447	.200	.64	1.76	1	2
	UK student	234	1.43	.633	.041	1.35	1.51	1	3
	EU student	29	1.76	.689	.128	1.50	2.02	1	3
	Total	268	1.46	.644	.039	1.39	1.54	1	3
It is worth going to university	International	5	1.80	.837	.374	.76	2.84	1	3
	UK student	234	1.46	.649	.042	1.37	1.54	1	3
	EU student	29	1.93	.884	.164	1.59	2.27	1	3
	Total	268	1.51	.695	.042	1.43	1.60	1	3

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Work experience is crucial for finding a job as a graduate	Between Groups	3.111	2	1.555	3.833	.023
	Within Groups	107.516	265	.406		
	Total	110.627	267			
It is worth going to university	Between Groups	6.206	2	3.103	6.699	.001
	Within Groups	122.735	265	.463		
	Total	128.940	267			

Robust Tests of Equality of Means

		Statistica	df1	df2	Sig.
It is worth going to university	Welch	3.979	2	9.678	.055

Post Hoc Tests

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Status	(J) Status	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Work experience is crucial for finding a job as a graduate	International	UK student	-.232	.288	.701	-.91	.45
		EU student	-.559	.308	.168	-1.29	.17
	UK student	International t	.232	.288	.701	-.45	.91
		EU student	-.327*	.125	.026	-.62	-.03
	EU student	International	.559	.308	.168	-.17	1.29
		UK student	.327*	.125	.026	.03	.62
Games-Howell							
It is worth going to university	international student	Home student (UK)	.343	.377	.663	-.98	1.67
		EU student	-.131	.409	.945	-1.41	1.14
	Home student (UK)	international student	-.343	.377	.663	-1.67	.98
		EU student	-.474*	.169	.023	-.89	-.06
	EU student	international student	.131	.409	.945	-1.14	1.41
		Home student (UK)	.474*	.169	.023	.06	.89

*. The mean difference is significant at the 0.05 level.

Kruskal-Wallis Test

	Chi-Square	df	Asymp. Sig.
Work experience is crucial for finding a job as a graduate	8.303	2	.016
It is worth going to university	9.629	2	.008

Appendix C.14.3: Funding

(SFwL= self-funded with loan; S/S= scholarship/sponsor; SF= self-funded; L/S= loan and scholarship)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
Individual support from my lecturers is important	SFwL	200	1.55	.529	.037	1.47	1.62	1	3
	S/S	31	1.29	.461	.083	1.12	1.46	1	2
	SF	23	1.65	.487	.102	1.44	1.86	1	2
	L/S	14	1.21	.426	.114	.97	1.46	1	2
Good communication with my lecturers is crucial	SFwL	200	1.36	.500	.035	1.29	1.42	1	3
	S/S	31	1.19	.402	.072	1.05	1.34	1	2
	SF	23	1.70	.635	.132	1.42	1.97	1	3
	L/S	14	1.14	.363	.097	.93	1.35	1	2
Having a general help desk to resolve my issues or direct me to the right person would be helpful	SFwL	200	1.75	.642	.045	1.66	1.83	1	3
	S/S	31	1.58	.620	.111	1.35	1.81	1	3
	SF	23	2.00	.522	.109	1.77	2.23	1	3
	L/S	14	1.36	.497	.133	1.07	1.64	1	2
I do not expect the university to support me financially	SFwL	200	2.75	.878	.062	2.63	2.87	1	5
	S/S	31	2.81	.946	.170	2.46	3.15	1	5
	SF	23	2.26	.915	.191	1.87	2.66	1	4
	L/S	14	3.21	.893	.239	2.70	3.73	1	4
It is important to have psychologist or counselling services available on campus	SFwL	200	2.09	.755	.053	1.98	2.19	1	4
	S/S	31	2.13	.806	.145	1.83	2.42	1	3
	SF	23	2.39	.656	.137	2.11	2.68	1	3
	L/S	14	1.57	.756	.202	1.13	2.01	1	3
Work experience is crucial for finding a job as a graduate	SFwL	200	1.48	.649	.046	1.38	1.57	1	3
	S/S	31	1.39	.615	.110	1.16	1.61	1	3
	SF	23	1.65	.714	.149	1.34	1.96	1	3
	L/S	14	1.14	.363	.097	.93	1.35	1	2
Employability skills should be taught at university	SFwL	200	1.65	.640	.045	1.56	1.74	1	3
	S/S	31	1.55	.568	.102	1.34	1.76	1	3
	SF	23	1.70	.822	.171	1.34	2.05	1	3
	L/S	14	1.21	.426	.114	.97	1.46	1	2
It is worth going to university	SFwL	200	1.57	.726	.051	1.47	1.67	1	3
	S/S	31	1.23	.497	.089	1.04	1.41	1	3
	SF	23	1.52	.665	.139	1.23	1.81	1	3
	L/S	14	1.36	.497	.133	1.07	1.64	1	2
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)	SFwL	200	1.63	.705	.050	1.53	1.72	1	3
	S/S	31	1.61	.844	.152	1.30	1.92	1	3
	SF	23	1.78	.600	.125	1.52	2.04	1	3
	L/S	14	1.21	.426	.114	.97	1.46	1	2
A wide choice of shops, bars, restaurants and canteen on campus is important	SFwL	200	1.71	.684	.048	1.61	1.81	1	3
	S/S	31	1.94	.854	.153	1.62	2.25	1	3
	SF	23	2.00	.674	.141	1.71	2.29	1	3
	L/S	14	1.43	.514	.137	1.13	1.73	1	2
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	SFwL	200	2.72	1.261	.089	2.54	2.90	1	5
	S/S	31	1.68	1.045	.188	1.29	2.06	1	4
	SF	23	2.48	1.163	.242	1.98	2.98	1	5
	L/S	14	1.86	1.231	.329	1.15	2.57	1	5
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	SFwL	200	1.83	.803	.057	1.72	1.94	1	4
	S/S	31	1.55	.768	.138	1.27	1.83	1	3
	SF	23	2.00	.603	.126	1.74	2.26	1	3
	L/S	14	1.29	.469	.125	1.02	1.56	1	2
Campus safety is important	SFwL	200	1.35	.487	.034	1.28	1.41	1	3
	S/S	31	1.39	.615	.110	1.16	1.61	1	3
	SF	23	1.35	.487	.102	1.14	1.56	1	2
	L/S	14	1.07	.267	.071	.92	1.23	1	2

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
I do not expect the university to support me financially	Between Groups	8.586	3	2.862	3.613	.014
	Within Groups	209.131	264	.792		
	Total	217.716	267			
It is important to have psychologist or counselling services available on campus	Between Groups	5.905	3	1.968	3.466	.017
	Within Groups	149.946	264	.568		
	Total	155.851	267			
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	Between Groups	36.150	3	12.050	7.982	.000
	Within Groups	398.548	264	1.510		
	Total	434.698	267			

Robust Tests of Equality of Means					
		Statistic	df1	df2	Sig.
Individual support from my lecturers is important	Welch	5.276	3	38.965	.004
Good communication with my lecturers is crucial	Welch	4.964	3	39.020	.005
Having a general help desk to resolve my issues or direct me to the right person would be helpful	Welch	5.130	3	39.366	.004
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)	Welch	4.448	3	40.588	.009
Work experience is crucial for finding a job as a graduate	Welch	3.900	3	40.974	.015
Employability skills should be taught at university	Welch	4.257	3	39.333	.011
It is worth going to university	Welch	3.906	3	40.562	.015
A wide choice of shops, bars, restaurants and canteen on campus is important	Welch	3.373	3	38.455	.028
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	Welch	7.044	3	41.690	.001
Campus safety is important	Welch	4.123	3	40.935	.012

Post Hoc Tests

Multiple Comparisons								
Dependent Variable		(I) Funding	(J) Funding	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Individual support from my lecturers is important	Games-Howell	SFwL	S/S	.255*	.091	.037	.01	.50
			SF	-.107	.108	.756	-.40	.19
			L/S	.331	.120	.061	-.01	.67
		S/S	SFwL	-.255*	.091	.037	-.50	-.01
			SF	-.362*	.131	.040	-.71	-.01
			L/S	.076	.141	.948	-.31	.46
		SF	SFwL	.107	.108	.756	-.19	.40
			S/S	.362*	.131	.040	.01	.71
			L/S	.438*	.153	.035	.02	.85
		L/S	SFwL	-.331	.120	.061	-.67	.01
			S/S	-.076	.141	.948	-.46	.31
			SF	-.438*	.153	.035	-.85	-.02
Good communication with my lecturers is crucial	Games-Howell	SFwL	S/S	.161	.080	.199	-.05	.38
			SF	-.341	.137	.087	-.72	.04
			L/S	.212	.103	.209	-.08	.51
		S/S	SFwL	-.161	.080	.199	-.38	.05
			SF	-.502*	.151	.011	-.91	-.10
			L/S	.051	.121	.975	-.28	.38
		SF	SFwL	.341	.137	.087	-.04	.72
			S/S	.502*	.151	.011	.10	.91
			L/S	.553*	.164	.010	.11	1.00
		L/S	SFwL	-.212	.103	.209	-.51	.08
			S/S	-.051	.121	.975	-.38	.28
			SF	-.553*	.164	.010	-1.00	-.11
Having a general help desk to resolve my issues or direct me to the right person would be helpful	Games-Howell	SFwL	S/S	.164	.120	.527	-.16	.49
			SF	-.255	.118	.157	-.58	.07
			L/S	.388	.140	.060	-.01	.79
		S/S	SFwL	-.164	.120	.527	-.49	.16
			SF	-.419*	.156	.046	-.83	-.01
			L/S	.224	.173	.577	-.25	.69
		SF	SFwL	.255	.118	.157	-.07	.58
			S/S	.419*	.156	.046	.01	.83
			L/S	.643*	.172	.004	.17	1.11

		L/S	SFwL	-.388	.140	.060	-.79	.01
			S/S	-.224	.173	.577	-.69	.25
			SF	-.643*	.172	.004	-1.11	-.17
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)	Games-Howell	SFwL	S/S	.012	.160	1.000	-.42	.44
			SF	-.158	.135	.650	-.52	.21
			L/S	.411*	.124	.018	.06	.76
		S/S	SFwL	-.012	.160	1.000	-.44	.42
			SF	-.170	.196	.823	-.69	.35
			L/S	.399	.190	.169	-.11	.91
		SF	SFwL	.158	.135	.650	-.21	.52
			S/S	.170	.196	.823	-.35	.69
			L/S	.568*	.169	.010	.11	1.02
		L/S	SFwL	-.411*	.124	.018	-.76	-.06
			S/S	-.399	.190	.169	-.91	.11
			SF	-.568*	.169	.010	-1.02	-.11
I do not expect the university to support me financially	Tukey HSD	SFwL	S/S	-.056	.172	.988	-.50	.39
			SF	.489	.196	.063	-.02	1.00
			L/S	-.464	.246	.236	-1.10	.17
		S/S	SFwL	.056	.172	.988	-.39	.50
			SF	.546	.245	.119	-.09	1.18
			L/S	-.408	.287	.486	-1.15	.33
		SF	SFwL	-.489	.196	.063	-1.00	.02
			S/S	-.546	.245	.119	-1.18	.09
			L/S	-.953*	.302	.009	-1.73	-.17
		L/S	SFwL	.464	.246	.236	-.17	1.10
			S/S	.408	.287	.486	-.33	1.15
			SF	.953*	.302	.009	.17	1.73
It is important to have psychologist or counselling services available on campus	Tukey HSD	SFwL	S/S	-.044	.145	.990	-.42	.33
			SF	-.306	.166	.254	-.74	.12
			L/S	.514	.208	.068	-.03	1.05
		S/S	SFwL	.044	.145	.990	-.33	.42
			SF	-.262	.207	.586	-.80	.27
			L/S	.558	.243	.101	-.07	1.19
		SF	SFwL	.306	.166	.254	-.12	.74
			S/S	.262	.207	.586	-.27	.80
			L/S	.820*	.255	.008	.16	1.48
		L/S	SFwL	-.514	.208	.068	-1.05	.03
			S/S	-.558	.243	.101	-1.19	.07
			SF	-.820*	.255	.008	-1.48	-.16
Work experience is crucial for finding a job as a graduate	Games-Howell	SFwL	S/S	.088	.120	.883	-.23	.41
			SF	-.177	.156	.670	-.60	.25
			L/S	.332*	.107	.028	.03	.63
		S/S	SFwL	-.088	.120	.883	-.41	.23
			SF	-.265	.185	.488	-.76	.23
			L/S	.244	.147	.358	-.15	.64
		SF	SFwL	.177	.156	.670	-.25	.60
			S/S	.265	.185	.488	-.23	.76
			L/S	.509*	.178	.034	.03	.99
		L/S	SFwL	-.332*	.107	.028	-.63	-.03
			S/S	-.244	.147	.358	-.64	.15
			SF	-.509*	.178	.034	-.99	-.03
Employability skills should be taught at university	Games-Howell	SFwL	S/S	.102	.112	.799	-.20	.40
			SF	-.046	.177	.994	-.53	.44
			L/S	.436*	.122	.011	.09	.78
		S/S	SFwL	-.102	.112	.799	-.40	.20
			SF	-.147	.199	.881	-.68	.39
			L/S	.334	.153	.148	-.08	.75
		SF	SFwL	.046	.177	.994	-.44	.53
			S/S	.147	.199	.881	-.39	.68
			L/S	.481	.206	.109	-.07	1.04
		L/S	SFwL	-.436*	.122	.011	-.78	-.09
			S/S	-.334	.153	.148	-.75	.08
			SF	-.481	.206	.109	-1.04	.07
It is worth going to university	Games-Howell	SFwL	S/S	.344*	.103	.008	.07	.62
			SF	.048	.148	.988	-.36	.45
			L/S	.213	.142	.462	-.19	.62
		S/S	SFwL	-.344*	.103	.008	-.62	-.07
			SF	-.296	.165	.292	-.74	.15
			L/S	-.131	.160	.844	-.57	.31

		SF	SFwL	-.048	.148	.988	-.45	.36
			S/S	.296	.165	.292	-.15	.74
			L/S	.165	.192	.827	-.35	.68
		L/S	SFwL	-.213	.142	.462	-.62	.19
			S/S	.131	.160	.844	-.31	.57
			SF	-.165	.192	.827	-.68	.35
A wide choice of shops, bars, restaurants and canteen on campus is important	Games-Howell	SFwL	S/S	-.225	.161	.506	-.66	.21
			SF	-.290	.149	.231	-.70	.12
			L/S	.281	.146	.253	-.13	.70
		S/S	SFwL	.225	.161	.506	-.21	.66
			SF	-.065	.208	.990	-.62	.49
			L/S	.507	.206	.082	-.05	1.06
		SF	SFwL	.290	.149	.231	-.12	.70
			S/S	.065	.208	.990	-.49	.62
			L/S	.571*	.196	.031	.04	1.10
		L/S	SFwL	-.281	.146	.253	-.70	.13
			S/S	-.507	.206	.082	-1.06	.05
			SF	-.571*	.196	.031	-1.10	-.04
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	Tukey HSD	SFwL	S/S	1.043*	.237	.000	.43	1.66
			SF	.242	.271	.808	-.46	.94
			L/S	.863	.340	.056	-.02	1.74
		S/S	SFwL	-1.04*	.237	.000	-1.66	-.43
			SF	-.801	.338	.086	-1.68	.07
			L/S	-.180	.396	.969	-1.20	.84
		SF	SFwL	-.242	.271	.808	-.94	.46
			S/S	.801	.338	.086	-.07	1.68
			L/S	.621	.416	.444	-.46	1.70
		L/S	SFwL	-.863	.340	.056	-1.74	.02
			S/S	.180	.396	.969	-.84	1.20
			SF	-.621	.416	.444	-1.70	.46
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	Games-Howell	SFwL	S/S	.282	.149	.249	-.12	.68
			SF	-.170	.138	.611	-.54	.20
			L/S	.544*	.138	.004	.16	.93
		S/S	SFwL	-.282	.149	.249	-.68	.12
			SF	-.452	.187	.086	-.95	.04
			L/S	.263	.186	.501	-.24	.76
		SF	SFwL	.170	.138	.611	-.20	.54
			S/S	.452	.187	.086	-.04	.95
			L/S	.714*	.178	.002	.23	1.19
		L/S	SFwL	-.544*	.138	.004	-.93	-.16
			S/S	-.263	.186	.501	-.76	.24
			SF	-.714*	.178	.002	-1.19	-.23
Campus safety is important	Games-Howell	SFwL	S/S	-.042	.116	.983	-.35	.27
			SF	-.003	.107	1.000	-.30	.29
			L/S	.274*	.079	.013	.05	.50
		S/S	SFwL	.042	.116	.983	-.27	.35
			SF	.039	.150	.994	-.36	.44
			L/S	.316	.132	.092	-.04	.67
		SF	SFwL	.003	.107	1.000	-.29	.30
			S/S	-.039	.150	.994	-.44	.36
			L/S	.276	.124	.136	-.06	.61
		L/S	SFwL	-.274*	.079	.013	-.50	-.05
			S/S	-.316	.132	.092	-.67	.04
			SF	-.276	.124	.136	-.61	.06

*. The mean difference is significant at the 0.05 level.

Kruskal-Wallis

	Funding	N	Mean Rank
Individual support from my lecturers is important	SFwL	200	139.22
	S/S	31	106.47
	SF	23	154.41
	L/S	14	96.39
Good communication with my lecturers is crucial	SFwL	200	135.00
	S/S	31	114.55
	SF	23	173.30
	L/S	14	107.86
Having a general help desk to resolve my issues or direct me to the right person would be helpful	SFwL	200	136.26
	S/S	31	118.11
	SF	23	166.24
	L/S	14	93.54
I do not expect the university to support me financially	SFwL	200	134.53
	S/S	31	141.76
	SF	23	97.65
	L/S	14	178.61
It is important to have psychologist or counselling services available on campus	SFwL	200	133.82
	S/S	31	139.05
	SF	23	163.70
	L/S	14	86.14
A wide choice of shops, bars, restaurants and canteen on campus is important	SFwL	200	131.17
	S/S	31	150.21
	SF	23	161.11
	L/S	14	103.64
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	SFwL	200	145.53
	S/S	31	84.10
	SF	23	131.61
	L/S	14	93.29
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	SFwL	200	138.48
	S/S	31	111.52
	SF	23	158.78
	L/S	14	88.64

	Chi-Square	df	Asymp. Sig.
Individual support from my lecturers is important	12.795	3	.005
Good communication with my lecturers is crucial	13.990	3	.003
Having a general help desk to resolve my issues or direct me to the right person would be helpful	11.549	3	.009
I do not expect the university to support me financially	11.323	3	.010
It is important to have psychologist or counselling services available on campus	10.123	3	.018
A wide choice of shops, bars, restaurants and canteen on campus is important	7.790	3	.051
I need special food to be served in the canteen (e.g. for vegans, vegetarians, halal food)	22.745	3	.000
I am interested in engaging in extra-curricular activities (e.g. sports, arts, clubs and society)	12.032	3	.007

Appendix C.14.4: Selection

(UFS=unconditional firm status; IC=insurance choice; C= clearing)

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Min	Max
						Lower Bound	Upper Bound		
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)	UFS	206	1.56	.651	.045	1.47	1.65	1	3
	IC	32	1.69	.896	.158	1.36	2.01	1	3
	C	30	1.93	.785	.143	1.64	2.23	1	3
	Total	268	1.62	.707	.043	1.53	1.70	1	3
It is important to have a contact person to talk to about personal problems (e.g. bullying, addiction, stress)	UFS	206	1.95	.657	.046	1.86	2.04	1	3
	IC	32	1.97	.695	.123	1.72	2.22	1	3
	C	30	1.63	.556	.102	1.43	1.84	1	3
	Total	268	1.91	.656	.040	1.84	1.99	1	3
Work experience is crucial for finding a job as a graduate	UFS	206	1.40	.583	.041	1.32	1.48	1	3
	IC	32	1.53	.761	.135	1.26	1.81	1	3
	C	30	1.80	.805	.147	1.50	2.10	1	3
	Total	268	1.46	.644	.039	1.39	1.54	1	3
It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)	UFS	206	1.72	.682	.047	1.63	1.82	1	3
	IC	32	2.06	.840	.148	1.76	2.37	1	3
	C	30	1.60	.621	.113	1.37	1.83	1	3
	Total	268	1.75	.704	.043	1.67	1.83	1	3
As a student, it is necessary to learn how to save money in everyday life	UFS	206	1.59	.575	.040	1.51	1.67	1	3
	IC	32	1.50	.508	.090	1.32	1.68	1	2
	C	30	1.90	.712	.130	1.63	2.17	1	3
	Total	268	1.62	.591	.036	1.54	1.69	1	3
A wide choice of shops, bars, restaurants and canteen on campus is important	UFS	206	1.69	.697	.049	1.60	1.79	1	3
	IC	32	2.06	.759	.134	1.79	2.34	1	3
	C	30	1.77	.626	.114	1.53	2.00	1	3
	Total	268	1.75	.705	.043	1.66	1.83	1	3
Extra-curricular activities can have a negative effect on my studies	UFS	206	3.31	1.090	.076	3.16	3.46	1	5
	IC	32	3.78	1.070	.189	3.40	4.17	1	5
	C	30	2.80	1.270	.232	2.33	3.27	1	5
	Total	268	3.31	1.130	.069	3.17	3.44	1	5

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
It is important to have a contact person to talk to about personal problems (e.g. bullying, addiction, stress)	Between Groups	2.678	2	1.339	3.158	.044
	Within Groups	112.348	265	.424		
	Total	115.026	267			
It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)	Between Groups	3.947	2	1.973	4.076	.018
	Within Groups	128.303	265	.484		
	Total	132.250	267			
As a student, it is necessary to learn how to save money in everyday life	Between Groups	2.967	2	1.483	4.346	.014
	Within Groups	90.448	265	.341		
	Total	93.414	267			
A wide choice of shops, bars, restaurants and canteen on campus is important	Between Groups	3.772	2	1.886	3.875	.022
	Within Groups	128.975	265	.487		
	Total	132.746	267			
Extra-curricular activities can have a negative effect on my studies	Between Groups	14.909	2	7.454	6.059	.003
	Within Groups	326.002	265	1.230		
	Total	340.910	267			

Robust Tests of Equality of Means

		Statistic	df1	df2	Sig.
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)	Welch	3.235	2	46.828	.048
Work experience is crucial for finding a job as a graduate	Welch	3.594	2	46.253	.035

Post Hoc Tests

Multiple Comparisons

Dependent Variable		(I) Selection	(J) Selection	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)	Games-Howell	UFS	IC	-.129	.165	.715	-.53	.27
			C	-.375*	.150	.045	-.74	-.01
		IC	UFS	.129	.165	.715	-.27	.53
			C	-.246	.214	.487	-.76	.27
		C	UFS	.375*	.150	.045	.01	.74
			IC	.246	.214	.487	-.27	.76
It is important to have a contact person to talk to about personal problems (e.g. bullying, addiction, stress)	Tukey HSD	UFS	IC	-.022	.124	.982	-.31	.27
			C	.313*	.127	.038	.01	.61
		IC	UFS	.022	.124	.982	-.27	.31
			C	.335	.165	.108	-.05	.73
		C	UFS	-.313*	.127	.038	-.61	-.01
			IC	-.335	.165	.108	-.73	.05
Work experience is crucial for finding a job as a graduate	Games-Howell	UFS	IC	-.128	.141	.636	-.47	.21
			C	-.397*	.153	.035	-.77	-.02
		IC	UFS	.128	.141	.636	-.21	.47
			C	-.269	.199	.374	-.75	.21
		C	UFS	.397*	.153	.035	.02	.77
			IC	.269	.199	.374	-.21	.75
It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)	Tukey HSD	UFS	IC	-.339*	.132	.029	-.65	-.03
			C	.123	.136	.636	-.20	.44
		IC	UFS	.339*	.132	.029	.03	.65
			C	.462*	.177	.025	.05	.88
		C	UFS	-.123	.136	.636	-.44	.20
			IC	-.462*	.177	.025	-.88	-.05
As a student, it is necessary to learn how to save money in everyday life	Tukey HSD	UFS	IC	.092	.111	.684	-.17	.35
			C	-.308*	.114	.020	-.58	-.04
		IC	UFS	-.092	.111	.684	-.35	.17
			C	-.400*	.148	.020	-.75	-.05
		C	UFS	.308*	.114	.020	.04	.58
			IC	.400*	.148	.020	.05	.75
A wide choice of shops, bars, restaurants and canteen on campus is important	Tukey HSD	UFS	IC	-.368*	.133	.016	-.68	-.06
			C	-.072	.136	.856	-.39	.25
		IC	UFS	.368*	.133	.016	.06	.68
			C	.296	.177	.219	-.12	.71
		C	UFS	.072	.136	.856	-.25	.39
			IC	-.296	.177	.219	-.71	.12
Extra-curricular activities can have a negative effect on my studies	Tukey HSD	UFS	IC	-.475	.211	.064	-.97	.02
			C	.506	.217	.053	-.01	1.02
		IC	UFS	.475	.211	.064	-.02	.97
			C	.981*	.282	.002	.32	1.65
		C	UFS	-.506	.217	.053	-1.02	.01
			IC	-.981*	.282	.002	-1.65	-.32

*. The mean difference is significant at the 0.05 level.

Kruskal-Wallis

	Selection	N	Mean Rank
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)	UFS	206	130.04
	IC	32	135.11
	C	30	164.50
It is important to have a contact person to talk to about personal problems (e.g. bullying, addiction, stress)	UFS	206	137.92
	IC	32	140.03
	C	30	105.10
Work experience is crucial for finding a job as a graduate	UFS	206	129.56
	IC	32	137.59
	C	30	165.10
It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)	UFS	206	132.20
	IC	32	162.53
	C	30	120.37
Graduates have a better chance in the job market	UFS	206	129.30
	IC	32	138.70
	C	30	165.70
As a student, it is necessary to learn how to save money in everyday life	UFS	206	132.17
	IC	32	122.75
	C	30	163.05
A wide choice of shops, bars, restaurants and canteen on campus is important	UFS	206	129.17
	IC	32	164.97
	C	30	138.62
Extra-curricular activities can have a negative effect on my studies	UFS	206	134.05
	IC	32	168.00
	C	30	101.87

	Chi-Square	df	Asymp. Sig.
I want to be informed about financial issues (e.g. university and accommodation fees, payment deadlines, payment schemes)	6.342	2	.042
It is important to have a contact person to talk to about personal problems (e.g. bullying, addiction, stress)	6.117	2	.047
Work experience is crucial for finding a job as a graduate	7.566	2	.023
It is important to interact with like-minded people (e.g. in terms of attitude, interests and work ethics)	6.359	2	.042
Graduates have a better chance in the job market	6.660	2	.036
As a student, it is necessary to learn how to save money in everyday life	6.346	2	.042
A wide choice of shops, bars, restaurants and canteen on campus is important	7.116	2	.028
Extra-curricular activities can have a negative effect on my studies	12.114	2	.002

Appendix D.1: Pre-programme questionnaire

Questionnaire: 'Ready to Work' Programme – Motivation and Expectations

This survey is conducted as part of a PhD programme in the Department of Information Systems and Computing, Brunel University, with the agreement of the 'Ready-to-Work' Programme Board, and aims to measure your motivation to participate and your expectations with the programme.

☐ I herewith agree to participate in this survey and confirm that I am over 18 years old. Further, I understood that participation is voluntary and anonymous and all collected data will be kept confidential and only used for academic purposes. I understood that I have the right to withdraw from this study at any point without penalty.

1 Demographics

Gender	☐ Male	☐ Female	
Age	_____		
Study Course	_____		
Status	☐ UK Student	☐ EU Student	☐ International Student
Funding	☐ Student loan	☐ Self-funded	☐ Scholarship/ Sponsor
Living	☐ On campus	☐ Off campus	
Prior experience	☐ Course-related part-time work	☐ Course-unrelated part-time work	
	☐ Placement/internship	☐ Voluntary work experience	
	☐ Prior full-time employment	☐ No prior work experience	

2 Do you feel you know which skills are important to employers after graduation?
(Please tick only one answer option)

☐ Yes, I am confident that I know which skills are important
☐ I have some idea about which skills are important
☐ I am not confident that I know which skills are important
☐ No, I do not know which skills are important

3 What is your current perception of your future employment?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I know what career or job I would like to work towards when I complete my degree.	☐	☐	☐	☐	☐
2. I think that my university course will help me to equip me sufficiently for my future career or job.	☐	☐	☐	☐	☐
3. I feel that extra-curricular activities undertaken during my time at university will help to equip me for my career or job.	☐	☐	☐	☐	☐
4. I know which skills and experiences are valued by employers in my desired field.	☐	☐	☐	☐	☐
5. I feel confident about making applications to future employers.	☐	☐	☐	☐	☐
6. I feel confident that I will be able to find appropriate work when I leave university.	☐	☐	☐	☐	☐

4 What is your motivation for participating in the 'Ready to Work' Programme?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. To improve my job opportunities	☐	☐	☐	☐	☐
2. It sounded interesting	☐	☐	☐	☐	☐
3. My family/friends told me to participate	☐	☐	☐	☐	☐
4. To help develop the skills relevant to my career	☐	☐	☐	☐	☐
5. Personal interest – I love learning new things	☐	☐	☐	☐	☐
6. To gain theoretical and practical experience	☐	☐	☐	☐	☐
7. To receive a certificate for my CV/portfolio	☐	☐	☐	☐	☐
8. Other (please specify): _____					

5 What do you hope to gain from the Ready-to-Work Program?

_____

_____

_____

_____

If you have any questions and/or are interested in the results of the research, please contact me under Helga.Lecca@brunel.ac.uk.

Thank you for your support in completing the questionnaire.

Appendix D.2: Post-programme questionnaire

Questionnaire: 'Ready to Work' Programme - Evaluation

This survey is conducted as part of a PhD programme in the Department of Information Systems and Computing, Brunel University with the agreement of the 'Ready-to-Work' Programme Board, and aims to measure your overall satisfaction with the programme.

☐ I herewith agree to participate in this survey and confirm that I am over 18 years old. Further, I understood that participation is voluntary and anonymous and all collected data will be kept confidential and only used for academic purposes. I understood that I have the right to withdraw from this study at any point without penalty.

1 Demographics

Gender	☐ Male	☐ Female	
Age	_____		
Study Course	_____		
Status	☐ UK Student	☐ EU Student	☐ International Student
Funding	☐ Student loan	☐ Self-funded	☐ Scholarship/ Sponsor
Living	☐ On campus	☐ Off campus	
Prior experience	☐ Course-related part-time work	☐ Course-unrelated part-time work	
	☐ Placement/internship	☐ Voluntary work experience	
	☐ Prior full-time employment	☐ No prior work experience	

2 Do you feel you know which skills are important to employers after graduation?
(Please tick only one answer option)

☐ Yes, I am confident that I know which skills are important
☐ I have some idea about which skills are important
☐ I am not confident that I know which skills are important
☐ No, I do not know which skills are important

3 What is your current perception of your future employment?

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
1. I know what career or job I would like to work towards when I complete my degree.	☐	☐	☐	☐	☐
2. I think that my university course will help me to equip me sufficiently for my future career or job.	☐	☐	☐	☐	☐
3. I feel that extra-curricular activities undertaken during my time at university will help to equip me for my career or job.	☐	☐	☐	☐	☐
4. I know which skills and experiences are valued by employers in my desired field.	☐	☐	☐	☐	☐
5. I feel confident about making applications to future employers.	☐	☐	☐	☐	☐
6. I feel confident that I will be able to find appropriate work when I leave university.	☐	☐	☐	☐	☐

4 **In how far did the 'Ready to Work' Programme meet your expectations?**
(Please tick only one answer option)

☐ The programme greatly exceeded my expectations
☐ The programme exceeded my expectations
☐ The programme met my expectations
☐ The programme did not meet my expectations
☐ The programme was significantly below my expectations

5 **How confident are you about your abilities regarding the skills you learned during the programme?**

	Very confident	Confident	Neutral	Not confident	Not confident at all
1. Communication skills	☐	☐	☐	☐	☐
2. Commercial awareness	☐	☐	☐	☐	☐
3. Financial and other data analysis	☐	☐	☐	☐	☐
4. Organisation and planning	☐	☐	☐	☐	☐
5. Personal resilience					
6. Problem solving	☐	☐	☐	☐	☐
7. Teamwork	☐	☐	☐	☐	☐
8. Time management	☐	☐	☐	☐	☐

6 **How satisfied were you with your programme facilitator?**

	Very satisfied	Satisfied	Neutral	Dissatisfied	Very dissatisfied
1. Friendliness	☐	☐	☐	☐	☐
2. Helpfulness	☐	☐	☐	☐	☐
3. Approachability	☐	☐	☐	☐	☐
4. Support	☐	☐	☐	☐	☐
5. Knowledge	☐	☐	☐	☐	☐
6. Organisation and planning	☐	☐	☐	☐	☐
7. Delivery of material	☐	☐	☐	☐	☐

7 **Comments and Suggestions**

What did you like most about the program and why?

_____
_____
_____

What did you like the least about the program and why?

_____
_____
_____

Do you have any suggestions for the improvement of this program?

_____
_____
_____

What else could the university do to help you develop your employability skills?

_____
_____
_____

If you have any questions and/or are interested in the results of the research, please contact me under Helga.Lecca@brunel.ac.uk.
Thank you for your support in completing the questionnaire.

Appendix D.3: Pearson's Chi-Square: significant results (pre-programme)

Do you feel you know which skills are important to employers after graduation? * School

(BBS=Business School; SSS=School of Social Sciences); SISCM=School of Information Systems, Computing and Mathematics; Arts=School of Arts; Law= Law School; HSSC=School of Health Science and Social Care; E&D=School of Engineering and Design; S&E=School of Sports and Education)

	Yes, I am confident that I know which skills are important	I have some idea about which skills are important	I am not confident that I know which skills are important	No, I do not know which skills are important	**Total**	**Pearson Chi-square**	**Asymp. Sig. (*p*)**	**Cramer's V**
BBS	6	13	1	1	21	32.978 (df=21)	.046	.318
SSS	5	28	2	0	35			
SISCM	9	13	1	0	23			
Arts	0	11	2	0	13			
Law	0	5	0	0	5			
HSSC	2	7	2	0	11			
E&D	1	15	4	0	20			
S&E	0	3	0	1	4			

What is your perception of your future employment? * Funding

	Strongly agree	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**	**Total**	**Pearson Chi-square**	**Asymp. Sig. (*p*)**	**Cramer's V**
I feel confident about making applications to future employers									
Student loan	9	32	39	11	1	92	24.563 (df=12)	.017	.273
Self-funded	3	11	3	2	0	19			
Scholar-ship	3	2	0	0	0	5			
Loan + Sponsor	15	51	43	14	2	125			

What is your perception of your future employment? * School

	Strongly agree	**Agree**	**Neutral**	**Disagree**	**Strongly disagree**	**Total**	**Pearson Chi-square**	**Asymp. Sig. (*p*)**	**Cramer's V**
My family/friends told me to participate									
BBS	3	2	4	1	11	21	41.595 (df=28)	.047	.268
SSS	0	3	11	11	11	36			
SISCM	2	3	5	7	5	22			
Arts	0	3	2	5	3	13			
Law	0	0	3	2	0	5			
HSSC	0	0	1	3	7	11			
E&D	0	1	8	7	4	20			
S&E	0	1	1	1	1	4			

Appendix D.4: Prior work experience: Mann-Whitney U results

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
I know what career or job I would like to work towards when I complete my degree	1193.500	5753.500	-1.678	.093
I think that my university course will help me to equip me sufficiently for my future career or job	1321.000	5881.000	-.966	.334
I feel that extra-curricular activities undertaken during my time at university will help to equip me for my career or jo	1265.500	5825.500	-1.291	.197
I know which skills and experiences are valued by employers in my desired field	1443.500	1939.500	-.186	.852
I feel confident about making applications to future employers	1338.500	5898.500	-.806	.420
I feel confident that I will be able to find appropriate work when I leave university	1398.500	1894.500	-.449	.654

	Mann-Whitney U	Wilcoxon W	Z	Asymp. Sig. (2-tailed)
To improve my job opportunities	1392.000	1888.000	-.623	.533
It sounded interesting	1460.000	6020.000	-.078	.938
My family/friends told me to participate	1113.000	1609.000	-2.039	.041
To help develop the skills relevant to my career	1309.500	1805.500	-.937	.349
Personal interest - I love learning new things	1435.500	1931.500	-.131	.896
To gain theoretical and practical experience	1259.500	1724.500	-.970	.332
To receive a certificate for my CV/portfolio	1300.500	5578.500	-.517	.605

Appendix D.5: Cross-tabulation between prior work experience and "Do you feel you know which skills are important to employers after graduation?"

Do you feel you know which skills are important to employers after graduation? * any prior experience				
		any prior experience		Total
		yes	no	
Yes, I am confident that I know which skills are important	Count	18	5	23
	% within Do you feel you know which skills are important to employers after graduation?	78.3%	21.7%	100.0%
	% within any prior experience:	19.1%	16.1%	18.4%
	% of Total	14.4%	4.0%	18.4%
I have some idea about which skills are important	Count	69	20	89
	% within Do you feel you know which skills are important to employers after graduation?	77.5%	22.5%	100.0%
	% within any prior experience:	73.4%	64.5%	71.2%
	% of Total	55.2%	16.0%	71.2%
I am not confident that I know which skills are important	Count	6	5	11
	% within Do you feel you know which skills are important to employers after graduation?	54.5%	45.5%	100.0%
	% within any prior experience:	6.4%	16.1%	8.8%
	% of Total	4.8%	4.0%	8.8%
No, I do not know which skills are important	Count	1	1	2
	% within Do you feel you know which skills are important to employers after graduation?	50.0%	50.0%	100.0%
	% within any prior experience:	1.1%	3.2%	1.6%
	% of Total	0.8%	0.8%	1.6%
Total	Count	94	31	125
	% within Do you feel you know which skills are important to employers after graduation?	75.2%	24.8%	100.0%
	% within any prior experience:	100.0%	100.0%	100.0%
	% of Total	75.2%	24.8%	100.0%

Appendix D.6: Cross-tabulation between prior work experience and perceptions of future employment

I know what career or job I would like to work towards when I complete my degree							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	22	45	20	6	2	95
	No	5	11	11	4	-	31
Total		27	56	31	10	2	126

I think that my university course will help me to equip me sufficiently for my future career or job							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	48	40	7	-	-	95
	No	11	20	-	-	-	31
Total		59	60	7	-	-	126

I feel that extra-curricular activities undertaken during my time at university will help to equip me for my career or job							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	53	26	15	1	-	95
	No	10	20	-	1	-	31
Total		63	46	15	2	-	126

I know which skills and experiences are valued by employers in my desired field							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	8	55	29	3	-	95
	No	3	18	9	-	1	31
Total		11	73	38	3	1	126

I feel confident about making applications to future employers							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	13	38	32	11	1	95
	No	2	12	14	2	1	31
Total		15	50	46	13	2	126

I feel confident that I will be able to find appropriate work when I leave university							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	15	43	30	6	1	95
	No	6	14	9	1	1	31
Total		21	57	39	7	2	126

Appendix D.7: Cross-tabulation between prior work experience and motivations for participation

To improve my job opportunities							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	72	20	2	1		95
	No	25	6				31
Total		97	26	2	1		126

It sounded interesting							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	30	49	12	3	1	95
	No	10	15	5	1		31
Total		40	64	17	4	1	126

My family/friends told me to participate							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	3	8	24	28	31	94
	No	3	5	10	6	7	31
Total		6	13	34	34	38	125

To help develop the skills relevant to my career							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	40	45	7	2		94
	No	16	13	2			31
Total		56	58	9	2		125

Personal interest - I love learning new things							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	33	39	21	1		94
	No	12	11	8			31
Total		45	50	29	1		125

To gain theoretical and practical experience							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	43	40	10	1		94
	No	17	10	3			30
Total		60	50	13	1		124

To receive a certificate for my CV/portfolio							
		strongly agree	agree	neutral	disagree	strongly disagree	Total
Any prior experience	Yes	46	31	15			92
	No	12	15	2		1	30
Total		58	46	17		1	122

Appendix D.8: What did you like most about the programme and why?

Teamwork (29)		• It was good working in a team • Group/team work (x16) • When we met with the group and planned the project • Became confident to work within a group with different people • Working together to achieve a final goal • Working with my group and successfully completing the project • Group project • Learning how to work with people • Team work - helps improving skills of individuals • I liked the way of tackling problems as a team • I liked the element of teamwork that the programme helped to develop • Testing myself in a team scenario • Being part of a team and plan something together • Gained confidence to work in a team and learned things from each other
Networking and human factors (50)	**group members, making new friends (35)**	• Meeting new interesting people (x11) • The people that I met, they were very supportive • I thought my group made the programme great • The idea of getting to know others from the course • Making friends (x5) • Making new friends from different courses • I got to meet people outside my course • Working with a team from other degree courses • Working with people from different courses • Working with students from other disciplines • Getting to work with new people • Opportunity to meet and interact with others • My team (x3) • As a fresher it is crucial to meet new people • Becoming close to the other members of the group • Different people from different subjects • The group because they are very friendly and polite people • The variety of people you work with • Meeting people you normally wouldn't from other courses
	Guest speakers (9)	• Guest speakers (x5) • Guest speakers, as the info about employability came from employers themselves • The talks • The first presentation (Rent a Car) and the research were very good • Listening from guest speakers who are greatly established in their fields which helped me to learn a lot of new information from them
	Facilitators (6)	• I thought my facilitator made the programme great • The friendliness and support given • Support given • Our facilitator (x3)
Programme (10)	**Project (3)**	• Exciting project plan • The theme of the project that was given to us. • Real life, relevant situations as the projects
	Tasks (2)	• The group work we were told to conduct • I liked the fact that we had to be very interactive and imaginative.

	Programme (5)	• It was arranged really well • It's design • the opportunity of such a diverse course was extremely pleasing • Meeting up weekly. It was easy to get everyone's ideas and keep up to date • Good for future
Skills development (17)	**Skills (12)**	• Improving my skills and gaining confidence • Enhancing current skills/abilities • Team building, resilience and time-management were some of the things I struggled with and now I'm confident I can cope • Improve skills • Learning new skills and developing attributes • Helped me in my skills using SPSS • Research • Acquiring new skills • The skills I got after the programme • We had to give a presentation - because it gives confidence and prepares for future presentations • Researching for pieces of information • Learning about the variety of skills that employers are interested in
	Personal Development (5)	• Built communication, confidence, innovation • I was introduced to a completely new environment, which I believe will prepare me for my future prospects • I learnt many things about me • It allowed me to become a much more confident person 1) by socialising and 2) presenting ; I found a potential • It reinforced what I thought my strengths and weaknesses are and increased my confidence

Appendix D.9: What did you like least about the programme and why?

Speakers (7)		• Disengaging guest speakers • The speakers didn't appeal to me • Hillingdon council speech • YoSushi did not come • Speaking [Researcher's comment: speakers/ as dissatisfied with 2 speakers] • The talk from the Hillingdon Council • The Hillingdon Council speaker
Programme (48)	**Time and length of programme (20)**	• The late timing (x12) • The duration - I felt it was fairly long • The length • It was only 10 weeks • Length; needs to be longer • The time: if we will have more we could develop our project more • It was on Monday • It started on the first week when we didn't know our way around • Having it on a Monday evening after a long day so willingness to attend and participate well is low
	Projects and themes (11)	• Felt that I would learn more - didn't build much upon the skills I already had • Gave too little to the participants • Project theme/topic (x7) • Not clear enough, quite a big task (huge work load) • There was no guidelines regarding how much work we have to do on the project, we were left to decide how much we wanted to do
	Work load and assessment (12)	• The presentation because I don't like speaking in front of people • Public speaking • Presenting, due to nervousness • Time management with studies (x2) • Organising time outside the sessions to work on the project • The work and meetings after the two hour sessions • There wasn't that much guidance/clear guidance when it came to the report elements of the programme • I least liked writing out our individual report • The fact that it took up a lot of time • The unrealistic amount of work expected to be done by such a small number of people alongside our courses • "Consequences" in some way if students didn't attend
	Organisational issues (5)	• Not enough prior information • Organisation and planning • Better time planning of handing out information • It could have been organised better - they didn't have a contingency plan when people backed out • I want to say it was a tad bit unstructured
People issues (8)		• Some people did not commit till the end • The punctuality of some members • The number of people who left the group/ dropped out (x4) • Students not attending • Unfriendly (though helpful) facilitator • The lack of commitment of group members • Team work and communication • Too many people in one group (abut 6-7 is enough)

Appendix D.10: Student suggestions for the improvement of the programme

Guest speakers (7)	• Exciting guest speakers • More guest speakers (x3) • Better speakers • Guest speaker talks about jobs that are not just business related • More variation with guest speakers
Time and length of programme (15)	• Start in week 2. Give a weekly or bi-weekly feedback • Earlier sessions and not so long • Maybe different day, more than Monday • Make it more concise in terms of duration • Shorter periods of time • Last longer • Longer sessions • Extension, we did not have enough time to research to a deeper level • Take it to 15 weeks • Better times • Different time to have sessions in consideration for off-campus • It should be different time of the day • Timing of sessions for people who live off campus • Different time or maybe split it up into 2 single hour sessions • Maybe have different time for sessions (too late now)
Project theme and brief (10)	• Variety of themes • Add some constraints, e.g. "potential capital available" • If people could choose what project theme they would like to do • Better topic • Find better projects • Make the themes more fun • I think the programme should be clearer in terms of the work we need to include • Guidelines more focused; how much work we should do • Clearer guidelines • More interesting/fun projects – Theme parks
Activities and teaching (12)	• I wish there had been a bit of hard core teaching; more actual learning that we can then apply • More team building activities • More focus on various careers • Divide the two hours in activities, example: planning and then researching/ creating power points • More explanatory sessions • Working more on personal skills, e.g. time for mock interviews • Deliver trainings to the students • More interactive (x2) • Better guidance • Make it more enjoying and incentive • Public speaking module/class
Organisational issues (5)	• Information in better time • More/better communication • Plan in advance the tasks that need to be done well before hand • Support outside meeting hours • I don't feel the course was what it was advertised as. I have learnt a lot, but not on what attracted me to the course initially.
Groups (9)	• Perhaps less groups (11 is too much, maybe groups of 6) • Smaller groups • Maybe individuals put in a group are from the same group [researcher comment: course?] for later group meetings • Do not include more members into group after week 2 • Some members dropped off --> if the organiser selected people who are really interested • Ensure groups are composed of several people - maybe unite small groups if numbers in them rapidly fall • Smaller groups and failing penalties • Have back-up students when people back out of the group • Ensure all groups have 10 members
Facilitator (2)	• More friendly facilitator • Facilitators to come and talk about the projects being worked on by students

Appendix D.11: Other activities to increase student employability

Work experience and link to employers (20)	• Work experience (x6) • Real work observation • Placements • More employment talks • Talks from professionals • Giving students a hand-on experience of working in a company itself to give them an idea of the real world • Visiting a local company for a day • Volunteering • More talks from people like Rent a Car • Maybe becoming more involved in the community by volunteering or take a related job • Work experience - it would make this programme truly worth it to have some work experience at the end of it in order to put into action the newly learnt skills • Career-speed dating-ish: getting employers to sit and talk to a group of relevant students • More presentations along the programme • Work experience in companies I feel would be most useful as it is so hard to even gain voluntary work. Skills that are practised in the workplace in more valuable to employers when applying for a job • Workshops
Interviews and applications (6)	• Interview skills • Interview simulations • CV and cover letter writing • Workshops for interview techniques • Mock interviews to become more confident in the process • Application/CV practice
Skill-specific activities (7)	• More activities in my field (law) • More skills programmes like this • Skill seminars that increase confidence in skills • More work on financial and data analysis • Public speaking because I'm not confident to present • Skills day - teaching skills that relate more to employability • Degree-related activities
Other (8)	• More meeting times/experience/programmes • Networking • Passing my degree • Ability to interact with others with ease • I think more interesting project in different areas and theme could improve my experience and employability • If projects are to be assigned, have more variety so it could have some relevance to the course a student is studying - could split the groups by schools or courses of high demand from a certain subject, e.g. people studying health care could research ways to improve health care or the NHS instead of a restaurant • More creative activities
Deleted from analysis (3)	• Not that I could learn in a class like this • They should base the meeting outside • Flexibility

Appendix E.1: Cognitive constructs

Term/Concept	Definition	Key Authors
Academic (behavioural) confidence	Academic behavioural confidence is conceptualised as being how students differ in the extent to which they have a 'strong belief, firm trust, or sure expectation' of how they will respond to the demands of studying at university in general and specific aspects/skills within their academic experience.	• Sander and Sanders, 2009 • Laird, 2005 • Nicholson *et a*l, 2013
Effectance motivation	The motivation to interact effectively with one's environment and control critical aspects.	• White, 1959
Emotional intelligence (EI)	A type of cognitive ability involving the ability to perceive, use, understand and manage emotion or personality traits related to dealing with emotions. (→ state EI versus trait EI)	• Salovey and Mayer, 1990 • Petrides and Furnham, 2000 • Mayer and Geher, 1996
Emotional self-efficacy (ESE)	Confidence in one's emotional competence as operationalised by the four-branch ability model of EI	• Bandura, 1997a,b • Mayer, Caruso and Salovey, 1999 • Petrides and Furnham, 2000 • Kirk *et al*., 2008
Resilience	The capability of individuals to cope successfully in the face of change, adversity, and risk.	• Bandura, 1986, 1997a • Stajkovic and Luthans, 1998, 2003 • Wagnild and Young, 1993 • Coutu, 2002 • Hunter and Chandler, 1999
Self-concept	A person's collective perceptions of him/herself formed through experiences with the environment, and which are heavily influenced by reinforcements and evaluations by significant others.	• Shavelson and Bolus, 1982 • Marsh 2007; Marsh and Craven 1997 • Shavelson, Hubner and Stanton, 1976 • Sander and Sanders, 2009
(Self-)confidence	Nondescript term that refers to strength of belief but does not necessarily specify what the certainty is about.	• Bandura, 1997a, b • Bénabou and Tirole, 2002
Self-efficacy	Judgments of own capabilities to organize and execute courses of action required to attain designated types of performances.	• Bandura, 1997a • Pajares, 1996
Self-esteem	A person's perception of his or her self-worth and self-value.	• Bénabou and Tirole, 2002

Appendix E.2: Interview questions

Section A: Definitions and perceptions of employability
1. Employability ○ What does employability mean to you? ○ How important is employability to you? ○ What are your expectations in regard to your personal employability? 2. Employability skills ○ Which skills do you think are necessary in order to be employable? ○ Which skills do you think you already have and how did you develop them? ○ Do you think that you will be able to (further) develop your employability skills during your time in HE? How?
Section B: Definitions and perceptions of confidence and confidence measures
3. Confidence ○ How would you define confidence? ○ What do you understand by the term self-efficacy? 4. How confident are you on a scale from 1 to 10: in general, in the academic context, and in a professional context? 5. On the basis of what/ how did you assess/evaluate your levels of confidence? 6. What are you not confident in in relation to your future employability?
Section C: Role of confidence within employability
7. How important is confidence for employability? Why? 8. What is the role of confidence within employability? 9. What effect could an increase in confidence have on your employability? 10. In how far do you need confidence to develop your employability skills? 11. In how far do you need confidence to display your employability skills?
Section D: Confidence development in HE
12. How can the university help you to develop your confidence in regards to employability skills? 13. What else could help you to increase your confidence in regards to employability skills? 14. Within the university setting, is there a specific example or situation which has helped you to increase/lose confidence? PROMT: Any particular sessions/activities? The way a course was taught? Anything the tutor(s) did? 15. How important do you feel that employability skills are in today's labour market in relation to course-related/technical skills? PROMT: How would you rate them? (%) 16. Do you think that it be advisable to teach employability skills as a course within the regular curriculum? Why/why not? How should it be taught?

Appendix E.3: Participant variables

Brunel University London

Participant Information

Gender	☐ Male	☐ Female	
Age	_____		
Study Course	_____		
Study Year	☐ 1st year	☐ 2nd year	☐ 3rd year
Programme	☐ Full-time	☐ Part-time	☐ Sandwich Programme
Status	☐ Home Student (UK)	☐ EU Student	☐ International Student
Funding	☐ Self-funded	☐ Scholarship	☐ Self-funded with loan
Living	☐ On campus	☐ Off campus (private)	
		☐ Off campus (home/family)	

Do you have any work experience? ☐ Yes ☐ No

If yes, what type of work experience do you have?

☐ Course-related part-time work ☐ Course-unrelated part-time work

☐ Placement/internship ☐ Voluntary work experience

☐ Prior full-time employment ☐ Other: _____

Are you a member of any society? ☐ Yes ☐ No

If yes, which one(s)? _____

Are you participating in any additional extra-curricular activities? ☐ Yes ☐ No

If yes, which one(s)? _____

Researcher Notes

Date of Interview:

Duration of Interview: from _____ till _____

Location:

Additional notes and comments: _____

_____

_____

_____

Appendix E.4: Participants' parameters (Study 3)

ID	Gender	Age	Course	Year	Programme	Status	Funding	Living (on/off campus)	Work experience	Society	Extra-curricular activity
P1	M	20	Business Management and Marketing	2	FT	EU	Loan	On	Y	N	N
P2	F	24	Psychology	3	FT	EU	Self-funded	On	Y	Y	N
P3	M	22	Physiotherapy	2	FT	EU	Scholarship	On	Y	Y	Y
P4	F	33	Business Computing	2	SP	UK	Loan	Off	Y	Y	Y
P5	F	21	Communications and Media	1	SP	IntS	Self-funded; Scholarship	On	Y	Y	Y
P6	F	19	Communications and Media	3	FT	EU	Self-funded	On	Y	Y	N
P7	M	21	Business Management	1	FT	IntS	Self-funded	On	Y	Y	Y
P8	F	18	Business Management	1	FT	IntS	Self-funded	On	Y	Y	Y
P9	F	18	Anthropology	1	FT	EU	Self-funded	On	Y	N	Y
P10	F	22	International Business	1	FT	IntS	Self-funded	On	Y	Y	Y
P11	M	18	Computer Science	1	FT	EU	Loan	On	Y	N	N
P12	M	20	Psychology	3	FT	UK	Loan	Off	Y	Y	Y
P13	M	19	Economics and Business Finance	1	FT	UK	Loan	Off	Y	Y	Y
P14	M	19	International Business	2	FT	EU	Loan	Off	Y	N	N
P15	F	19	Psychology	2	FT	UK	Loan	Off	Y	N	N
P16	M	20	Computer Science	3	FT	IntS	Self-funded	Off	N	Y	Y
P17	M	23	Mechanical Engineering	3	PT	UK	Loan	Off	Y	N	N
P18	F	25	Psychology	3	FT	UK	Loan	Off	Y	N	N
P19	M	21	Computer Science	3	SP	UK	Self-funded	Off	Y	N	N
P20	M	21	Business Computing	3	SP	UK	Scholarship	Off	Y	N	Y
P21	F	20	Sports Sciences	2	FT	UK	Loan	Off	N	N	Y
P22	F	21	Business Management and Accounting	2	SP	IntS	Self-funded	On	Y	Y	N

Appendix E.5: Participant information sheet

Brunel UNIVERSITY LONDON

Information Sheet

My name is Helga Lecca and I am a PhD student at the Department of Computer Science, Brunel University London. My research is motivated by the current challenges facing the UK Higher Education sector owing to changing government regulations on funding, fees and student numbers. In previous studies I have investigated student expectations in relation to their university experience, as well as the importance of student employability for graduates, employers and universities.

The present study is now investigating the role of confidence within the development of employability skills and the resulting implications for universities.

As a research participant you will be asked to answer some questions about confidence in general and within the context of employability. Your participation is completely voluntary. The interview will be recorded for later analysis, however, your identity will remain anonymous and all data collected will be encrypted so you cannot individually be identified. You are free to withdraw from the study at any time without facing any consequences.

If you have any concerns or complaints regarding the ethical elements of this project please contact siscm.srec@brunel.ac.uk or Malcolm Clarke, Tel. No. 01895 265053.

Appendix E.6: Participant consent form

Brunel UNIVERSITY LONDON

CONSENT FORM

The participant should complete the whole of this sheet him/herself

Please tick the appropriate box

	YES	*NO*
Have you read the Research Participant Information Sheet?	☐	☐
Have you had an opportunity to ask questions and discuss this study?	☐	☐
Have you received satisfactory answers to all your questions?	☐	☐
Do you understand that you will not be referred to by name in any report concerning the study?	☐	☐
Do you understand that you are free to withdraw from the study:		
• at any time	☐	☐
• without having to give a reason for withdrawing?	☐	☐
I agree to my interview being recorded.	☐	☐
I agree to the use of non-attributable direct quotes when the study is written up or published.	☐	☐
Do you agree to take part in this study?	☐	☐

Signature of Research Participant:

Name in capitals: Date:

Appendix E.7: Sample transcript

ID: P13
Date: 8 December 2014
Location: SJ050
Length of interview: 22 minutes 3 seconds

Interviewer: What does employability mean to you?
P13: Well employability means how … how well skilled are you into the job, like in terms of how … in terms of your skillset, how good … to the employer, what skills do they need that you have. And how much skills and qualifications you have. That's what employability is to me.

Interviewer: And how important is employability to you?
P13: In terms of like personally?

Interviewer: Yes.
P13: I think it's really important because obviously employability gets you a job. And how people look, how people perceive how I talk and what my skills and qualifications are is very important to me because obviously that ends to a job and …

Interviewer: And what are your expectations in regard to your personal employability within your field?
P13: My personal expectations of like why I want to achieve it?

Interviewer: Yes.
P13: I would like, yeah, I wanted … I don't know how you would measure employability but I want to get a good standard, like the standard of employability that is needed for my course, which is Economics, which means like I need to be an all-rounded person, good at teamwork, communication skills are vital. So I mean in terms of employability, in that sense, yeah, that's the expectation I want to get.

Interviewer: So you already mentioned teamwork and communication skills, which other skills do you think are necessary to be employable?
P13: I think personally for my course, presentation skills are really important because in the job sense you would be in office, you need to present ideas, projects and ideas, things like that. And also I think qualifications and, in terms of like for example maths, you need to be really quick, mentally. And you need to also be willing to go the extra mile, put the extra hours in, things like that. So in terms of that, I think it's really important…

Interviewer: And which employability skills do you think you already have and how did you develop them?
P13: I think I have had teamwork since I was really young probably the age of 9, because I've been playing sport since probably ten years now, playing rugby, cricket, hockey, tennis, so that in terms of teamwork and communication, I think that's where I learnt my teamwork skills from. And I don't lack presentation skills, Iike I don't know, just doing the occasional assembly in school and things like that! And in terms of patience, in a way, I think that still comes from sports because there are situations where you feel that your team's letting you down, you want to have a go at them, but you

don't at the same time. So you need to … so I've learnt in a way to, how to keep your temperament in cert … like in really bad situations. So yeah.

Interviewer: And what about skills like organisation skills, critical thinking, planning …?
P13: In terms of organisation skills, first of all, I would say that with, when … I've done a lot of extra-curricular activities, so I think you know it's organising your time for your academic things and your time for your extra-curricular things, that's where organisation comes. And also, what was the second …?

Interviewer: Critical thinking.
P13: Critical thinking, I don't know, that comes from mostly academic things and in terms of problem solving, things like that. Yeah, I think … yeah.

Interviewer: OK, do you think that you will be able to further develop your employability skills during your time at the university?
P13: Yes I think so because university obviously has a lot more opportunities compared to like even college or school. So … and there's a lot of diversity in university as well, so you can experience new things that you never thought you would get into. Like for example, I would never thought I would be tutoring people in maths, so that's something different.

Interviewer: You said you mainly developed your team working skills and your communication skills through your sports, what do you think, which skills can you improve through your time at the university?
P13: I want to improve my presentation skills because I think when I … when I'm front of people, I feel like a fluster, and I think in terms of what I can do personally to get over that barrier, I think I've still got a lot of room to improve in that skill.

Interviewer: And let's talk about confidence now and confidence within employability, how would you define confidence?
P13: I think confidence is an abstract term because everyone looks at it different ways. And people say, people think they're confident when they've got a question correct, when they think they've got a question right, that that's confidence. Or confidence is when you feel that you can have control of a situation, like I'm confident I can do this, I can do that. And you could say your confidence that you're winning or winning a match and things like that. I mean in terms of confidence, it's such an abstract term because you look at different ways. But I would say that it's a personal feel, it's a personal … it's like you're trusting yourself in a way.

Interviewer: OK, yeah, and what do you understand by the term 'self-efficacy'?
P13: I don't know the meaning of self-efficacy. I don't know …

Interviewer: Self-efficacy is confidence in relation to a specific situation or context.
P13: Oh right.

Interviewer: As you said, confidence is very generic, self-efficacy relates to a specific task…
P13: OK.

Interviewer: How confident are you, on a scale from 1 to 10, in general, in academic context and professional context?

P13: I would say like 8 and then 7 and probably 5.

Interviewer: So general is 8, academic, 7 and …
P13: Yeah and then professional, in terms of confidence, 5 because in a professional sense because it's a different world when you're in a professional set-up because you don't know what is … well because I'm actually, because I'm a first year, in a professional sense that rating's going to probably go up, but at the moment I feel that I'm not confident enough to what is right or wrong. So you kind of have to be careful in a sense

Interviewer: And on the basis of what did you just evaluate your confidence? How did you get to these numbers?
P13: You get to those numbers of I think your experience, your past experience, and you kind of weigh it up in terms of for example general confidence, like daily life, how to speak to people, who would you approach people, if you have questions or … And in terms of academic, you would see if you can do a question or if you can, if you're willing to try and things like that. And then in a professional sense, you would see, you would imagine the situation relating to a professional environment and see how would you fit in and things like that, so …

Interviewer: What are you not confident in, in relation to your future employability?
P13: I think I would say, in terms of presentation skills or how I come across, and maybe in terms of my academic sense as well. But in terms of an interview, I could feel that, like not in like this but (laughs) like generally I would feel in terms of what the pro … like for example, if the interview asked for a professional situation, I feel that I could improve on how, what the right answer is because I don't think at the moment, I would not know the answer.

Interviewer: But do you think you don't know the answer simply because you're lacking in knowledge and experience?
P13: Knowledge… yeah, I think it's knowledge and experience, definitely, because … and maybe it's because I'm a first year or I probably haven't had a job as well, so maybe that's one factor.

Interviewer: So it's not the fear of communicating, it's not the fear of talking to your future employers or to sell yourself, express yourself?
P13: I don't think it's that because I feel like I'm myself when I talk to people and if you sell, if you're yourself, that's the best you can. If you're someone else, then you're, you're kind of … you're how … like how someone perceives you, can't fake it because that's not yourself and they will be able to tell.

Interviewer: OK, so you're not confident about your current lack of knowledge but obviously you're in your first year, so by the time you reach …
P13: Hopefully those skills will be adjusted.

Interviewer: OK, how important is confidence for employability?
P13: I think it's really important because for example, you take an interview, it's the only, if you're very, if you're confident in yourself in general, it's very hard because that's the only chance you can sell yourself to an employer and employability is that snapshot, it's that who you are, yourself in that moment. If you're not yourself at that moment, then there is, you're not employable, simple as that. So obviously I think

employability as well it comes down to practise, practise on yourself, in terms of situations. And you know … so …

Interviewer: As such, how would you describe the role of confidence within employability?
I wouldn't say it's a role, I'd say it's like a trait.

Interviewer: OK, could you expand on that?
P13: So I would say that confidence is a trait because you would say that you've gained it, you've gained that confidence by the general confidence, by your academic, by your professional. So joined together it's an attribute. I wouldn't say it's a role, it plays a role but I would say it's more of an attribute. Because not everyone is confident, maybe they're confident on surface but maybe in terms of themselves, they might not be. So I think it's, I think a few people are truly confident but not everyone.

Interviewer: And do you think that you need confidence to develop your employability skills?
P13: I think definitely because in terms of improving your employability skills, you need to be confident because, in terms of improving your employability, you need to try new things, you need to stand out, you need to like … yeah, you need to stand out and you need to be willing to try new things because in terms of employability, if you don't try, you won't improve. And even if you fail, you've learnt those skills of why you failed and you can improve from the failing.

Interviewer: Do you think that you also need confidence to display your employability skills?
P13: Yeah like … yes definitely because like in a situation of an interview, you need to display that confidence to the employer and because the employer will imagine how would you feel, how would you fit in a work-based situation? And that's the snapshot, the interview is a snapshot of your employability. That's how you come across to an employer.

Interviewer: Can you think of any way how the university could help you to develop your confidence in regards to employability skills?
P13: Only the Ready programme itself. That is one of the programmes that Brunel you know obviously is doing. So that obviously will help because you're doing confidence, teamwork, communication skills, presentations, things like that. And obviously that helps your employability skills, by obviously with the certificate but also your general confidence as well because you would meet new people who you never thought you would, and other things like having tasks, just like really weird tasks as well. And you wouldn't imagine yourself doing them but then you're put into it and somehow you have to kind of get your way around it.

Interviewer: Is there any other way that, what the university could do?
P13: I think competitions, I wouldn't say like public speaking but I would say like, I don't know, like The Apprentice for example, Apprentice is such a good show, I personally think because it has everything, it has people are very confident in Apprentice, maybe they're not but it comes across as very professional plus confident and also teamwork skills is very much needed. And if, I think if Brunel do something like that, I think it would be fun first of all, I think it would give motivation to win if there's some sort of prize and things like that. And thirdly, in terms of compared to the Ready programme, where you're kind of forced to go into it and you've got like, you're

kind of restricted, for example one day you're learning about presentation skills, the other day you're learning about communication. But in terms of The Apprentice, I think it all blends in together, without you realising you are doing it. But compared to the Ready programme where you kind of have to be there to do it. But I think like such as The Apprentice, you can blend all those skills up into one.

Interviewer: So if you look at it that way, should there be several teams competing against each other, and then every week or every month, where one team falls out or should it be individuals and then every time somebody …
P13: Well maybe because it's university, you would probably have teams because obviously you want to maximise the number of participants in the programme. And if you did it in terms of the individual, you would be kind of discriminating the people who are will, who would be willing to want to improve their confidence or employability skills and things like that. So that, so definitely, I think teams is really important.

Interviewer: And then for how long should it run and …?
P13: I mean I think it could run … I think it could run till February, like the same times the Ready programme or even more because I wouldn't say it's much as work as the Ready programme because you would need to … the Ready programme we've got a presentation and course assignment to do. But I think if the business school does like a one day, on a Wednesday for example, when everyone's got, like everyone's free, you would have each week or month or so, month probably, you would have a task for them for the whole day.

Interviewer: And then they would have to present it and …?
P13: Yeah, presenting the whole day. And in terms of, it doesn't waste anyone's time really because you're kind of doing it on the day, you don't, it's not over a period of time. So people would be more willing to stay on the programme and plus they would be able to do it because they wouldn't have other assignments, things like that, wouldn't get in the way.

Interviewer: So should that be an extra-curricular activity or should it be within the regular …?
P13: I think … it depends which skill you're talking about because from a personal side, I think the business school would probably benefit the most out of it because business is sometimes communication, things like that. But probably an engineer, would you think, I personally wouldn't think that an engineer would need those skills as much as a person who is doing in the business school.

Interviewer: So you don't think an engineer needs time management, leadership, communication, team working …?
P13: I think he does but I think in terms of in a professional side, for the situation, probably an engineer would have a project for like in two months, and probably in the business world, a business person, in business management, they would need those skills literally every day, instead of like in two months' time we've got this project and that project. So I mean I think it should be a regular thing but in reality I don't think it would be because it would … I think that in terms of organising it, it would be really hard, in terms of, if it was for the whole thing, it was … I could imagine just for the business school or for economics or the maths or something.

Interviewer: So it should be after study courses, it shouldn't be mixed like with the Ready programme, where participants are mixed from all disciplines across the university?
P13: I think it should be for the business and economics students, I think, I recommend having it as a part of formal modules. Because then like, don't other universities have like these professional development programmes as a module, as part of the marks for your final grade? So I think that's really important because if that happens, people emphasise, people actually try and are willing, they would be willing to try in it. And obviously that would improve their personal skills.

Interviewer: So you think two things that could be done, one is a voluntary Apprentice style event …
P13: Event, yeah.

Interviewer: And the other thing would be a module …
P13: A module.

Interviewer: … within the regular curriculum, where you get grades and you would probably have to present and do assignments …
P13: Yeah.

Interviewer: … or you will be assessed in some way.
P13: Yeah, because in terms of the modules I do, like professionally I would not imagine, I mean none of those modules give me experience in the real world, but if I had a module in my curriculum, in my specification of professional development, I think that would be the most useful to be honest out of it, out of all the others, because I know I am going to use that in the real world. But all the others, it's kind of faint, I think like it's kind of everywhere because you don't know which actually, which knowledge you can actually use in the real world?

Interviewer: So would it help you also if professionals from your field would come to talk to you and …
P13: Oh definitely, public speakers, yeah.

Interviewer: … or students visiting the company, have a look?
P13: Definitely, like public speakers, things like that. But obviously like if you're doing The Apprentice, you'll have judges as, I don't know, employers or local business people, things like that. And obviously they would give feedback and that would be, obviously very beneficial to the people who are participating.

Interviewer: Would feedback from professionals be more beneficial for you than feedback from you lecturers or professors?
P13: Definitely, definitely. In terms of this, because it's the real world. And at the current time, they are in that field. So if they have that knowledge in that field, at the present time, that's obviously the best ones you could have. Because lecturers, probably lecturers, previously they might have been in a job but that's the past. But if it's now, that's the best thing you could have. So obviously employers and big local business people, that would be the best in terms of feedback.

Interviewer: Within the university setting, is there a specific example or a situation, where you have lost or gained a lot of confidence, you know, any certain task or something a tutor did or said, a specific module?

P13: It's like academically wise, in terms of academic sense or …?

Interviewer: Any type of confidence you know, perhaps somebody was laughing and now you are afraid of public speaking or …
P13: I don't know, like I would say in terms of sporting sense, where I've had a really bad match, in playing cricket, I would say that drained my confidence because I know I can do better but I only had one chance in the trial to show why … obviously it didn't go as well. So I know, personally I could do better but it drained my confidence that, the fact that they didn't pick me, that … in that sense.

Interviewer: And in the university, was some situation within the university setting?
P13: I wouldn't say I've had the situation yet that's completely drained my confidence. I would say like in terms of like very little things like getting the question wrong and things like that, that's … at the moment that's the only situation I have on my mind, rather minor things. But I haven't had something that's really major, personally.

Interviewer: OK, what effect do you think an increase in confidence could have on your employability?
P13: How could an increase in confidence affect, like how would it improve employability? I think … again confidence is such an abstract thing, like and in terms of employability, you take an interview sense, you would say that how you present yourself is really important and in terms of gaining skills for improving employability is really important as well. But yes, confidence is like, you were saying like one of the wheels in the machine probably, one of the main wheels that controls everything else around it.

Interviewer: And we talked about course-related technical skills on the one side and then the soft employability skills on the other side.
P13: Yes.

Interviewer: So in today's labour market, how would you weight them, if you have to give them a percentage, which one do you think is more important?
P13: Like the main skills on … so …

Interviewer: So the technical, course-related skills …
P13: Oh so the academic …

Interviewer: … that are specific to each, yeah they're specific to each field, and in comparison to the employability skills, the soft skills, that everybody should have …
P13: Yeah, personally I think it depends on the course itself and it depends on the field, it depends on the profession, because you would say that if you wanted to become a doctor, your technical skills need to be really important but on the other hand, your soft skills, your personality, how you come across to the patient. So in that sense it's balanced. But in a business sense, I would say …

Interviewer: In your field? In economics.
P13: In economics, I would say your soft skills, I personally think are more important because people have to like you in a business like professional, like in a professional situation, scenario. So if people don't like you, you won't get along, you won't get your work done, your confidence drains itself! Your employability kind of decreases in that

sense because how you come across in the business situation is extremely important but it also, it just depends on the profession itself.

Interviewer: So in your field, how you weight them, percentage-wise?
P13: I would say about 65/35.

Interviewer: 65 for the soft skills?
P13: For the soft, yeah, in terms of extra-curricular, presentation, teamwork needed and things like that, and 35% for academic.

Interviewer: Alright, thank you for your participation. (END OF RECORDING)

Appendix E.8: Coding scheme (excerpt)

Category	Sub-category	Description	Example
Definitions and perceptions of the term employability			
Employment		Having a job or full-time employment	P11: "To be employed by someone."
Skills	Attributes; qualifications; skills set; experience	The skills necessary to obtain or maintain a job	P4: "Whether or not you would be able to enter the workplace, the skills and experience that you'd need."
Economic reward	Salary; money; reward	Receive money for your employment	P5: "(…) it's also for money, you will receive money for your employment."
Reasons for the importance of employability			
Economic reward	Money; survival; to be able to afford things; income	Employability provides you with the means you need for living	P9: "Very important, because if you have a job, you have money; if you have money you can pay for the things you need; therefore, you can survive."
Personal achievement	Success; achievement; personal goals; life style	Self-perception	P20: "It's [employability] going to give me a stable life in the long-term for what I want, so I have a particular goal and in order to achieve that goal I need a lot of employability."
Status	Status; perception of others; society	Status in society	P13: "How people perceive you"
Which skills are necessary to be employable?			
Transferable skills	e.g. team work, organisational skills, leadership, communication, etc.	All skills that are related to GGA	P19: "Communication, teamwork, taking initiative, these are the type of basic skills that can be used across all different type of industries really."
Specific job-related skills	Technical skills; course-related skills	Skills which are needed for the specific job or industry	P21: "It depends on the job I guess. In my field fitness and the related self-discipline is very important and well as obviously the stuff you learn in uni."
Computer skills		Skills related to IT usage	P22: "Computer skills such as Word, Excel and Power Point are very important."
Personal attributes	e.g. honesty, reliability, emotional intelligence	Skills which are mostly depended on an individual's character and values	P7: "I think responsibility and honesty are two of the most important things."
How have the existing skills been gained?			
Work experience		Gaining skills through any kind of work experience, e.g. volunteering, part-time job, prior full-time employment	P19:"I have developed my skills as part of my part-time employment, before joining university, as well as I've enhanced them whilst on placement."
Participation in extra-curricular activities	Hobbies; sports	Any activities outside the regular curriculum or outside the university setting	P21: "I do lots of things outside after uni, like I'm in a dance class and do sports like volleyball and badminton. You learn a lot about people and behaviour there."
During study course	Class room; degree; studies	Any setting or activities directly related to the degree course	P17: "I guess general skills that you pick up when you're studying. (…) Every year we have team exercises which are part of our core modules."
What is confidence?			
Self-belief		To trust oneself	P8: "To believe in yourself and

			know what you can achieve."
Abilities	Competencies; skills	To have the necessary skills, abilities, competencies or knowledge	P15: "To be competent in what you are doing, so having the knowledge behind what you are doing."
Comfort	Courage; bravery; risks	To be comfortable with certain situations and interaction with others	P1: "I would define it with being comfortable…"
Motivation	Willingness; resilience	To be motivated and willing to do things	P7: "…your willingness to do something…"
Character	Personality; personal trait	To have an outgoing character or to be out-spoken	P14: "Confidence is to be easy-going…"
How do you assess your own confidence levels?			
General confidence			
Comfort		How comfortable the individual feels in any real life situation	P22: "I usually just feel comfortable in my own skin."
Interactions	Talking to (new) people, Approaching people,	How the individual behaves in social settings	P13: "Thinking about daily life, like, how to speak to people, how would you approach people…"
Decision-making	Choice, opportunity, chance, risk	How the individual approaches opportunities and takes chances	P7: "The things you do is your own choice, but even though sometimes it doesn't seem like we have that many options but the options are actually there, So it's just up to you to choose and I choose what I want."
Approaching new situations	Approaching challenges; Approaching new settings; Dealing with new things	How the individual behaves in new situations	P8: "I thought about different situations in my life and tried to remember how I felt. I usually don't mind challenges and always find a solution somehow."
Personality	Character	The individuals self-image or self-perceptions	P15: "I evaluate it based on my personality, so whether I'm outspoken, whether I stand back and just take things in or whether I will speak out."
Academic confidence			
Previous experiences	Understanding	Statements that mention any type of previous experience in an academic setting	P2: "…based on my understanding and my experiences in the last three years."
Achievements		Any type of academic achievement	P22: "I already have a degree, so I know what I can achieve academically."
Assessment outcomes	Grades; exams; assignments	Any type of graded assessment	P11: "Based on academic scores, what exams ad tasks you get in school."
Feedback		Feedback from lecturers, mentors or tutors	P9: "I did some fieldwork for my course and I got some feedback this week because there was practical and theoretical for the essay."
Group work		How the individual works in a group setting	P7: "If it's individual work I'm pretty confident. But when it comes to group work, my confidence is low, because from the experience we have now; it's like we have team members that like to disappear and then you have to chase after them."
Participations	Asking questions; answering questions; understanding	Participation in class	P13: "You would see if you can answer a question in class or if you can, if you're willing to try and things like that."
Professional confidence			

Previous experience		Any comments about previous work experiences from part-time jobs, full-time employment, volunteering, etc.	P9: “So far in my volunteering work I’ve done pretty well, I didn’t have any problems communicating or doing my tasks, so I feel like I have, I’m confident in doing so far what I have been asked to do.”
Feedback from supervisor or manager	Feedback from supervisors or managers; feedback during interviews	Work-related feedback	P21: “My boss is always happy with me.” P10: “I had no confidence when applying for the job because I was so young but then I received really good feedback during the interview and got the job.”
Task management		Any comments related to how individual approached or managed a (new) task or activity	P8: “Well, thinking about the tasks I have at my job and I think I do really well. I didn’t have problems with any task so far.”
Skills	Skills; knowledge	Having the necessary skills and knowledge to do a job	P15: “I thought about my skills and like the knowledge to be able to do the job.”