Exploring the differences in factors affecting engagement in employability development activities between UK and Chinese students

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Abstract

Employability as a concept emerged at the beginning of 20th century and has evolved, from initially relating to just the economy to now include aspects of psychology and education. The UK government suggested the use of Personal Development Planning (PDP) and Progress Files (PF) for the universities in the development of these employability skills. UK higher education institutions (HEIs) have attracted a considerable amount of non-UK students. This situation requires that UK HEIs not only focus on the PDP of home students, but also of international students. This study focuses on Chinese students studying in UK HEIs and predicts that they have a lesser need for PDP. Quantitative research methods were adopted in the form of a well-structured questionnaire that surveyed a total of 768 students to explore the possible influences that may cause lower engagement with PDP activities.

The impact of Guanxi, as a factor in Chinese society, has on engagement student in PDP activities is explored. Differences in the need to engage with PDP activities were found between Chinese and UK students. However, this difference does not come from the impact of Guanxi. On the other hand, a strong connection between Guanxi and family ties exists for Chinese students. The findings in this thesis found higher probability of engagement of PDP activities from students participating in non-credit bearing activities recommended by academics. The findings of this study show differences in the perception of Chinese and UK students towards PDP activities and identify the probable key issues UK HEIs could focus upon when considering the PDP process in the future, for instance that Chinese students prefer online resources whereas British students wish to look for information in the Careers Office.

Key words: employability, personal development planning, progress files, Guanxi, Chinese students.

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Author's Declaration

I declare that this thesis is a presentation of original work and I am the sole author. This work has not previously been presented for an award at this, or any other, University. All sources are acknowledged as References.

Parts of the research have been presented in a conference paper (*Feiyue Ji, "Employability Research in Engineering Students - Personal Development Planning Based Research", in: Programme and Abstracts, International Conference on Information Technology Based Higher Education and Training, York, 11-13 September 2014, session 17*).

The software used in the simulations was either used under University licence or was shareware.

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Introduction and Background

The phenomenon of unemployment and marginalization is present all around us in the world (Weinert, 2001) and programmes supporting employability have developed as a major counteractive tool. Employability is the capability to move self-sufficiently within the labour market to realise potential through sustainable employment (Hillage & Pollard, 1998). It is not an exactly new concept, however, what is new is the increased weight of explanation places on it, to be able to change the position of job-seekers where they currently taking place in the economy and labour market.

Globalization and technological change happen rapidly, especially in recent decades. New information technologies supply higher automation leading to the replacement of a portion of workers by machines. This leads to an increasing job insecurity and job displacement and also washes out the unskilled from the employment market. These challenges increase the unemployment rates in many countries. The solution requires the job-seekers to improve their own employability to adapt the new employment environment (Finn, 2000).

In order to respond to these challenges, the level and quality of skills required are rising and becoming crucial factors. This also calls for increasing technical competencies and expertise in social information. What is more, there is an increasing demand directed towards essential competencies, such as flexibility, adaptability, problem solving, creative thinking and innovation; a basic knowledge of several occupations and a good general education; and the ability to take action independently and cooperate with others to seek improvement (Carnevale, 1990).

In East Asia in some rapidly-growing economies, such as China, this type of analysis and research on links between skills, labour reallocation and productivity is fairly

scarce, though it is rapidly developing in other regions, including the OECD (Organisation for Economic Co-operation and Development, UK is a member of OECD), LAC (Latin America and the Caribbean) and ECA (Eastern Europe and Central Asia) (Di Gropello & Sakellariou, 2010). Several documents suggest that both UK and China most want 'high level' skilled staff (Di Gropello & Sakellariou, 2010; Vivian, 2016). But in detail, the UK economy is dependent upon having the skills required to support knowledge-based products and services (UKCES, 2014); whereas China needs employees with expertise in internationalized management, strategic planning, and capital management (J. P. Morgan, 2016). This is because the UK positions itself as a leading knowledge-based economy and China's economy is in transition to becoming a high-value-added manufacturing and modern service industry.

Several questions, therefore, have arisen naturally:

- What is the definition of employability?
- Is employability the best way to respond to the job insecurity in the labour market?
- How can an individual improve their level and quality of skills?
- What are employability skills consisted of?
- Is personal development planning (PDP) the proper way to improve an individual's employability in Higher Education Institutions (HEIs)?
- How can students be encouraged to engage in activities of developing employability?
- Does Chinese students have different need on PDP activities than UK students?
- What else could be effect on students' engagement of PDP activities (such as gender, mode of study, level of study, subject, post-graduation employment arrangement, etc.)
- What makes the students fail to engage in employability development activities?

The thesis targets students of HEIs, and the research seeks to identify the level of

student engagement in PDP supporting their student employment. In order to do this, this thesis firstly examines PDP as a suitable solution for developing employability in universities. The concept of PDP is looked into along with the manner of recording PDP – progress files. Lastly, the demand for PDP activities by students from different background is discussed, with a focus on UK students and Chinese students who study in the UK HEIs.

Focus and purpose of this research

With the increasing pace of information technology development, the lifetime job security only applies to a minority of the workforce (Standing, 1997). The increasing uncertainty of a job role requires individuals to build new relationships with employers. Economic competition encourages the labour market to eagerly expect individuals who are skilful, qualified to several positions in the organizational unit, and have a personality that is suitable for a particular job (Brown, Hesketh, & Wiliams, 2003). For the individual, employability is created by the knowledge, skills and attitudes they possess and while they seek work, employers will measure their ability to use those assets and connect them to the context (e.g. personal circumstances and labour market environment) (Hillage & Pollard, 1998). Under the labour market policy driven, at the national level, employability became a long term governmental strategy in the UK two decades ago (CEC, 1999); it was then expressed to other European states as a key theme during the UK's EU presidency in 1998 (Verhaar & Smulders, 1999). Over the past 65 years, expectations for contribution to the development of a variety of complex skills from governments, employers and other stakeholders have grown (Knight & Yorke, 2003). In the UK, promotion of graduate employability is required from higher education institutions (HEIs) anxiously. Gradually, it becomes the responsibility of HEIs to prepare students for the graduate labour market and develop their professional skills (Cranmer, 2006). HEIs participate in preparation for the 'education-to-work' transition to ensure the new graduates are employable. According to Destinations of

Leavers from Higher Education (DLHE), after six months of graduation, students from different subjects of study have differing outcomes of their destinations. Over 70% of students who in employment occupied with their professional skills and/or technical skills (HESA, 2018). To enhance employability, the students are willing to work with personal development planning (PDP) processes (Johnson, 2010). (It should be mentioned that PDP can also stand for professional development planning, which can be transferable with personal development planning, but in universities PDP often means personal development planning.) It is thus that employability is researched on the basis of PDP in this project.

The development of students' employability makes the graduate relatively more competitive in the labour market. It is necessary to equip graduates with skills not only academically, which are traditionally represented by the class of their degree and the discipline (Mason, Williams, & Cranmer, 2009), there are also reports that employers urge the universities to make more efforts to develop skills needed in many types of 'high-level' employment, including 'key', 'core', 'transferable', and/or 'generic' skills (CIHE, 1996; Hawkins, Winter, & Hunter, 1995; Industry, 1994; UK Universities, 2002). These skills the employer most wanted include: commercial awareness, communication, teamwork, negotiation and persuasion, problem solving, leadership, organisation, perseverance and motivation, the ability to work under pressure and confidence (Target Jobs, 2017). Employers expect that new graduates possess the skills, knowledge, attitudes and commercial understanding that will empower them to make productive contributions to organisational objectives soon after starting their employment (Mason et al., 2009). Indeed, the employers seek for graduates to be prepared to 'plug and play' to save the cost on expensive and intensive training before new recruits can 'add value' (Brown et al., 2003), commercial pressure demands graduates who do not require a long learning period when they are commencing employment (Mason, 1998; Mason, 1999). A couple of discussions encourage the

students to understand the skills needed within the labour market to enable them to learn throughout sustainable working lives (Hillage & Pollard, 1998; Morey et al., 2003). The broader conceptions of employability show the influence of the 1997 Dearing Report, which suggests that a number of generic skills are not only required for employment, but also relevant throughout life (NCIHE, 1997). These recommended skills are communication, numeracy, IT skills and learning how to learn at a higher level, and such skills are suggested as a central aim for higher education. In the meantime, the government funded a number of programmes to encourage HEIs to develop such skills in order to help students embrace 'high-level' employability skills. The Higher Education Funding Council for England (HEFCE) funded several projects such as: Graduate employment and accreditation in STEM, Enhancing Graduate Employability: Skills agenda going forward, National strategy: links to supporting evidence, Employability statements, Graduate Employability, etc.

There are many reasons for conducting this study: one being the researcher's personal keen interest in employability. Coming from China, the word 'employability' is a new concept, and is not currently introduced in Chinese universities and society, while the UK government has already pursued it for two decades. Discussing the concept with my supervisor as an idea for this potential PhD, a project addressing the following areas of interest emerged: the effect of engaging in personal development planning (PDP) activities and Guanxi, which is the concept of drawing on connections in order to secure favours in personal relations. It is an intimate and pervasive relational network in which Chinese culture energetically, subtly, and imaginatively engages as a factor in society (Luo, 2007). That essentially means Chinese people look to secure employment through "who they know not what they know". Historically, the UK had a similar situation, but with increased globalization and UK HEI expansion, this process has been less visible. However, there are still a proportion of jobs that are not advertised but given to someone pre-identified as capable for the position with personal connections.

Several ways to link this research and explore the preferences of students from the UK and China, to gather information and to investigate their perceptions of the same concept, emerged. It is the researcher's desire to quantify these individuals and use a macroscopic scale to probe into the phenomenon. The topic itself further provides an excellent opportunity to absorb the knowledge related to the concept of employability, the practical solution for developing employability skills in HEIs, and the difference between UK and Chinese students studying in the UK. This research area is not only important in academia but also a great challenge for the researcher. How could the research be carried out? What are the gaps? What will be the timeline of this study? What impact will this study make? These questions engaged the researcher in the project straightaway.

Defining the objects of the research

This study will serve as a guideline to understand the importance of employability and personal development planning (PDP) and the role that employability plays in the 21st century. It will further detail information on Chinese students who study in the UK as they represent the largest population of international students in the UK (HESA, 2017). The phenomenon of a large number of Chinese students choosing to pursue their higher education in the UK is to improve their foreign language skills, to have several years of oversea experience and to win UK degrees which are seen as having greater career value than Chinese degrees (Counsell, 2011). The findings of this thesis will help UK HEIs understand the perceptions of Chinese students and UK students on employability, their preferences for engaging in PDP, Guanxi's impact on Chinese students, and the effect of the academics' advice on activities with no credit attached to them. The overall objectives of this research study includes theoretical and empirical objectives.

Theoretical objectives

The following are the key theoretical objectives of this thesis:

- Establish clarity in employability research, especially in universities on the basis of personal development planning (PDP);

- Define employability from three angles: education, economics and students' perception;

- Present an up-to-date literature review of employability and PDP;

- Explore Guanxi as a cultural effect in China.

Empirical objectives

The following are the key empirical objectives of this thesis:

- Study the key factors that impact the individuals' engagement in PDP activities, UK verse Chinese students;

- Identify whether there is a statistical difference between students in several different groupings includes: male verse female, undergraduate verse postgraduate, science verse other, full time verse part time, final year students verse earlier year students, students secured post-graduation employment verse who are not, students have previous employment experience verse who are not;

- Identify from results that the different implications of the difference.

Outline of the dissertation

The doctoral thesis is divided into eight distinct chapters:

Chapter 1 provides an overview of the concept of employability and the history of its evolution. Employability is supported by Personal Development Planning (PDP) and

Progress File (PF) in UK higher education systems, so this chapter continues to review the importance of PDP and PF. The cultural differences between UK and Chinese students, specifically the Chinese phenomenon known as Guanxi, are discussed. Other potential differences that may cause performance discrepancies in the preparation, implementation and monitoring of PDP are presented and lead to the research objects of this study.

Chapter 2 details the methodology used in this study, focusing on the quantitative research method as a scientific approach for exploring a phenomenon and testing hypotheses. As support by the relevant theories, this is perfectly suited for this study. The sampling and coding procedures are also introduced. Finally, the potential limitations are discussed.

Chapter 3 provides detail on the series of quantitative experiments used to test various influences on engagement with PDP activities. These tests further look into the related perceptions of UK and Chinese students in different disciplines.

Chapter 4 analyses the needs of PDP on the basis of students' preferences for activities recommended by university staff that do not earn credit towards their academic qualifications.

Chapter 5 introduces the findings related to other questions and analysis of results in this study.

Chapter 6 provides discussion and conclusion providing recommendations for HEIs on how to encourage students to engage in PDP and possibilities for further work opportunities.

According to HESA, the term science and other define as:

Science: Medicine & dentistry, Subjects allied to medicine, Biological science, Veterinary, Agriculture & related subjects, Physical science, Mathematical science, Computer science, Engineering & technology, Architecture, building & planning.

Other: Social studies, Law, Business & administrative studies, Mass communications & documentation, Languages, Historical & philosophical studies, Creative arts & design, Education, Combined.

Chapter 1 Literature Review

1.1 Overview

This project has researched employability among students who study in the UK, as well as Personal Development Planning (PDP) and Progress File (PF). This literature review consists of three parts focusing on these three topics – employability, PDP and PF. In the early literature, there are different perspectives used to define the terms employability, PDP and PF, which are mainly based on the economy, education, sociology and psychology.

The main theories of employability will be reviewed in section 1.2; and then previous studies on Personal Development Planning (PDP) and the motivation for engagement in PDP will be demonstrated in section 1.3. Section 1.4 focuses on Progress File and its importance. Skills for employability are introduced in section 1.5. The features of Chinese students studying in the UK and the role of culture will be discussed in section 1.6. In section 1.7, the probability of Chinese students engaging in PDP activities through Guanxi will be examined. Section 1.8 introduces other influence that may impact students' engagement with PDP activities. Section 1.9 is a summary of this chapter.

1.2 The definitions of employability

In this part, the theories of employability will be reviewed from different aspects first. Then, its benefits and relationship with PDP and PF will be demonstrated later.

The debate surrounding the issue of 'What is employability?' and about 'Quality' in higher education began in the early 1990s (McGrath, 2009). At that time, there was much debate about 'What do we mean by quality?' 'Can we define it?', or 'Do we just know it when we see it?' (Harvey, 2001). There was a long wait before these questions began to be answered and 'quality and standards' were set. There have been several attempts to adapt industrial quality of employee models to higher education; the development of knowledge leads non-stop debating (Harvey, 2001).

Several theories will be reviewed, starting from the development through the economical and sociological perspectives, including the evolution of the concept of employability in section 1.2.1. In section 1.2.2, the combination of the economic and educational perspectives will be demonstrated. The concept as it applies in higher education will be emphasised in the section 1.2.3. In the last section 1.2.4, of this part, the students' perspective will be introduced.

1.2.1 The evolution of the concept of employability

In this section, the literature on employability over the last century and summarised by Gazier will be first introduced. The different ways of researching employability used in the last two decades will be illustrated later.

1.2.1.1 Gazier's literature of employability

Gazier previewed employability in a useful way and developed the definition which is broadly agreed upon today. Eventually, he separated this concept into seven operational versions with the names seen in *Table 1* (Gazier, 1999, 2001; Weinert, 2001):

Year	Origin	Employability terminology
1900s	UK, US	Dichotomic employability
1950s	UK, US, Germany	Socio-medical employability
1960s	US	Manpower policy employability
1960s	France	Flow employability
1970s	World	Labour market performance employability
Late 1980s	North America , Europe	Initiative employability
Late 1980s	North America (later all over the world)	Interactive employability

Table 1 History of employability terminology evolution

These terminologies have the following definitions:

- Dichotomic employability – arising in the UK and the US at the beginning of the last century. Gazier formulated employability into 'employable' and 'unemployable'. Which initially without, or with only a little, gradation means employable only refers to people who were able and had the will to work; unemployable, on the opposite side, refers to those who were physically unable and in the need of support (Gazier, 1999).

- Socio-medical employability – emerging before the mid-20th century and mainly developed in the UK, the US, and Germany. This refers to the gap in the existing work abilities of socially, physically or mentally disadvantaged people to the requirements of the role of the employment (Gazier, 1999).

- Manpower policy employability – started to develop mainly in the US over half a century ago and is generally extended to fit within socio-medical employability.

Again, it focuses on the socially disadvantaged groups and emphasised the distance between existing work abilities and the work requirements of employment (Gazier, 1999).

- Flow employability – emerging in the 1960s in France. Came out of sociological literature and focused on the needs of employers and how to access the local and national economics. It is defined as "*the objective expectation, or more or less high probability, that a person looking for a job can have of finding one*" (Gazier, 1999; Ledrut, 1966).

- Labour market performance employability – term was agreed upon at the end of the 1970s internationally. This understanding of the concept pays attention to labour market outcomes. To measure this, the average time working every day is taken into consideration with the payment rates, and the outcomes from the labour market to the individuals that take part in the programme are related to employability (Gazier, 1999).

- Initiative employability – emerging in the late 1980s, this concept began in the literature of North American and European human resources development programmes. The individuals transfer skills to suit the job role to succeed in career development in certain organisations. This is, once more, focusing on the individual, with the responsibility on the workers to develop their personal skills and attributes to make them more suitable to the workplace (Gazier, 1999).

- Interactive employability – also developed during the late 1980s in North America, and later internationally. The individual interaction was still emphasised as well as the relationship between individual employability, the employability of others and the opportunities, institutions and rules governed by the labour market. In this, an

individual's employability is determined by the importance of the role of the employers and labour. Gazier then divided this approach to employability into two thoughts – individual employability and institutional employability. Policy-makers identify who are the long-term unemployed and otherwise disadvantaged and once the government has these results, it concludes how to seek to intervene to prevent long-term unemployment and subsequent labour market disadvantage (Gazier, 1999).

The evolution of the concept of employability described by Gazier shows employability has played an increasingly important role in the last century. Gazier then suggested the seven versions of the concept of employability can be organized into three stages. The first stage is one emerging in the early 20th century, focusing on 'dichotomic employability'. It does not perfectly define 'employable' or 'unemployable'(physically), however, it became a simple model for the labour market's purposes. Nevertheless, a more recent model of this concept posed that unemployed people might be 'unemployable' partly because of technological improvements (Saint-Paul, 1996). The second stage began in the 1960s, and is in very different versions: statisticians, social workers and labour market policy-makers have used the concept to consider the distance between individual attributes and the demand for work in the labour market. In the third stage Gazier suggested a concept of 'interactive employability' as a defining idea in labour market policy, reflecting upon the acceptance that employability policies should not lean heavily on individuals, but also be aware of demand-side components. Individuals are expected by emplyers to have transferable (soft) skills in terms of: teamwork, leadership, personal motivation, organisation and time management, listening, written communication, verbal communication. research and analytical skills, numeracy skills, personal development, information technology, etc.

Gazier then considered both first stages (dichotomic employability and social-media employability) and significantly turned the concept into a fresh formulation originating in the 1980s with further development in the 1990s. The labour market performance employability is outcome-based; initiative employability has a focus on the responsibility of the individuals; interactive employability mentions the individual adaptation and also introduces the priority of the interactive (Gazier, 1999). Gazier summarised that the earlier visions of the concept of employability had been out of date and described them as static and unilateral. The labour market performance employability remains at a basic level of policy evaluation; during initiative employability there is a limitation on human resource development (Weinert, 2001).

Indeed, the literature of human resource development continued using employability as an important term to explain and describe the concept. The labour market has no longer considered loyalty a necessary aspect, as in the traditional employment model (Baruch, 2001; Ellig, 1998; Rajan, 1997). Instead, the employer and employee seek a kind of balance between work and personal time in the contract. However, in recent years, some commentators pointed work-life balance is obsolete and outcome based work-life blending may be a better solution (Davis, 2018; Roque, 2017). Meanwhile, personal development allowed the possibility for individual employability to improve through continuous learning. The UK government has suggested that individuals should not be limited to a single employer, but should attract other employers based on the skills they have (DfEE, 1997). Competitiveness inside or outside of the organisation increases the flexibility and adaptability of the workforce therefore developing their employability (CBI, 1999). In recent years, the adaptability of organisations has become more significant as well (McQuaid & Lindsay, 2005).

1.2.1.2 Definitions of employability in the last two decades

Employability has had various definitions in the last two decades (see *Table 2*). However, the definition was largely relied on the suggestion presented in 2006 from Enhancing Student Employability Coordination Team (ESECT) (Yorke & Knight, 2006).

Employability was introduced in 1998 by Hillage and Pollard in the report for DfEE, UK, and was accepted by the British government instantly. The British government pushed this concept as a theme to other European states during its EU presidency (Velikova et al., 1999). It was defined as the capability to move self-sufficiently within the labour market to realise potential through sustainable employment (Hillage & Pollard, 1998). This concept of employability had been debated for nearly one century (see 1.2.1.1) before the government-agreed definition was released and, until now, the conversation in academia has never ceased. Hillage and Pollard (1998) proposed employability as a person's capability for gaining and maintaining employment. The original concept of employability is simply the ability to look for employment; and this implication has remained until today. However, more meanings were required due to the increasing importance of employability (such as changing working environment, be able to continue to be employed). Then Knight and Yorke (2003) presented a definition describing employability as the ability to explore the most probable ways of gaining an employment successfully in a chosen occupation based on individual's achievements, understandings and personal attributes; whilst Garsten et al. (2004) mentioned that the competencies and labour-market-oriented behaviour are also significant for every person participating in the workforce. It is worth noting that students think ability is an important issue when looking for employment (Tomlinson, 2007). For many people, employability is as simple as getting employed, and subsequently, the careless use of the term 'employability' has increased and is sometimes even interchanged with 'enterprise', which in turn is confused with 'entrepreneurship' (Pool & Sewell, 2007).

Aside from actually gaining employment, the motivation of students engaging in learning activities is also considered part of employability training, meaning PDP is certainly included (Pool & Sewell, 2007).

Harvey (2001) demonstrated two interrelated problems with the measurements of employability pragmatically. First, the insistence that employability should be measured by outcomes such as recent graduate employment rates. Second, the tendency to view employability as an institutional achievement rather than one of the individual student. Therefore, employability can be divided into two parts - individual employability and institutional employability. In this thesis, both individual employability and institutional employability are discussed.

The ability to gain employment has never been changed as an aspect of the concept of employability. Furthermore, Harvey described that employability is not simply gaining employment, but also showing that the individual can find a 'graduate-level job' (Pool & Sewell, 2007) in a specified time (6 months after graduation as HESA suggests DLHE) by using employability skills. Graduate employability skills are not only the key transferable skills, but also require the degree classification, relevance and reputation of qualifications achieved by graduates (Archer & Davison, 2008). The recruitment of personal attributes for employability skills is rather important and the individual will still have to possess the "*willingness to learn and continue learning*" (Harvey, 2001).

Employability has been defined from angles that differ from Hillage and Pollard's theory. McQuaid and Lindsay explained this concept combined with labour market policy in the economical and sociological view (McQuaid & Lindsay, 2005). Several studies looked at employability in-depth from an educational perspective (Harvey, 2001; Pool & Sewell, 2007; Tomlinson, 2007).

Author/year	Employability definition
HM. Treasury (1997)	Employability means the development of skills and adaptable workforces in which all those capable of work are encouraged to develop the skills, knowledge, technology and adaptability to enable them to enter and remain in employment throughout their working lives.
Hillage & Pollard (1998)	The capability to move self-sufficiently within the labour market to realise potential through sustainable employment. For the individual, employability depends on the knowledge, skills and attitudes they possess, the way they use those assets and present them to employers and the context (e.g. personal circumstances and labour market environment) within which they seek work.
Confederation of British Industry (1999)	Employability is the possession by an individual of the qualities and competencies required to meet the changing needs of employers and customers and thereby help to realise his or her aspirations and potential in work.
Kirby Report (2000)	Employability involves self-belief and an ability to secure and retain employment. It also means being able to improve ... [the worker's] productivity and income-earning prospects. This often requires competing effectively in the job market and being able to move between occupations as necessary. It requires 'learning to learn' for new job opportunities.

Author/year	Employability definition
Hinchcliffe (2001)	Employability is having a set of skills, knowledge and personal attributes that make a person more likely to secure, and be successful in their chosen occupation.
DEPARTMENT OF HIGHER AND FURTHER EDUCATION (2002)	Employability is the capability to move into and within labour markets and to realise potential through sustainable and accessible employment. For the individual, employability depends on: the knowledge and skills they possess, and their attitudes; the way personal attributes are presented in the labour market; the environmental and social context within which work is sought; and the economic context within which work is sought.
Harvey (2003)	Employability is not just about getting a job. Conversely, just because a student is on a vocational course does not mean that somehow employability is automatic. Employability is more than developing attributes, techniques or experience just to enable a student to get a job, or to progress within a current career. It is about learning and the emphasis is less on 'employ' and more on 'ability'. In essence, the emphasis is on developing critical, reflective abilities, with a view to empowering and enhancing the learner.

Author/year	Employability definition
ESECT, 2004, 2006 (J. Moon, 2004; J. A. Moon, 2004; Yorke, 2006)	Employability is a set of achievements – skills, understandings and personal attributes – that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the workforce, the community and the economy.
The Pedagogy for Employability Group, 2004 (Brown, 2004)	Employability is enhanced through students' active engagement in a range of learning activities (including PDP), and when their employability outcomes are explicitly stressed. Vignettes of practices that are supportive of employability are included.
Pearce & Randel (2004)	Employability is where employers provide interesting jobs and opportunities to develop skills . . . [for a] mobile career
Rothwell & Arnold (2007)	The individuals' ability to keep the job one has, or to get the job one desire.
Thijssen, Van der Heijden, & Rocco (2008)	Employability is the possibility to survive in the internal or external labour market.
Bridgstock (2009)	Employability is an ongoing process of engaging in reflective, evaluative and decision-making processes using skills for self-management and career building, based on certain underlying traits and dispositional factors, to effectively acquire, exhibit and use generic and discipline-specific skills in the world of work.

Author/year	Employability definition
Hogan, Chamorro-Premuzic, & Kaiser (2013)	Employability is an attribution employers make about the probability that job candidates will make positive contributions to their organizations.
Vanhercke, De Cuyper, Peeters, & De Witte (2014)	The individual's perception of his or her possibilities of obtaining and maintaining employment.
Williams, Dodd, Steele, & Randall (2016)	Employability is anything an individual possesses that can be seen as leading to an increased probability of positive economic outcomes, or other personal outcomes relating to the area of work.

Table 2 Definition of employability over the last two decades

1.2.2 The Connection Between Higher Education and the Economy in the UK

Literature on employability has developed over the last century, but the connection between higher education (HE) and the economy was only made explicit half a century ago. It made employability much nearer to the research object – the student.

The Robbins Report in 1963 demonstrated one of the four targets of HE as follows: "We begin with instruction in skills suitable to play a part in the general division of labour (Robbins, 1963)." The Report located this target as the priority, aiming at increasing recognition of the risk that economy might have ignored or undervalued the importance of higher education. It went on to include that most students think about their future careers before they begin higher education.

The vital role that higher education plays in the modern economy was particularly pointed out with attention by NCIHE (1997). The Dearing Report stated global competitiveness requires that: "Education and training should enable people in an advanced society to compete with the best in the world (NCIHE, 1997)." The governments around the world have therefore determined the employability of graduates is one of the important issues in higher education or even secondary education, reflecting an acceptance that the concept of employability is related to human capital theory (Becker, 1975). Within human capital theory, the globalised society requires that the government should encourage growth in the stock of human capital. In this context, this theory refers to the transition from employability to personal development planning. Then a report from the Treasury briefly introduced that:

> Human capital directly increases productivity by raising the productive potential of employees. [. . .] Improving skills and human capital is important in promoting growth, both as an input to production and by aiding technological progress. This has been recognized both in endogenous growth theory and also in empirical studies comparing growth in different countries. (HM. Treasury, 2000)

A previous Secretary of State for Education and Employment has indicated that a failure in developing people has contributed to the UK's 'productivity shortfall': "In part [the shortfall] reflects lower investment in physical capital. But in part it also reflects less investment in human capital – a less well-educated, less well-trained workforce" (Blunkett, 2001).

There are many source of knowledge growth, two of them are relatively important. One of them is the learning-by-doing that takes place in innovative workplaces (HM. Treasury, 2000). The other is the higher education system. The higher education system

is guided by the government, and increasing attention on employability is one of the aspects of higher education's responsibilities. Human capital is comprised of individuals and favourable outcomes are elicited from training and schooling. Employability relates to the degree to which the human capital someone possesses allows them to compete for their job role (Williams et al., 2016).

Some commentators have questioned whether human capital is the key to economic growth (Morley, 2001). They doubt these assumptions and whether 'employability' is an empty concept or not. They say that even if the concept has value, higher education will still have to work to develop employability as the government has tried to advise (Atkins, 1999). Although these are significant challenges, the known understandings of employability are still reasonable for politicians to use to encourage developing employability. Here, employability activity in higher education takes the form of Personal Development Planning and Career Management and one records PDP by using a Progress File (PF). Furthermore, the PF could also record the students' credentials and qualifications. As a result, PDP and PF will be introduced in this project in more depth later.

1.2.3 Employability in higher education

As knowledge-driven business increasingly appears in developed economies, employability is considered a competitive advantage. National prosperity is brought by acquiring the knowledge, skills and entrepreneurial zeal of the workforce (Brown et al., 2003). In a knowledge-driven economy, the employers need efficiency and justice depend on people upgrading their knowledge, skills and capabilities (DfEE, 2000; CBI, 2001). Moving on from the connection between higher education and economy, the higher education aspect of employability will now be introduced. Current research on employability starts at the use of simple measures, such as whether an individual has a

graduate level job or not and some scholars also mention employability in their work. If employability is simply measured in terms of whether a graduate has gained employment within six months of graduating (DLHE from HESA database), this is not able to provide a clear and precise indication of what the student has achieved. There are still questions about whether or not the graduate is using the skills, knowledge and understanding learned in their degree in a 'graduate level job', which in turn opens up a new debate about what exactly a 'graduate level job' entails. Here, the 'graduate level job' is described as closely linked to the programme; sometimes a job only requires a certain level of degree, not necessarily one linked to the degree programme. Gaining employment has much relevance to employability, and first destination statistics do not count because of the fact that some graduates may take lower level jobs in order to reduce financial pressures, particularly those who have taken loans for their studies. Hillage and Pollard (1998) suggest that: "In simple terms, employability is about being capable of getting and keeping fulfilling work. More comprehensively employability is the capability to move self-sufficiently within the market to realise potential through sustainable employment."

Although Hillage and Pollard wrote the report for the DfEE, UK, it is quite an obscure definition about how to determine what meets the standards of being fulfilling. In this study, the author expresses it means that the working hours of a job, in direct proportion to the payment are closely linked to the individual's subject at university.

Employability consists of four main elements. First of all, a person's 'employability assets', which includes their knowledge, skills and attitudes. Secondly, 'deployment', which refers to career management skills including job search skills. The third, 'presentation', is concerned with 'job getting skills', consisting of CV writing, work experience and interview techniques. The fourth, Hillage and Pollard (Hillage & Pollard, 1998) also explain is the importance of a person having the ability to manage

their 'employability assets' to the maximum, which largely depends on their personal circumstances (for example family responsibilities) and some other external factors (for example the current level of opportunity within the labour market).

Bennett, Dunne and Carré (1999) suggested course provision in higher education with a model that includes five components:

- Disciplinary content knowledge;

- Disciplinary skills;

- Generic skills;

- Workplace awareness;

- Workplace experience.

This model successfully included many of the necessary components to help a graduate in achieving employability, though there are some vital components still missing.

The USEM account of employability (Knight & Yorke, 2002; Yorke & Knight, 2006) perhaps is the most well-known and respected model in this area. This acronym in employability stands for four inter-related elements:

- Understanding;

- Skills;

- Efficacy beliefs, the students' self-theories and personal qualities – which are of critical importance to the extent that students feel they might 'be able to make a difference' (not every single time, but that is still possible);

- Metacognition.

The authors suggested there is something behind the USEM model:

An attempt to think about employability on a more scientific basis; part of the reason

for this is the need to appeal to academic staff on their own terms about this issue by referring to research evidence and theory (Yorke & Knight, 2006).

The USEM model forms a portion of a large amount of research-based scholarly work on employability. However, the strengths may also be regarded as a weakness; it does not assist in explaining to those who are not experts in the field, in particular the students themselves and their parents, what the term employability actually means.

The work of exploring effective solutions to enhance the future of the individuals has been researched by the Centre for Employability (CfE) at the University of Central Lancashire (UCLan) in the UK for nearly two decades (Paadi, 2014). Consequently, the careers service in this institution took the main theoretical model they originated, which has been underpinned by the services and is known as the DOTS model (Law & Watts, 1977), the content of which is the planned experiences specially designed to promote the development of:

- Decision learning – decision-making skills;
- Opportunity awareness – knowing what work opportunities exist and what their requirements are;
- Transition learning – including job searching and self-presenting skills;
- Self-awareness – in terms of interests, abilities, values, etc. (Watts 2006).

The value of this model relies on its simplicity, as it allows for the structuring of a significant complexity of career development learning into a manageable framework. However, some commentators critiqued this model recently. McCash (2006) warned that this model is too reliant on a rigid correspondence between person, geography and environment, underplaying other critical issues such as social and political contexts. He also indicated that the failure to secure a "self-fulfilling" occupation can be presented,

or experienced, as the fault of the individual who is not successful. These commentators underestimated the elegant simplicity of the accurate DOTS model (Pool & Sewell, 2007). It has proven enduring and popular. They also demonstrated that students who are introduced to the basic concepts of career development by using DOTS would be powerless in developing and learning about the more complicated analyses without this simple introductory structure.

The concerns about DOTS increased because of the different understandings of employability in the CfE (Centre for Employability at the University of Central Lancashire). It has become clear that the DOTS model has shortcomings when applied beyond careers education into a broader concept of employability. It has been reported by Hinchcliffe (2001) that an early effort to capture the CfE definition of employability was:

> Reflecting the range of views we see Peter Sewell of the CLASS Faculty Centre for Employability making the career development case and defining employability as: Having a set of skills, knowledge and personal attributes that make a person more likely to secure, and be successful in their chosen occupation.

A relatively recent version of this, which imported the important additional element of "satisfaction", originates from the recognition that from an individual's perspective a person probably can succeed in their chosen occupation but not necessarily be satisfied (Pool & Sewell, 2007): "Employability is having a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful."

This definition has been used as a starting point from which to develop another theoretical and practical framework for employability called "The Key to

Employability" model (Pool & Sewell, 2007) (see *Figure 1*).

It could be said that in addition to underpinning an understanding of the concept of employability, this model also provides a clear, visual answer to the simple question of what employability is. This has the benefit of not only articulating the concept of employability in a theoretically rigorous manner, but also doing so in a way that is easily accessible to both practitioners and students. The framework also opens up new opportunities for the development of assessment tools and research into the impact of various employability interventions. However, on the other hand, this model did not describe the employers wiliness to challenge them, gender, race, disability, etc.
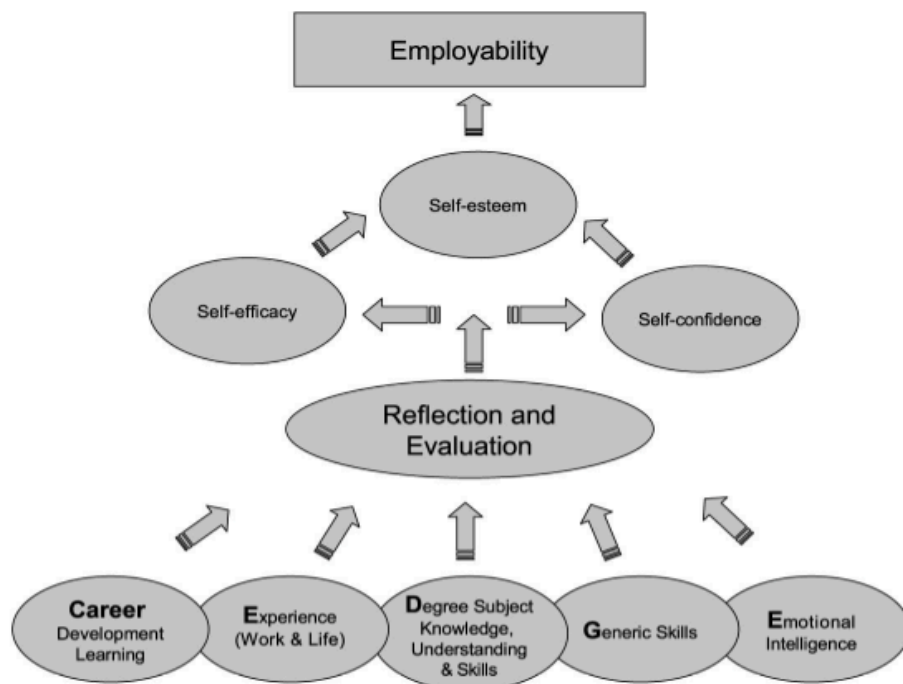
Figure 1 The essential components of employability (Pool & Sewell, 2007)

Figure 1 is the "The Key to Employability" model (the other name is CareerEDGE model) and is used as an aid to remember the five components on the lower tier of the model. It is suggested that providing students with opportunities to access and develop everything on this lower tier and for reflecting on and evaluating these experiences, will

result in development of higher levels of self-efficacy, self-confidence and self-esteem – the crucial links to employability.

1.2.4 Students' perceptions of future employability

As primary stakeholders, students are a necessary aspect of employability and have an important perspective of it. There is the opportunity to focus on the individual and situate relationships with the factors that are input to employability (Vanhercke et al., 2014). Unfortunately, there is not a single theory design to explain employability from the students' perceptive and there are very few examples of studies that explore employability from the students' perspective (sometimes seen as a 'missing perspective') (Gedye & Beaumont, 2018; Tymon, 2013), however many researchers have investigated the students' understanding. A study by Tomlinson (2007) divided such research into two aspects; one was employability, flexibilization, and individualization, and the other was positional competition and the changing role of credentials.

The view of the current labour market by higher education students who would soon be entering it was examined. There are a number of common features shown in their accounts. Firstly, student perceptions changed over time, the findings of the present study are quite different from findings on student approaches to work from two decades ago (Brown & Scase, 1994). It was found by Brown and Scase's (1994) study, that students prefer to hide their views around what they conventionally or stereotypically term the 'traditional bureaucratic' career. The students mainly held the expectation that they could progress to middle management careers in the short term in a single organisation where they would stay for a long period of their working lives (Brown & Scase, 1994). In these cases, students remaining in one particular job for the duration of their careers was viewed as being restrictive and limiting the development of

value-added skills (Tomlinson, 2007). Therefore, the issue of employability was not largely agreed upon by students who had already decided that they would gain payment in direct proportion to what they achieved in higher education once they entered the job market (DfES, 2004).

The results of more recent studies have indicated that different approaches to career progression depend on the current students. There was evidence showing that some students have idealised views, as previously discussed, while the majority of students realized there could be a much more difficult process of career progression (Tomlinson, 2007). For the most part, students appeared to know that the labour market is more and more flexible and has higher risk (Tomlinson, 2007). British HE students express their employability as competitive, measured by their exclusivity and distinction from other graduates (Tholen, 2014). Thus, students should adopt more flexible, adaptive approaches and possess generic knowledge and skills relevant to their careers, involving the active management of their own employability (Tholen, 2014). Gedye and Beaumont (2018) suggested that to be employable the crucial issues were job suitability, personal organisation and time management, and learning skills. The students understood that they had to improve and maintain their employability and additional skills and attributes in order to have successful careers (Tymon, 2013). Some students mentioned qualifications or credentials as being connected to employability, whereas for employers a degree has almost become a prerequisite to be considered employable (Brown et al., 2003).

The suggestion of evidence from Tomlinson's (2007) study was that few students expect their careers to be within the secure boundaries of a single job and organisation that would form the steps of their long-term career progression. The labour market was therefore constructed as supporting less protection, whereby employees would take a smooth and linear path (Rothwell, Herbert, & Rothwell, 2008; Rothwell, Jewell, &

Hardie, 2009). Some students saw movement between jobs and organisations as a necessary reality. This further involved the need to adapt through the development and management of their education credentials and work-related knowledge and skills (Wolf, 2011). To an extent, it came out that students are intentionally working to develop their skillsets during formal education in the new economy to make themselves standout in the job search. Whilst students knew the increasing flexibility is legitimate and, in some cases, is a crucial mode of career management, experience in different forms of employment would boost the development and renewal of knowledge and skills and, in turn, they would be increasingly confident and their graduate work profile would grow stronger over employability skills frameworks (Tomlinson, 2007; Tymon, 2013).

In another case, some students prefer to stay in an organisation for a long period and would have further development through strongly individualised experiences depending on their future employment (Tomlinson, 2007). Previous research into the transformations of young people has also drawn strongly individualised understandings of middle-class young people in understanding their labour market outcomes (Evans & Heinz, 1995). The problem of employability and career progression was largely viewed as an issue of labour market futures for individual graduates rather than something held in their own hands. Therefore, students tended to determine their development on elements relating to personal attributes, attitudes and personality in the labour market. However, these students often overlooked social and economic structures that might impact their opportunities and outcomes. In some cases, students also failed to notice structural factors that might affect employment outcomes, in particular gender, class and ethnicity (Tomlinson, 2008). Not only was it out of a sense of the changing performative demands of employers, but also the difficulties of securing graduate jobs.

Whilst, students do see their employability in terms that are absolute, the evidence also

suggests that they have to view themselves as competing in relative terms against other graduates with similar credentials and educational backgrounds (Tomlinson, 2007). Students in previous studies considered the current labour market for graduates as competitive and congested, and that they should understand their own interest, strengths and weaknesses as distinct one to another (Little & Arthur, 2010; Tholen, 2014; Tomlinson, 2007, 2008). Many students had formed the view that the labour market demands fewer graduates than the population left from universities, due to higher education participation expansion (Gedye & Beaumont, 2018). Large sections of higher education students were concerned about an inflationary rise in formal education, which would lead to their being of lower value in the labour market (Tomlinson, 2007). Students realised clear limitations in that their credentials and degree are the only hardware for their future employability. These students would underestimate the degree as a basic requirement in the hunt for graduate jobs and found their university degrees have little help during wage negotiation (Tholen & Brown, 2017). Thus, the students made effort in extra-curricular experience (alongside credentials) to distinguish themselves from other graduates with a high degree of self-location, in order to 'stand out' from the crowd (Brown & Hesketh, 2004; Tholen, 2014). There will always be clear evidence that some students attempt to enhance their credentials in order to receive a leading position in the labour market (Cook & Frank, 1993; Tomlinson, 2007, 2008; Tymon, 2013). This was reinforced by concerns that employers would be highly specific in demand for higher grades and university profiles when they recruit graduates (Tomlinson, 2008)； whereas employers increasingly need in a more customer focussed world (Archer & Davison, 2008). In order to earn better in future employment, the students still try to maximise the credentials around learning. This configured their approaches to study, far more than seeking key soft skills and qualities (introduced in section 1.5) around knowledge formation (Tomlinson, 2007).

Students were increasingly seeing the need to develop and package their credentials

(Charner, 1988) in a way to highlight their added value attributes. However, their formal achievements in higher education should be one part of their individual employability, but never the whole. In response to high graduate employment competition, they also perceived the need for 'experience', or what Brown and Hesketh term the 'economy of experience', in corresponding to the development of their employability (Brown & Hesketh, 2004; Gedye & Beaumont, 2018). They were considering the importance of packaging their employability into a personal statement that displayed their hard credentials, as well as their 'soft' value in terms of their personal and social skills, experience and achievements outside of formal higher education (Gedye & Beaumont, 2018; Tomlinson, 2007).

The students are increasingly developing a discourse of employability to add 'extra credential' value in their experiences and achievements outside their formal education (Gedye & Beaumont, 2018). However, students believe universities should teach relevant skills (Tholen & Brown, 2017). Additionally, the students considered the Curriculum Vitae as an important medium for projecting their acquisition of individual competence, skills and potential (Cotton, 2001) which represent the individual value and, as graduate employees, how they might transfer them into their potential and talent. This was considered crucial in the early stages of entering the labour market, particularly in the period of application and recruitment (Tomlinson, 2007). Therefore, the economy of experience highlights students' forecasted demand for developing an individualised employability statement to reflect individual attributes and achievements (Cassidy, 2006) in order to distinguish themselves in a competitive graduate market.

So far a number of common understandings and viewpoints have been explored (Gedye & Beaumont, 2018; Rothwell et al., 2008; Rothwell et al., 2009; Tomlinson, 2007, 2008; Tymon, 2013) on the students' side (both from pre-1992 and post-1992 universities) in

making sense of what is going on in the labour market for the highly qualified. At the same time, students view their employability as a measurement of their absolute potential currency in shaping their future employment (Tomlinson, 2008). It is also considered relative in the sense that they are positioned against, and competing against, other graduates with similar educational experiences (Brown et al., 2003; Tholen & Brown, 2017). The types of perspectives and attitudes that students develop around work and careers further circularly mediate them, in order to face the challenge from the labour market.

1.3 Personal Development Planning and its benefits

1.3.1 Overview

It is often questioned why students should participate in Personal Development Planning (PDP) (Cottrell, 2003). When students leave university, they should have a strong understanding of their programme discipline. (Cottrell, 2003). Pool and Sewell (2007) suggested that:

> Personal development planning (PDP) is a highly appropriate vehicle for reflection and evaluation in this context, and as all students are now entitled to PDP as part of their university experience, it should be relatively straightforward to ensure that it is used to full effect in developing employability.

There will be opportunities for the students to meet a wide range of people, to learn skills, to engage in new activities, to manage positions of responsibility and broaden their outlook while at university. Most of these opportunities are not part of the taught curriculum, though opportunities for developing skills, undertaking work experience, and taking part in voluntary and community work are included in some programmes.

Other than curriculum and extra curriculum activities, universities also encourage students to adopt a broad-based approach and to use their time imaginatively during their university experience. These activities are focused on skills and things that cannot be recorded in formal transcripts. However, there is challenge that students performed better in formal credit-bearing activities compared to a non-credit-bearing alternative (Kursun, 2016).

In the following sections, the background of PDP will be introduced in section 1.3.2. The definition shall be reviewed in section 1.3.3. In section 1.3.4, the motivation of the engagement of PDP – the benefits of PDP are going to be emphasised. The purpose and the formal requirements of the UK QAA for the term PDP are discussed in section 1.3.5.

1.3.2 The background of PDP

In 1997, the Dearing Enquiry suggested that Progress Files (PF) should be introduced to universities as "*a means by which students can monitor, build, and reflect upon their personal development*" (National Committee of Inquiry into Higher, 1997). Four years later, the Quality Assurance Agency (QAA) announced that all universities were expected to use the PF initiative to ensure students pursue personal planning throughout their time as undergraduates. The Progress Files are made up of two parts: personal development planning and the transcript; or three elements: personal development planning processes, student records that guide personal reflection and planning, and the formal university transcript.

The PFIG asserts that Progress File is centred by the processes of Personal Development Planning (PDP), and PDP is used to assure the most important aspects of the progress files are included. There are three concepts which PDP promotes (Cottrell,

2003):

- Personal development;
- Improving learning and performance;
- Forward planning to achieve goals (academic, personal or professional).

There are formal requirements for the universities to deliver PDP from the UK QAA (2009) as follows:

- Informing students about PDP when they first make contact and during all of their stages;
- Structured opportunities for reflection and PDP at each stage of university education should be provided;
- Encouraging students to record their personal progress to help reflection and future planning;
- Providing transcripts as formal records of achievement to assist students in their planning.

PDP is not just career planning, it refers to much more. It is about creating structured opportunities for students to develop a wider range of skills and personal qualities that can benefit them in the long term. The benefits could be reflected in life, work and study, and these might include several kinds of skills – inter-personal skills, problem solving, self-management skills and so on (Cottrell, 2003). These kinds of skills and personal qualities are most likely aspects of an individual's employability (Tamkin & Hillage, 1999).

1.3.3 What is Personal Development Planning?

A report from Jackson for the UK Higher Education Academy has been considered to provide the official definition for PDP in the UK (Jackson, 2001): "A structured and supported process undertaken by an individual to reflect upon their own learning, performance and/or achievement, and to plan for their personal, educational and career development." This definition confirms that the object should be the individual. The previous section mentioned that QAA required PDP for the student. Initially this is not at the individual's initiative. They need to have structured and supported process so, planning, management and reflection processes are necessary. To achieve the outcome the students must plan for personal educational and career development by learning and understanding their capacities, skills and behaviours. An extension of Jackson's theory (Jackson, 2001)argued that the primary objective for PDP is to improve the capacity of individuals to understand what and how they are learning, and to review, plan and take responsibility for their own learning, helping students to (Gough, Kiwan, Sutcliffe, Simpson, & Houghton, 2003):

- learn in a more effective, independent and confident self-directed way;
- have the understanding of how they are learning and relate their learning to a wider context;
- develop their general skills for study and career management during the learning progress;
- have clear personal goals and assess possible progress towards their achievement;
- have a positive attitude toward learning throughout life.

The Higher Education Academy (Yorke, 2006) suggests that the link between PDP and employability is very strong and that

PDP can help students to:

- plan, record and reflect upon their experiences in a way that develops their employment related skills and self-awareness;

- understand how their transferable skills might be applied in new settings;

- make realistic and suitable career plans based upon their heightened self-knowledge;

- demonstrate both their employment potential and their ability to manage their future professional development to employers.

Anecdotal evidence from Jackson in 2002 indicated that (Jackson, 2002): "PDP has the potential to assist in the delivery of key notional priorities, such as improving student retention; capacity for skill development; progress to employment and empowering individuals to remain employed." He then said something different in 2004 (Jackson, 2004):

PDP can be a place where teachers are less concerned with assessing students for competence, and more concerned with enabling them to enhance confidence, motivation and self-efficacy. The generic attributes are useful in all spheres of life. Here, Jackson detailed his personal development into confidence, motivation and self-efficacy.

In the summer of 2005, PDP and academic learning brought students to deep levels of understanding – about the learning and, in particular, about themselves in new learning contexts, whether personal academic or career-related (Kumar, 2005). This definition is more or less the same as Jackson's, but particularly emphasises new learning contexts. In which case, to learn something new is PDP for the students.

PDP is a generic term that covers a range of different component processes that can be

facilitated or self-directed and undertaken in different contexts for different aims. It is the responsibility of the individuals to plan their own learning, to act on that plan and to keep a record of their learning activities. When expressed as a set of actions and processes, PDP includes (Gough et al., 2003):

- Planning (how to achieve objectives or general change)
- Doing (learning through the experience of doing with greater awareness)
- Recording (thoughts, ideas, experiences, evidence of learning through writing, audio or video)
- Reviewing (reflections on what has happened, making sense of it all)
- Evaluating (making judgements about self and own work and determining what needs to be done to develop/improve/move on)

There are also many different related terms in use. They were listed by Jackson as follows (Jackson, 2002):

- Action-planning
- Improving own learning and performance
- Managing own learning
- Personal development planning
- Profiling
- Recording
- Records of achievement
- Reflection

PDP profiles are usually recorded by the accrediting bodies, namely universities in context of this research. The terms 'profiling' and 'records of achievement' are often interchanged. They have been explained as: "a process which involves students in

recording, reviewing and reflecting on their own experience, to turn into learning which empowers them to become more confident, self-aware and capable people" (Assiter & Shaw, 1993).

Several scholars from UAL explained the constructs of PDP as (Gough et al., 2003): "PDP is proxy for a number of constructs that attempt to connect and draw benefit from reflection, recording, action-planning and actually doing things that are aligned to the action plan."

PDP can morph into lifelong process of professional development which is been called continuing professional development (CPD) (Madden & Mitchell, 1993): "The maintenance and enhancement of knowledge, expertise and competence of professionals throughout their careers to a plan formulated with regard to the needs of the professional, the employer, the profession and society. "

The different variations on the concept of PDP above all agreed that it is the processes by the individuals to make a realistic plan for their future learning, personal qualities and career management, in using a record of a plan and achievement to reflect their own learning and performance.

A simple figure of the structure of PDP can be drawn as follows:
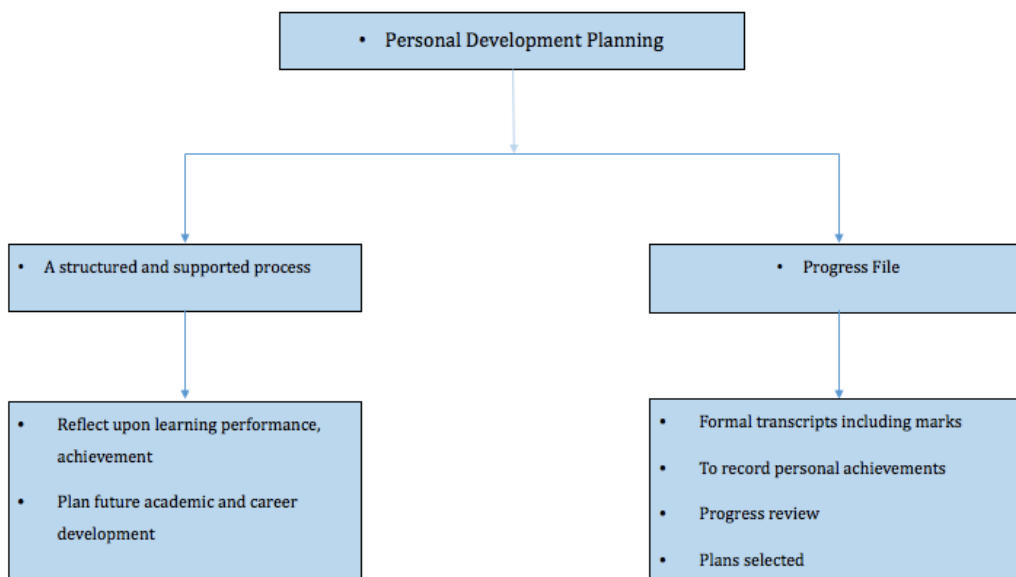
Figure 2 Structure of Personal Development Planning

PDP can then be defined by the researcher in a simple way; shown in *Figure 2*: Personal Development Planning is the process of using transcripts to review an individual's academic performance, personal and professional life and to then have a structured plan that supports of the recorded achievements.

1.3.4 Benefits of PDP

Jackson's (2001) definition clearly pointed out that PDP is a process for the individual to reflect on their learning to plan their personal, educational and career development. Consequently, the benefits of personal development planning for the individual are composed of three parts: academic performance, professional life and personal life.

When undertaking PDP in supported and structured ways the individual will have a much deeper understanding of their learning process. The ability to evaluate their own performance provides greater opportunity for them to improve, rather than rely on the

views of others. PDP provides the opportunity for the individuals to put themselves in charge, instead of learning in a routine cycle.

Cottrell listed the benefits of the personal development approach as follows (Cottrell, 2003):

- Benefits for academic performance

i.   A clearer focus to learning.

ii.   More control over personal motivation and the ability to achieve.

iii.   Developing essential skills in self-management.

iv.   Greater independence and confidence about oneself as a learner gaining better understanding of how to learn and how to improve performance.

v.   More enjoyment and less stress from learning as becoming consciously skilled.

vi.   More awareness of how to apply learning to new problems and contexts.

vii.   Reflective, strategic, analytical and creative thinking skills that strengthen the academic performance.

- Benefits for Professional life

i.   Gaining strategies for improving personal performance.

ii.   Gaining a much better sense of the kind of life and work you want.

iii.   Developing confidence in the choices you make.

iv.   Developing confidence in the skills, qualities and attributes you bring to the career of choice.

v.   Being in a better position to compete for jobs.

vi.   Being better able to discuss your skills and competences with employers.

vii.   Developing the positive attitudes, creative thinking and problem-solving approaches associated with successful professional life.

- Benefits for Personal life

i.   Gaining a better understanding of oneself and how to 'tick'.

ii.   Being in better position to make appropriate choices to meet aspirations.

iii.   Gaining a better sense of oneself as an individual.

iv.   Greater awareness of the needs and how to meet those.

v.   Greater awareness of the unique contribution one can make.

vi.   Developing a positive, forward-looking approach.

As in the lifelong CPD, Owen also listed the benefits of the professional approach as (Owen, Nolan, Venables, Curran, & Behi, 1998):

- Personal performance:

i. Sense of achievements

ii. Personal development

iii. Confidence, Assertive, Creative

- Personal (organisational) performance:

i. Meet organisational objectives

ii. Motivation/morale

iii. Recruit/ retain

iv. 'Corporate image'

v. Enquiring , Research aware

- Professional (individual) performance:

i. Enhanced career opportunities

ii. 'Open doors' – entre to 'new worlds'

iii. Lifelong learner

- Professional (interpersonal) performance:

i. Exchange of ideas

ii. Motivate colleagues

iii. Improved interdisciplinary working

- Professional performance:

i. Politically astute workforce

ii. Enhanced status

iii. Increased recognition

iv. More attractive profession.

1.3.5 Purposes of PDP

There are several different purposes and contexts for the use of PDP results. The results further evolve in emphasis on the terminology, definitions, and components of PDP type processes. Jackson et al. identified a number of curriculum responses to PDP (Jackson, Ward, & Rees-Jones, 2002):

- Curricula environments that are predominantly disciplinary in focus utilise four extra-curricular strategies to engage students in reflecting on, and recording, their own learning and their capacities to learn (i) support mechanisms with, for example, personal tutors; (ii) extra-curricular award frameworks to develop non-academic skills; (iii) external award frameworks to recognize non-curriculum learning; (iv) development of automated profiling tools.

- Disciplinary curricula environments also recognise non-disciplinary learning and incorporate reflective processes into skills-based curriculum units.

- In curricula environments where there is an explicit focus on skills and capability throughout the academic curriculum, PDP becomes an important sense making, progress-monitoring and development tool.

- The curriculum is constructed around a model of learning that has embedded within it principles of recording, reflection and planning.

- Trans-disciplinary curricula, such as foundation degrees involving negotiated work-based learning where reflective models of learning, recording and action planning are integral to the process.

- Part-time university study is undertaken in conjunction with employment in a programme developed by employers, universities, and professional bodies

working in partnership resulting in apprenticeship degrees.

There are many different ideas about how PDP is applied and included in these different approaches to PDP as follows:

- Knowledge acquisition versus self-regulation and development (Bennett et al., 1999);

- Tactical pieces of work versus strategic programmes of work (Jackson, 2002);

- Self-directed versus negotiated versus facilitated PDP (for example, negotiation in process of personal knowledge construction (Baillie, 2002));

- Institutional tool versus personal development (Paczuska & Turner, 1997);

- Means to an end versus process as product in its own right (A. G. Watts, 1992);

- Unstructured versus structured versus dialogue recording systems (Langer, 2002);

- Formal versus informal and incidental learning (Cseh, Watkins, & Marsick, 2000).

These distinctions lead in to the next section to discuss the necessity for progress files.

1.4 Progress files and their importance

Before the progress files were officially suggested by QAA, from the Department of Education and Science and Department of Employment emerged a major policy - National Record of Achievement (NRA) in England, 1991. It is a lifelong record of achievement in secondary education to support and structure self-development all throughout life. The NRA was not only recording achievements, but also initiated a range of other actions to help students develop their learning and skills and encourage them to plan for the future to keep improving. However, the process of NRA is as

simple as recording, although it is more similar to modern progress files. Furthermore, NRA also offered Modern Apprenticeships, National Traineeships and other training initiatives to all 16 year olds and others. And 87% of students leaving school would receive an NRA. In November 2002, the DfES announced that NRA was being removed in favour of an updated system known as the Progress Files (DfES, 2002). These joint statements form the central features for Personal Development Planning (East, 2005). Furthermore, Degree and Higher Level Apprenticeships (D&HLAs) also require students to maintain and submit their progress (Mulkeen, Abdou, Leigh, & Ward, 2019).

A similar system - Progress Files was developed in higher education by the recommendation of the National Committee of Inquiry in Higher Education. A focus of this was to assist students in managing and reflecting upon their personal development (NCIHE, 1997). The committee advised that the Progress Files should express the achievements of learning in higher education and support the students to identify learning as a lifelong activity. These Progress Files were to consist of three aspects.

- A formal transcript provided by the institution, usually in addition to a degree certificate in a common format. It records more information about learning and achievement than a traditional degree certificate.
- Personal records of learning and achievement, which may contain the individual's personal goals, plans, reviews and achievements in detail. This source of material is for the individuals to monitor their own progress. Furthermore, it is also helpful for job applications as there is certain material to select for personal statements.
- Personal Development Planning process, the Quality Assurance Agency for Higher Education considered PDP as the most important aspect of the Progress Files initiative (UKQAA, 2001).

The Higher Education Academy's guide aims to facilitate the PDP element of the Progress File to be implemented (Kumar, 2001).

The Progress File Implementation Group (representing Universities UK, The Standing Conference of Principals, the Quality Assurance Agency and the Higher Education Academy) set minimum outcomes of the Progress File, including (Kumar, 2001):

- Students should participate in PDP in a range of learning contexts at each stage or level of their programme;

- HEIs must ensure students are introduced to PDP, its rationale and benefits, including information on extra-curricular opportunities to develop skills and experience (e.g. in course handbooks, module or unit guides, or any other means considered appropriate);

- HEIs must assure themselves that PDP is being implemented effectively (Kumar, 2001).

From the above aspects, the following structure of PF can be made:
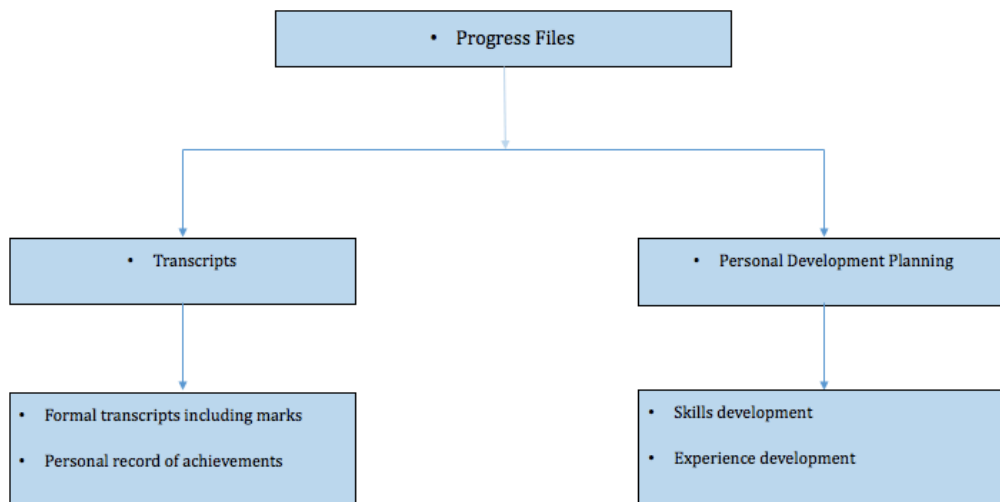
Figure 3 Structure of Progress Files

According to *Figure 3*, the definition of Progress Files is: Progress Files are the transcripts of record in marks, personal achievements, reviewed progress and selected plans to assist PDP in the future.

In recent years, a similar system referred to as a portfolio has been adopted. It contains more detailed information for employers than the standard resume, therefore students can develop and display their career employability more effectively (Shaidullina et al., 2015). The portfolio is a student-centred collection of summative assessment, demonstrating achievement, recording progress and setting targets – as in records of achievement and individual learning plans or to nurture a continuing process of personal development and reflective learning from formal and informal learning activities (Gibson, Coleman, & Irving, 2016; Gray, 2008). From the terminology, it is obvious Progress Files and portfolio share many common features.

1.5 Skill centred concepts of employability, Personal Development and Progress Files

Next, since the topic of employability is a major aspect of the literature review, to summarise it in short is necessary. The definition of employability used in this study is: the student gains proper employment in their chosen occupation and benefits from their skills, understanding, personal attributes, achievements and qualities.

Here, achievements consist of their formal degree certificates, qualifications, and formal transcripts including marks from HEI. The benefits could influence different aspects benefiting themselves, workforces, the community and the economy.

There is a major commonality in these three terms – the terms employability, Personal Development Planning and Progress Files – which is skills. Harvey states that

employability skills determine whether the individual can find a fulfilling job or not (Harvey, 2001). The purpose of Progress Files is to record the kinds of skills the individual already possesses. PDP is used for students to reflect upon their skills and achievements, in order to make future plans to develop themselves further.

There are two broad categories of skills learned by students during their academic career – technical and non-technical. Technical skills refer to subject-specific or content-specific knowledge and competence relevant to, or within, a particular discipline (e.g. information technology or psychology). Therefore, technical skills (vocational skills or job-specific skills (PIU, 2001)) are the skills necessary for competent functioning within a particular discipline. Non-technical skills are the skills which can be deemed relevant across many different occupations: employability skills are not job specific, but are skills that cut horizontally across all industries and vertically across all jobs from entry level to chief executive officer (Sherer & Eadie, 1987).

Because of their relevance to professional functioning, non-technical skills are commonly referred to as employability skills. Basic skills are included in the category employability skills and they include oral communication, reading, writing and arithmetic, higher order skills such as learning skills and strategies, problem solving, decision making, and affective skills and traits such as dependability and responsibility, a positive attitude, interpersonal skills (co-operation, team work), self-discipline and self-management and the ability to work without supervision (Cotton, 2001).

Therefore, employability skills can be demonstrated simply in the equation below:

Employability skills = Generic skills + Job-specific skills + Personal attributes

- Generic skills (key skills, soft skills) are the skills every individual should have. According to the British Council, generic skills are divided into 7 groups: computer skills, business management and development, communication skills, financial planning and management, human resource management, marketing and customer service, and project and contract management (Council, 2007). FTSE 100 companies suggest that teamwork, self-management, mathematical and ICT proficiency, analytical skills and commercial awareness are essential skills for employees. Job-specific skills: local functional skills, employer-wide skills, etc. (Unit, 2001).

Furthermore, to gain employment the student also needs appropriate knowledge and personal behaviours, attitudes and qualities. Important to recognise, students of different genders, ages, programmes of study and culture may rate the importance of employability and PDP quite differently.

1.6 Chinese students studying in the UK

1.6.1 Overview

The number of Chinese students studying in the UK has increased continuously. Chinese overseas students rank high quality education and international experience as two of the most important 'push' factors influencing their desire to pursue education abroad (Bodycott, 2009). The First Statistical Release from the Higher Education Statistics Agency (HESA, 2015) shows that the number of students from outside the European Union studying in the UK was 629,510 in the academic year 2016-17. The number of Chinese students in this group far exceeds any other nationality at 95,090, with a rise of more than eleven thousand students over the last four years.

In this part, culture's impact on different countries will be illustrated in 1.6.2. Cross-cultural teaching and learning are introduced in section 1.6.3. Followed by a comparison between Chinese and British students in section 1.6.4.

1.6.2 Culture's impact on different countries

The overall cultural environment of individuals' immediate social reference groups influences their motivation and decision-making (Engel, Blackwell, & Miniard, 1978; Moutinho, 1987; Reisinger & Turner, 2003). Culture is the sum of the shared attitudes, values and behaviour of a group (Morgan, 1996). It is the norms that enables the group to live together with less friction and conflict (Kaynak & Herbig, 2014). They serve to give a sense of shared identity distinguishing the group from others (Leavitt & Bahrami, 1988). Hofstede's (1980a) research on IBM employees from 53 countries identified four key elements in which national cultures differ from each other: power distance, uncertainty avoidance, individualism and masculinity. However, Hofstede also claimed the individuals' attitudes and behaviours can also be applied in other contexts such as politics and driving habits. The research of Hofstede conducted in the 1970s did not include the Chinese mainland. Chinese government at the time had a "closed door" policy that restricted education, commerce and information sharing with the rest of the world. The closest parallel for Chinese cultural environmental attitudes and behaviour were the scores for Hong Kong and Taiwan. His further research proved people from China had similar scores to the results for Hong Kong and Taiwan (Hofstede, 2003). China has an extremely low individuality score, attributed by Hofstede to the high level of emphasis on a collectivist society by the communist regime. This culture stresses strong relationships with family or other groups, sharing responsibility for each other (Xu, Morgan, & Song, 2009). The relationships with family are called Guanxi in China. In contrast, Hofstede describes that the British culture emphasizes the individuals' freedom to make their own decisions and pursue their own needs and self-development

(Hofstede, 1980a). In other contexts, cultural attitudes towards other people are also reflected in and shaped by the teachings of religion. The Protestant Christian tradition advocates individual responsibility and action, while opposing this, Confucianism adopts an emphasis on duty towards others and respect for authority (Xu et al., 2009). The basis link is shown in *Figure 4*:
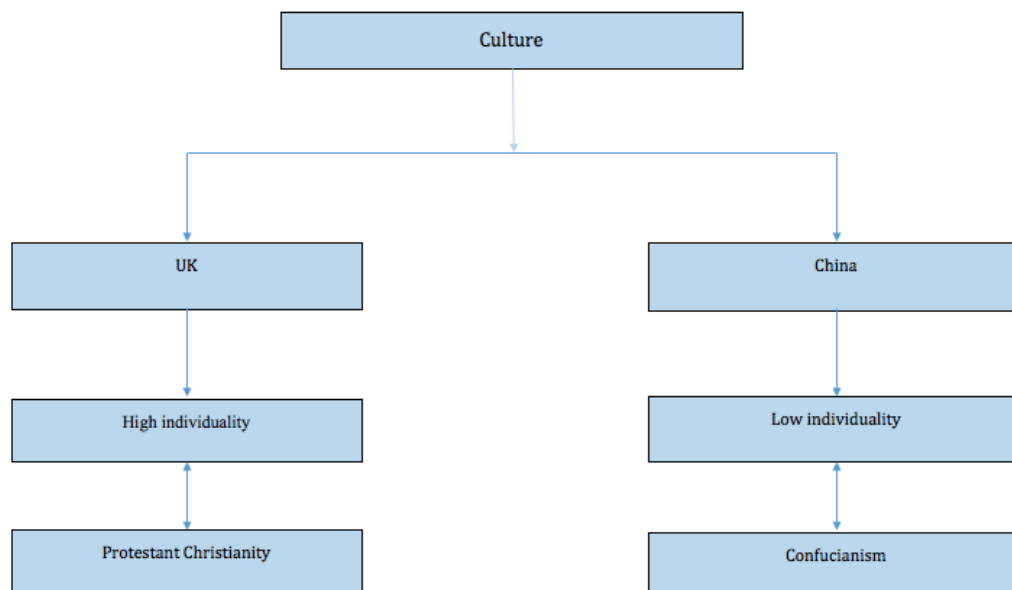
Figure 4 Culture tree of UK and China

1.6.3 Cross-cultural teaching and learning

The teaching and learning style or the education system comes as part of the culture in a country or an area. The interaction between teachers is influential; they consider their way of teaching as self-evidently normal and beneficial. Therefore, the learning culture has been set in a different way because of the cultural presuppositions. What is seen as natural and beneficial in one culture might be considered idiosyncratic, psychologically uncomfortable, and counter-intuitive in another, while another regards it as common sense (Turner, 2006). Hofstede demonstrated that a culture is established in correlation

with geographic, economic and social indicators (Hofstede, 1980b). The interaction between teacher and student archetypes is a human phenomenon, rooted in the culture of a society deeply; fundamentally, a problem for both parties is cross-cultural learning situations. The problems can be revealed in the following areas (Hofstede, 1986):

   i.   Differences in the social positions of teachers and students in the two societies;

   ii.   Differences in the relevance of the curriculum (training content) for the two societies;

  iii.   Differences in the profiles of cognitive abilities between the populations from which teacher and student are drawn;

  iv.   Differences in expected patterns of teacher/student and student/student interaction.

1.6.4 Comparison between Chinese students and British students

Most of Chinese students have common features (Turner, 2006), they are young, single and full-time students. Due to the education system of China, they are normally receptive learners; the typical learning mode is listening to teachers and studying privately. They usually study by reading and processing knowledge. They respond to teacher with obedience and their study relies on the teachers' direction. They are highly competitive with others in their cohort and strive to be the 'best'. In the classroom, questions are not an accepted norm; ideas and opinions are also not questioned. The defined discipline and boundaries are very strict for the learners (Watkins & Biggs, 1996). As a result Chinese students in Western universities do not question teachers, instead they simply follow the guidance from their lecturers (Turner, 2006).

As the 'host' country nationals, the British students are different. They are any age, and study through many patterns. Hard work is combined with natural ability. Unlike

Chinese students, the British students learn actively, they question often and participate vocally in class. This group of students thrives on solving problems. Independent thinking is always available when met with suggestions from teachers. They may seek to 'do one's best' rather than meet a pre-set standard. The critical stance is taken on knowledge and learning. The British students are learning in context and relating their learning to other aspects of life in a holistic manner (Turner, 2006).

The gaps between the two archetypes are clear, some structural and some deriving from intellectual and pedagogical issues. The motivations and orientation to work has been reflected upon in most aspects. Practically, potential differences in orientation to learning could be a reason for whether Chinese students succeed in UK Higher Education or not. Also, the effective support that is or is not received to help them understand implicit UK academic conventions could be an external influence (Turner, 2006).

1.7 Guanxi (people network)

The number of students from China in UK HEIs increases annually. At this stage, it requires PDP activities in UK universities shall not only be practical for British students, but also for international students, including Chinese students. In context with 1.6.2, China and the UK have very different cultures that may cause the students from both countries to think differently about the term PDP. The motivation and decision-making of engaging in PDP activities may vary. Seen in *Figure 4*, the low individuality suggests a particular phenomenon plays a significant role in Chinese society – Guanxi.

Chinese Guanxi is very different from Western Social Networks (WSN). Western social networks and Guanxi share some basic characteristics, such as mutual understanding, cooperative behaviour and long-term orientation (Wang, 2007). In WSNs such as 'old

boys' networks and cultural communities, although 'it is not what you know, it is who you know', the person must still be seen to be capable for a job role, whereas with Guanxi there is not necessarily the same requirement (Hammond & Glenn, 2004; Hoffman, 2011). They have quite different underlying mechanisms. 'Human' in China is not normally understood in the Western context as 'natural human', but instead as 'social human'. A network may be described (Easton & Axelsson, 1992) as: a model, or a metaphor which describes a number, usually a large number, of entities that are connected. But the Chinese concept of Guanxi is a form of social structure and provides security, trust and a prescribed role (Hammond & Glenn, 2004). It refers to the existence of direct particularistic ties between two or more individuals (Jacobs, 1979). The term Guanxi was defined by Luo (1997): "The Chinese word Guanxi refers to the concept of drawing on connections in order to secure favours in personal relations. It is an intimate and pervasive relational network in which Chinese culture energetically, subtly, and imaginatively engage."

The term Guanxi is an outcome under the heavy influence of Confucianism, Chinese usually view themselves interdependent with the surrounding social context, and it is the *"self in relation to other"* that becomes the focal individual experience (Tsui & Farh, 1997).

Chinese interpersonal relations have been categorised in three dimensions (see *Figure 5*): jia-ren (family members), shou-ren (familiar persons such as relatives outside the immediate family, neighbours or people in the same community, friends, colleagues, or classmates), and sheng-ren (mere acquaintances or strangers) (K. Yang, 1992). The jia-ren (family) relationship is characterized by almost permanent, stable, expressive relationships in which the other is part of one's duty. It is only the blood relatives. The general principle of exchange is that one must do his/her best to attend to the other's need with no or little expectation of return in the future (Tsui & Farh, 1997). The

kinship Guanxi relies on strong family identification and role obligation. It is therefore the family relationship is one of the most important in the three categories.
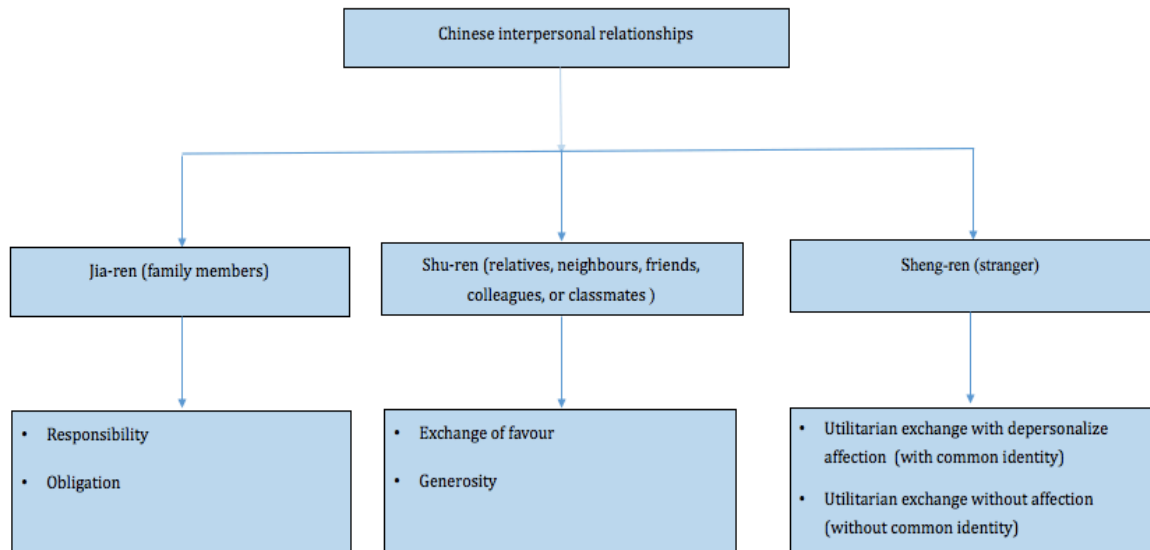
Figure 5 Structure of Chinese interpersonal relationships

There is a description, perhaps the easiest for Westerners to understand, provided by an American executive (MacInnis, 1993):

To Chinese managers, Guanxi is laden with powerful implications. To "la Guanxi" (literally to "pull" Guanxi) means to get on the good side of someone, to store political capital with them, and carries no negative overtones. To "gua Guanxi"(literally to "work on" Guanxi) means roughly the same but with a more general, less intensive feeling and usually carries negative overtones. "Meiyou Guanxi" ("without" Guanxi) has become an idiom meaning "it doesn't matter." "Guanxi gao jiang" (Guanxi ruined) means the relationship has gone bad, usually because of a lack of flexibility of those involved. "Lishun Guanxi" ("straighten out" Guanxi) means to put a Guanxi back into proper or normal order, often after a period of difficulty or awkwardness. "You Guanxi" ("to have" Guanxi) [which is utterly unlike the American idiom "to have a relationship"],

means to have access to needed influence. "Youdeshi Guanxi" ("what one does have" or "the one thing one does have" is Guanxi), is sometimes negative, meaning that one has all the Guanxi one needs, but something else essential is lacking. "Guanxi wang" ("Guanxi net") means the whole network of Guanxi through which influence is brokered. "Guanxi hu" ("Guanxi family") means a person, organization, even government department, occupying a focal point in one's Guanxi network.

Universality (rules applying equally to all) is considered as a key feature of Western societies. However, particularism (relationships as more important than rules) is considered part of Chinese culture (Hampden-Turner & Trompenaars, 2008). It is sure that Guanxi is changing with the forces of globalization, but will transform to another source of order and stability (Hammond & Glenn, 2004).

In a paper written by Guan in 2011 of the name "Guanxi: The Key to Achieving Success in China", a case involving Lai is considered to be the biggest economic crime in the history of the P. R. China (CCTV, 1999) by using Guanxi in every possible area. In China, if one has the right Guanxi, there is little that cannot get accomplished, even if it is technically against the rules (Guan, 2011). On the other hand, if one does not have Guanxi, one's life is likely to be a series of long lines, tightly closed doors, and a maze of administrative and bureaucratic hassles (Seligman, 2008). "Guanxi seems to be the lifeblood of the Chinese business community, extending into politics and society."(Davies, Leung, Luk, & Wong, 1995) Without Guanxi it is less possible to get one simple thing done. Western managers found that things can be done without Guanxi if one invests enormous personal energy. That will be more likely to offend close friends and trusted associates, and even such pyrrhic victories need to be prepared. On the other hand, with Guanxi anything seems possible (Davies et al., 1995). Previous research of Guanxi is mainly conducted in the business context (Luo, 2007; Tsang, 1998; Yeung & Tung, 1996). Very limited studies have dealt with this topic in relation

to gender, mode of study or level of study.

In the conclusion of Guan's paper (Guan, 2011), she summarised Guanxi:

- Proper understanding and application of Guanxi can transform one's life;

- Guanxi can be developed through personal efforts, without the need for a powerful family behind one;

- The best way to establish Guanxi is through identifying and satisfying the other party's greatest needs.

Although Guanxi may play a negative role, it is led by cultural and political reasons. It is the factor in Chinese history caused by Confucian values for thousands of years. On the other hand, the Western social network theory indicated that Guanxi is not a specific approach, there are emergent social networks that are partially visible wherever there are human cultures, particularist or universalist (Hammond & Glenn, 2004).

In the case of gaining employment, if the individual has proper Guanxi, they will be better positioned, especially in consideration of whether the student is considered 'qualified' for a job role, and as such this student can have less employability skills than others and still gain employment. Here, Hypothesis 1 (H1) emerges:
Chinese students studying in the UK have less need to engage in PDP in the UK than UK students at the same stage of their education who intend to gain employment in the UK.

Two sub-hypotheses from the hypothesis before:

- Chinese students studying in the UK who have Guanxi at home which can support them in China for getting an employment, and intend to get an employment in the

UK after graduation have less need to engage in PDP in the UK than Chinese students who do not have Guanxi at the same stage of their education.

- Chinese students studying in the UK who have Guanxi at home who have Guanxi support in the UK or other countries for getting an employment, and intend to get an employment in the UK or other countries after graduation have statistically significant different need to engage in PDP as the Chinese students who do not have Guanxi at the same stage of their education.

1.8 Other influences on engagement with PDP activities

Apart from nationality, the existing literature suggests some notable differences between male and female students (Venkatesh, Morris, & Ackerman, 2000) on decision-making processes. Some education experts have discussed the idea that part time students have less opportunities for personal development from universities than full time students because they are splitting their time between two social domains (Moro-Egido & Panades, 2010). Lindsay, Breen and Jenkins (2002) identified differences between undergraduate and postgraduate students with respect to their learning process where undergraduates tend to be involved in research activities more and postgraduates criticise where research should be more interesting, relevant or focussed. Students demonstrated a narrower view of employability than that observed in the wider literature, particularly among first and second-year students (Tymon, 2013). The way students behave when seeking information suggests differences between earlier and final year students (Callinan, 2005). Differences in the employment scene between vocationally orientated programmes in the Science areas may also have a bearing on the attitude towards engagement in PDP as compared to students in the Social Science and Arts and Humanities subjects. The present research is also

interested in understanding other potential influences such as the subject students are studying, their existing post-graduation employment arrangements and any previous employment experience. Prior employment history have advantage to secure employment after graduating (Woodfield, 2011). Most employers considered that it was important for graduates to have some work experience to adapt to the new work environment (Hodges & Burchell, 2003). In correspondence of these statements, a series of hypotheses as follows:

2. The number of female students engage in PDP is higher than the number of male students proportionately.

3. Part time students have less need to engage in PDP activities than full time students.

4. Science students do not have less need to engage in PDP activities than other students.

5. Undergraduate students do not have less need to engage in PDP activities than postgraduate students.

6. Students who are in their year of graduation have more need to engage in PDP than students in earlier years.

7. Students who have employment arranged after graduation do not have less need to engage in PDP than students who have no arranged employment after graduation.

8. Students in the UK who have prior employment do not have less need to engage in PDP than the students who have not been employed.

1.9 Chapter summary

This chapter led an examination of the research field, step by step. It explored the historical literature of employability from Gazier's research then introduced a summary of different definitions of employability from work completed in the two most recent decades. Specifically, it was presented that the connection between higher education and economy pushes students in higher education to develop employability due to human capital economy. The UK government has advised that universities are responsible for students' employability and that the students should develop employability skills through Personal Development Planning and must record what they achieved using the Progress Files scheme. Both PDP and Progress Files serve and benefit the students in developing employability skills.

Next this chapter defined Chinese students as differing from British students in a variety of ways including: culture, learning mode and social network. Other differences were also listed, such as: gender, mode of study, subject of study, level of study, etc. The research object naturally unfolded to explore the potential effect of students' engagement for PDP activities in correlation with employability skills.

Chapter 2 Methodology

2.1 Overview

This chapter introduces the research methods applied in this thesis in detail. This chapter first introduces the philosophical assumption of this study, and then expands upon quantitative research as a scientific method that is suitable for hypotheses testing. Following that, the research design method and the sampling methods, supported by the theory, are explained. Then the research tools, timing and process are stated followed by details of proposed data analysis. Finally, the contribution, assumptions, limitations and scope are described.

2.2 Philosophical Assumption

The philosophical assumption is the foundation of academic research (Annells, 1996), it addresses the ontological and epistemological philosophy behind the study. Schembri suggested ontological realism constructs the experience of historical performances, processes or outcomes (Schembri, 2006). Likewise, in ontology, it is believed that all sources of experience are objects that confirm realism (Prahalad & Ramaswamy, 2000). Epistemology is to understand human nature in the social world that is acquired by conducting research to capture and interpret the complex and ever changing social world (Gray, 2013). It introduces philosophy that relies on the nature of knowledge about reality and how to capture it (Burrell & Morgan, 1979). The potential philosophical assumptions of a study establishes the background used for coming to conclusions or decisions (Dazeley, 2015). The present study is based on the ontological perspective of the objective reality; this independently structures the existing

knowledge. This study combines existing phenomena and processes with the external intervention perception. The thesis further upholds the epistemological perspective in that the knowledge of reality is driven by the perception of social understanding. Employability research based on personal development planning is a phenomenon that involves the intervention of the individual student, the higher education institutions and other higher education sectors. This particularly requires the generalised results that describe the concept in HE sectors. Quantitative and qualitative research programmes claim different philosophical perspectives, and deal with different underlying assumptions (Castellan, 2010). Quantitative research identifies with the positivistic belief "that physical and social reality is independent of those who observe it" (Gall, Borg, & Gall, 1996). Quantitative researchers believe that an objective reality is "out there to be discovered" (Krathwohl, 1998) and the researcher should be independent of what is researched (Creswell, 1994). In order to identify the approach of employability combined with the comparison of different groups of students, quantitative research is especially suited for collecting and investigating the situation followed by statistical tests and an interpretation of the results (Creswell, 2013).

2.3 Quantitative research as a scientific method

In general, early literature agrees that quantitative research is an accepted method for gathering and analysing data that is relevant to the hypotheses. It is appropriate for finding the extension of variation and diversity in social life (Kumar, 2011). Since the research objective of this thesis is built with several hypotheses, using a quantitative design to focus on measuring the magnitude of variation is suitable.

"Quantitative research is the systematic empirical investigation of observable phenomena by using statistical, mathematical or computational techniques" (Given, 2008). It is described as the traditional scientific approach to research and has its

underpinnings in the philosophical paradigm for human inquiry known as positivism (Hungler & Polit, 1999). Quantitative research is a "systematic and methodological process" of research driven by the positivist tradition (Koch & Harrington, 1998). This approach of quantitative research is an objective, formal, systematic process in which numerical data are used to quantify or measure phenomena and produce findings (Carr, 1994). It describes, tests and examines cause and effect relationships (Grove, 1987), using a deductive process of knowledge attainment (Duffy, 1985). Quantitative methodologies are particularly suited for testing deductively from existing knowledge through developing hypothesized relationships and proposed outcomes for study (Carr, 1994). Quantitative research aims to gather numerical data and generalise it across groups of people (questionnaires are often used to collect this sort of data). It is more objective and scientific than qualitative research. It involves the implication that what is being researched can be quantified and measured (Lancaster, 2005). Theoretically, "qualitative studies are characterised by an emphasis on describing, undertaking and exploring phenomena using categorical and subjective measurement procedures, construction of hypotheses is neither advocated nor practised"(Kumar, 2011). In particular, there is a specific need for testing a hypothesis and if it is deliberately not adhered to the qualitative research becomes difficult and meaningless for the testing of that hypothesis (Kumar, 2011). According to Lancaster (2005), qualitative research is more subjective and involves information that cannot be numerically analysed.

Moreover, quantitative research relies on the fact that what is being measured can be measured and quantified meaningfully and reliably. Therefore, choosing quantitative research as the plan for proving a hypothesis is relatively better than qualitative research, at this stage. The target population and sample size will describe in latter section. Ghosh and Chopra (2003) described that using quantitative research is number-based or can be expressed numerically as well as classified by some numerical value.

Quantitative research is used when the researcher desires to obtain entire trends or statistical truth from the research (Hara, 1995). It is explained that quantitative research adopts three levels: descriptive, correlational and causal referring to the experiment as a research design (Parahoo, 2014). In this thesis, natural experimental research is going to be applied. The first stage of more complex designs may be formed by the characteristics of individuals, groups or situations (Jack & Clarke, 1998). Generally, this design intends to "discover new meaning, describe what exists, determine the frequency with which something occurs and categorize information" (Burns & Grove, 1999).

As this research method is based on statistical support, normally the researchers can expect the result to be unbiased. In this case it also can be generalised to large populations. Quantitative study designs are specific, well structured, have been tested for their validity and reliability, and can be explicitly defined and recognised (Kumar, 2011). On the other hand, qualitative research collects information about a phenomenon or participant by asking broad questions and collecting verbal or textual data. It produces hypotheses through information collected in a particular case study, but quantitative research is able to prove these hypotheses true or not by gathering and analysing data (Kaplan & Duchon, 1988). Additionally, a comprehensive analysis of 1274 articles published in the top two American sociology journals between 1935 and 2005 found that roughly two thirds of these articles used quantitative methods (Hunter & Leahey, 2008), which suggests that quantitative research is used more broadly than qualitative research methods in this field.

2.4 Research design in this study

Quantitative studies can usually be classified by examining them from three different perspectives (Kumar, 2011):

- The number of contacts with the study population which determines the sample size;
- The reference period of study;
- The nature of the investigation.

2.4.1 Study designs based on the number of contacts

Based on the number of contacts with the study population, designs can be categorised into three groups:

- Cross-sectional studies: contact with the study population once;
- Before-and-after studies: contact with the study population twice;
- Longitudinal studies: contact with the study population three times or more.

In this research study a cross-sectional design is applied. The data set to be conducted once – the purpose of the study is descriptive, often in the form of a survey. Usually the aim is to describe a population or a subgroup within the population with respect to a phenomenon, situation, problem, attitude or issue (Babbie, 1989; Levin, 2006). In this case, it is appropriate to identify the study population and contact the respondents to find out the required information (Kumar, 2011).

The cross-sectional design is used to test the perception that an individual student engages in PDP activities. Also shown are the ways that the individual student engaged in those activities. The differences in the person's perspective about employability over the course of the academic programme are also suggested.

2.4.2 Study designs based on the reference period

The reference period refers to the time frame in which a study exploring a phenomenon, situation, event or problem is examined. Studies from this perspective are classified as:

- Retrospective: investigate a phenomenon, situation, problem or issue that has happened in the past;
- Prospective: refer to the likely prevalence of a phenomenon, situation, problem, attitude or outcome in the future;
- Retrospective – Prospective: focus on the past trends in a phenomenon and study it into the future.

The prospective study refers to the likely prevalence of a phenomenon, situation, problem, attitude or outcome in the future. This kind of study attempts to establish the outcome or what is likely to happen (Colditz, Burdick, & Mosteller, 1995).

2.4.3 Study designs based on the nature of the investigation

The study designs in quantitative research depend on the nature of the investigation and can be classified into: experimental, non-experimental, and quasi- or semi-experimental (Roberts, 2002).

In this thesis, the study starts from the cause to establish the effects and is considered experimental. Experimental study designs have so many types; most commonly used in social sciences, the humanities, public health, marketing, education, epidemiology, social work, etc., the designs have been categorised as: the after-only experimental design; the before-and-after experimental design; the control group design; the double-control design; the comparative design; the 'matched control' experimental

design; and the placebo design (Kumar, 2011).

As this study has two groups of people, the UK students in HEI are determined as a control group, and the Chinese students studying in the UK as the experimental group. This study also combines with the control group design, the author considers these two groups of students who all study in the same environment currently with the difference between them is the culture (see 1.6.2). In this way, Hypothesis 1 could be tested in every respect except the intervention. The experimental group is exposed to the intervention, whereas the control group is not.

However, the above is one of the ways to make comparable groups. From the gender question, the proportional population of female and male students who engaged in PDP can be easily found; as a result, testing Hypothesis 2 is feasible. The mode of study separated the students to full-time and part-time in order to test Hypothesis 3. According to HESA, the students can be divided into science students or others, so Hypothesis 4 is easy to prove. The level of study could impact the motivation of engaging in PDP activities, therefore it is necessary to examine postgraduate and undergraduate students' perceptions for Hypothesis 5. Then, from the self-reported grade of study programme, the answer of whether the students are in their year of graduation or not can be found, hence the two groups are valid for Hypothesis 6. A question is asked for future employment arrangements and can prove Hypothesis 7. Self-reported prior employment divided the students into two groups: the students who had prior employment and the students who did not. Therefore, Hypothesis 8 is testable. Questions are produced primarily based upon the logical link with the research objects of the study in order to ascertain the concept of validity.

2.5 Samples in this study

The sampling for this study considers students from different backgrounds. First, the students from different cultures should be randomly sampled. To prove research object Hypothesis 1, the target population was defined as:

- All British students who study in the UK HEIs;
- All Chinese students who study in the UK HEIs.

The samples were randomly picked from all respondents to the quantitative instrument. To ensure its randomness, the simple principle was applied in this study, meaning as soon as the number of valid students' responses in this research reached the desired sample size, the data collection process was considered as complete. The sample size was introduced in Table 3 to Table 6.

The group of UK students is the control group, and the other group, Chinese students studying in the UK, is the experimental group, because the differentiation during the experiment is considered as the different cultures (see section 1.6.2). In this way, there is a logical link to research object Hypothesis 1, and the establishment of this link is called face validity (Kumar, 2011).

After these groups are confirmed, the inclusion of the student groups consisting of different genders, ages, modes of study, programmes of study, levels of study, year of graduation, those who have employment arranged after graduation, and those with prior employment experience, which will be mentioned to test the research objectives.

The data from HESA shows the total population of UK and Chinese student. The proportion of students is also given, based on a confidence level of 95% and margin of

error of 5%. In fact, Krejcie and Morgan (1970) suggested that as the population increases the sample size required increases at a diminishing rate and remains relatively constant at slightly more than 380 cases. The sample size of this study is calculated as below:

UK group: Total UK students (2014-15): 1,829,195; total sample size: 385.

UK students' sampling: Science: 43%   Other: 57%

                                      Female: 56%   Male: 44%

                                      Postgraduate: 24%   Undergraduate: 76%

Postgraduate	Science	Other	Total
Female	22	28	50
Male	17	23	40
Total	39	51	90

Table 3 UK Postgraduate sample

Undergraduate	Science	Other	Total
Female	71	94	165
Male	56	74	130
Total	127	168	295

Table 4 UK Undergraduate sample

Chinese group: Total Chinese students studying in UK (2014-15): 89,540; total sample size: 383.

Chinese students' sampling: Science: 37%   Other: 63%

                                                          Female: 56%   Male: 44%

                                                          Postgraduate: 52%   Undergraduate: 48%

Postgraduate	Science	Other	Total
Female	41	70	111
Male	33	55	88
Total	74	125	199

Table 5 Chinese postgraduate sample

Undergraduate	Science	Other	Total
Female	36	65	103
Male	30	51	81
Total	68	116	184

Table 6 Chinese undergraduate sample

Professor Rebecca Hughes, British Council Director of Education, commented "In England, three quarters of all full-time taught Masters students are now from overseas and some courses rely for their sustainability on the international student intakes. In science, technology, engineering and mathematics, more than half (52%) of full-time MPhil and PhD students are from overseas." (Malik, 2014) During the academic year 2012-13 there were 83,790 (HESA, 2015) Chinese students in the UK where approximately 49,000 were postgraduates (Malik, 2014). Therefore, the sample size of Chinese students who study in the UK have proportionally larger numbers in

postgraduate programmes rather than who study in undergraduate programmes. It is necessary to approximate the number of sampled British students to the size of the Chinese group in each stage of their study programme.

Pilot studies are mini versions of a full-scale study (also called 'feasibility' studies), they also specifically pre-test a particular research instrument such as a questionnaire or interview schedule (Baker, 1994; Polit & Beck, 2006). Conducting a pilot study does not guarantee success in the main study, but it might give advance warning about where the main research project could fail, where research protocols may not be followed, or whether proposed methods or instruments are inappropriate or too complicated (De Vaus, 2013). However, research papers only report one element of pilot study, for example 'pre-testing', 'pilot testing' or 'the questionnaire was tested for validity and reliability'.

In this thesis, a pilot study of ten students was conducted to test the questionnaire. It is a paper version and not nice (see Appendix 1). These ten students included those from different disciplines and at different universities to better reflect the total population.

2.6 Research tool and methods for data collection

The data for this study was collected through a one-off questionnaire that targeted Chinese students studying in the UK as well as UK local students. The following sections provides detail on data collection methods and theoretical support for the information obtained from these data sources. Lastly, the principle ethics involved in this research are explained.

2.6.1 Theoretical support for collecting data

In this study, a well-structured questionnaire is used to collect data. A questionnaire is a research instrument consisting of a list of questions and the results are recorded as the respondents answer (Wilkinson & Birmingham, 2003). In a questionnaire, the respondents read the questions, interpret what is expected and then provide answers. It is easy to collect good-quality numerical data through questionnaires (Velikova et al., 1999). It is appropriate in this research as quantitative research requires numerical data. Another reason for choosing questionnaires is the speed, low cost (Sekaran, 2003) and greater anonymity (Willett & Page, 1996). Before the questionnaire was triggered, there was a pilot study (see section 2.5), and there were seven informal interviews prior to the first version of questionnaire as a pre-pilot procedure. It is essential to use this procedure to help identify the ambiguities in the questions, potential problems and to identify a range of possible responses for each question (Williams, 2003).

Since there is no one to explain the meaning of questions to respondents, the questionnaire is required to be designed as follows (R. Kumar, 2011):

- The questions should be clear and easy to understand.
- The layout should be easy to read and the sequence of questions should be easy to follow.
- The style should be interactive. (This means respondents should feel as if someone is talking to them)
- A sensitive question should be prefaced by an interactive statement explaining the relevance of the question.
- A different font for statements to distinguish the respondents' data from the actual questions is recommended.

Using a different font to deliver the actual question is rather important in the modification of the questionnaire in this research. Chinese people may prefer not to

answer precisely to some sensitive questions, which is particularly because they have been profoundly influenced by Confucianism for thousands of years. A major principle from the Doctrine of the Mean (or the Golden Mean, Chinese pinyin 'zhongyong', one of the Four Books) suggests that (Konfucius, Mencius, & Legge, 1961) people should be moderate in everything. There is an old saying in China that translates in English 'to stick your neck out'. In other words, when facing a sensitive question, they are more likely not to give extreme answers; this is a kind of protection by hiding the truth in spite of oneself. Consequently to gather data relying on the actual question to be self-reported might not be effective in this case; but employing an anonymous questionnaire might minimise this situation, although most of the differences are not statistically significant (Evans, Hawton, Rodham, Psychol, & Deeks, 2005). Completing a questionnaire is quite straightforward, a self-report questionnaire is consider as few time-consuming, serving as an added benefit for both assessors and subjects alike (Black & Wilson, 1996; Decaluwé & Braet, 2004). In recognition of possible Doctrine of the Mean influences, the researcher determined that there should not be a neutral option in the Likert scales for respondents. This was particularly important to validate the answers to the questions that would distinguish the nationality of respondents, forcing all to clearly take their own standpoint.

2.6.2 Preparation and process of data collection

After-only experimental design: it has been described that this study will collect data in one round. The test is to investigate the needs for personal development planning to think about looking for an employment in an academic programme; the difference between UK students and Chinese students who study in the UK are also comparable at this stage. The difference will be considered as the culture effect (see section 1.6.2), and Guanxi as a Chinese philosophy of life (Xing, 1995) certainly plays a role in this effect.

The control group design: it has been decided that there will be two groups of participants with the UK students as the control group and Chinese students who study in the UK as the experimental group. It is easy to make comparisons between students who are from two different cultures and study in the same environment. The needs of PDP activities are assumed to be different for the two groups. The data will show the difference of these two groups of students in their needs in looking for a job and, at the same time, it will partly reflect the impact of Guanxi on the Chinese students' group. Additionally, it may investigate whether the UK students use their personal networks during their job hunting.

Preparation of data collection: experimental data is collected through an online questionnaire. The questions in the survey have been considered and revised several times so that the questionnaire is well structured. The questions begin with personal circumstances and background, then PDP activities completed in the past, how spare time is spent and perceptions of the labour market, ending with future PDP engagement plans. The variables were coded before being piloted. Lastly, it was decided the questionnaire was administered on Qualtrics.

The tool chosen to analyse the downloaded results from the questionnaire was SPSS. A personal computer and the Internet were used to gather the data for this process. Additionally, when the questionnaire was first released there were few participants. With the help of Chinese Students and Scholars Association (CSSA) enough Chinese students data was collected since they could easily forward the questionnaire to Chinese students in the UK universities. However, the admissions departments in UK HEIs which were targeted to help recruit UK participants were not as helpful, so the researcher had to use a paid service from Qualtrics to expand the survey's reach to collected data from a larger sample, as required. From this Qualtrics service, the respondents geographically spread all over the UK, which reduced the possible bias

(see *Figure 6*).

2.6.3 Principle ethics involved in this research

This research project was approved by the Physics Science Ethics Committee (PSEC) at the University of York. In carrying out the one-shot questionnaire, there are certain ethical issues that might arise and will, therefore, need addressing. Two of the key ethical areas are confidentiality and informed consent. To address these, a 'consent form' was prepared (See Appendix 3) that explained the purpose of the questionnaire to the students and that their identities would be anonymized in any form of publication on the research, including this thesis. At the beginning of the questionnaire the purposes of this study were introduced to the participants. The full questionnaire was sent to the PSEC along with the 'application form' for ethical proof with the reference number Ji110516.

The approved questionnaire was uploaded to Qualtrics, as suggested by the University of York. The students who participated in this research could easily answer the questions in this survey from a PC, laptop, tablet or smart phones.

Another ethical area is storage of the data and the participants needed to be informed of how and where their data would be stored. This point was also covered by the consent form. In this study, the data collected was stored offline in the researcher's personal memory disk, which ensures data security and privacy. These data will be destroyed two years after the PhD is completed. As highlighted earlier, all the information associated with participating students has been anonymized without using names or student numbers.

2.7 Data analysis procedures

This research intends to explore, for students studying in the same environment, how their needs for PDP activities vary due to their different backgrounds. To fulfil this aim, quantitative methodology was adopted. Following the discussion of how to build the data collection instrument, namely, questionnaires, in this study, this section will focus on the reliability and validity considerations.

2.7.1 Explain units of analysis

The unit of analysis is of fundamental importance for this research. According to (Barratt, Choi, & Li, 2011), the unit of analysis provides knowledge and boundaries for a research programme. However, there may be one or more unit of analysis in a research project, as suggested by (Yin, 2003). Therefore, it is necessary to explain what units were used in the current study.

In this research, there are three kinds of unit. A student who studies in the UK HEI is the individual unit.

In this research, there are 3 kinds of units. Firstly, a student who studies in the UK HEI is the individual unit.

Secondly, group units is adopted. They are:

- UK students and Chinese students who study in the UK;

- Female students and male students;

- Full-time students and part-time students;

- Science students and other students;

- Undergraduate students and postgraduate students;

- Final-year students and early-year students;

- Students who have employment arranged for after graduation and students who do

not have employment arranged for after graduation;

- Students with an employment history and students without an employment history.

Social organization is the third type of unit is also meaningful in this study. They are departments in the UK universities and UK HEIs.

This research project focused on students' engagement in personal development planning activities in UK HEIs. Although British students and Chinese overseas students are studying in the same environment, they may have different needs in this aspect. Cultural differences may be the main cause of this phenomenon. It is well-known that Chinese students tend to use Guanxi (personal network) in PDP planning. The researcher believes that students' motivation is obtained through their ways of engagement. To explore the possible methods to encourage students' engagement in PDP activities, the present study has adopted the following unit of analysis:

i.   The comparison of the need for PDP activities between UK students and Chinese students who study in the UK;

ii. The importance of PDP between students of different backgrounds (e.g. gender, age, mode of study, subject of study, level of study and so on);

iii. The effect of Guanxi to look for employment for Chinese students who study in the UK;

iv. The possible ways to increase students' engagement in PDP activities.

2.7.2 Analysis process

After introducing the unit of analysis, this section will discuss the analysis process of this research. It begins with the issue of reliability and validity, followed by group tests of each research question. Then, the practical analysis procedures are listed. Lastly, the initial coding is introduced.

2.7.2.1 Reliability

Two indices of reliability are commonly reported: Inter-rater and internal consistency (Klee & Moore, 2013). Inter-rater reliability is when multiple parties assess a given set of data to find agreement on the interpretation of a specific piece. This is useful as, due to the subjective nature of humans, information may be interpreted differently by different raters, and having this safeguard in place allows for intense consideration of multiple interpretations to prevent excessive bias (Kaynak & Herbig, 2014).

Internal consistency concerns the extent to which items on the test or instrument are measuring the same thing. It gives a different aspect of reliability, the extent to which the items in the scale 'agree' with each other in measuring the same thing (Bolarinwa, 2015). This is the main measurement of this data collection. It is often measured by split-half reliability and Cronbach's alpha coefficient. However, the split-half approach has been criticised 'do not give the same information as the correlation between two forms given at different times' and 'lack of uniqueness' (Cronbach, 1951; Kuder & Richardson, 1937). On the other hand, Cronbach's alpha is easy to interpret, a low alpha suggests the scale in question reflects more than one underlying attribute. A score on such a scale that is difficult to interpret leads to an unsatisfactory situation. Cronbach's alpha is objective and does not require subjective decisions rather than other reliability estimates; therefore, it is straightforward to use (Yang & Green, 2011).

In this study, the scales of key question Q11 and sub questions of Q13 delivered the students' perception of engaging in PDP activities, show satisfactory reliability is at α = .59. of a total 11 items to test (see *Table 7*). Although, the traditional threshold of 0.7 as acceptable reliability is flawed metric when it comes to diagnostic assessments (Abraham & Barker, 2015), several recent researches argue 0.59 should be a satisfactory reliability (Berger & Hänze, 2015; Nehring, Nowak, zu Belzen, & Tiemann, 2015). Especially, (Nehring et al., 2015) report an alpha reliability of 0.55 and explain this value in terms of how 'conceptual knowledge may constitute a non-coherent latent construct across a multitude of students' (Taber, 2018). In their research, they had a sample size of N=780, which is very similar to the author's N=768. Therefore, the mean aim of this study considered as reliable.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.59	.62	11

Table 7 Reliability test of questionnaire

2.7.2.2 Validity

Validity of refers to the concept of appropriateness and accuracy established in a research process (Kumar, 2011). To some extent, it stands for whether the test measures the attribute it is supposed to measure (Biggs, 1987). There can be inaccuracies introduced into a study at any stage. The concept of validity can be applied to the research process as a whole or to any of its steps: study design, sampling strategy, conclusions drawn, the applied statistical procedures or the measurement procedures used (Baur, 2009). In data analysis procedures, the focus is on writing statements or questions, selection of appropriate scales of measurement, questionnaire layout, format,

question ordering, font size, front and back cover, and proposed data analysis. Scales are devices used to quantify responses on a particular variable from the participants. It is important to understand the relationship between the level of measurement and the appropriateness of data analysis (Radhakrishna, 2007).

Establishing validity through logic implies justification of each question in relation to the objectives of the study (Wilson, 2012). The hard evidence is provided by the statistical procedures in the way of calculating the correlation coefficient between questions and the outcome variables (Angrist & Krueger, 2001). It is important to achieve the concept of validity and it is only logical when linked to a particular instrument.

There are four types of validity in quantitative research:

- Face validity;

- Content validity;

- Criterion-related (concurrent and predictive) validity;

- Construct validity.

In this study, part of the questions in the research instrument are logically linked with the research objectives refer to face validity. According to interest (Bölenius, Brulin, Grankvist, Lindkvist, & Söderberg, 2012), questionnaire questions need to measure the characteristic or trait of interest. Questions in this survey were reviewed carefully by a few experts and it has been agreed that they are logically linked with the research objectives. Therefore, face validity can be satisfied.

It is discussed in Bolarinwa's (2015) work that content validity pertains to the degree to which the instrument fully assesses or measures the construct of interest (Sangoseni, Hellman, & Hill, 2013); and construct validity is the degree to which an instrument

measures the trait or theoretical construct that it is intended to measure (Ong, 2012). Some other questions in this research programme are based upon statistical procedures, which is a more sophisticated technique for establishing the validity of an instrument using both content and construct validity (Messick, 1995). This technique is determined by ascertaining the contribution of each construct to the total variance observed in a phenomenon (Peter, 1979). As mentioned in the last part of section 2.4.3, the research objectives are tested by the logically linked questions. There is theoretical evidence that research hypotheses about the relationship between the measured concept (variable) or other concepts (variables) which refer to a sub type of construct validity called hypothesis-testing validity (Parsian & Dunning, 2009).

In the questionnaire designed for this study, it contains of face validity, content validity and construct validity which ensures this study design is valid.

2.7.2.3 Practical analysis procedures

The analysis procedures in this research project are informed by the works of Chan and Thompson (Chan & Thompson, 1983) in which they provide a complete process of how a quantitative research strategy emerges and how to analyse statistical data.

It is particularly important to refer back to the research object and the hypotheses to test to keep the analysis focused. Williams (2003) suggested the usual sequence of data analysis as follow:

1. Descriptive analysis: describe the distribution and range of responses to each variable and examine the data for skewness.
2. Recode data into categories where appropriate, for example, ages into age ranges, to enable statistically meaningful comparison of sub-groups.
3. Bivariate analyses: use simple cross-tabulations to identify trends and examine

possible associations between one variable and another.

4. Multivariate analyses/regression analysis techniques can then be used to test the effect of effect of one variable on an outcome, whilst controlling for another.

Questionnaires served as an instrument to collect data for this research. It can be used in a wide range of settings to gather information. In recent years, questionnaires also evaluate participant opinion of courses as part of the Continuing Professional Development (CPD) process (Williams, 2003). Meanwhile, the concept of PDP in this study is the similar process of CPD for students. Questionnaires particularly rely on the willingness of the subjects to take part. According to Williams (2003), there are nine steps to create a questionnaire:

1. Define your research question and study population.

2. Decide how the questionnaire will be administered.

3. Formulate your questions.

4. Formulate the responses.

5. Design the layout.

6. Pre-pilot the questions and layout.

7. Pilot study–test validity, reliability, and acceptability.

8. Design your coding scheme.

9. Print questionnaire.

Closed questions are largely used in this study (see Appendix 2), as it is quicker to complete and easier to code and analyze. Responses can be presented as simple yes/no choices; multiple tick boxes or to complete a Likert scale. The questionnaire in this study adopted 4-point Likert scale rather than 5-, 6-, 7-, 11-point Likert scale. (Cummins & Gullone, 2000) found that there is no difference on the proportion from scale utilized (> 3-points) or in the proportion of 'uncertain' responses (>5-points)

with >12-points formats. Long scales also seriously increased test time-consuming. On the other hand, the 5-, 7- and 11-point scales possess a 'neutral' and that may be diluted the subjects' willingness to choose neighboring categories (Leung, 2011). To compare the 4- and 6-points, Chang (1994) proved both scales were approximately the same in reliability. In context of section 2.6.1, the discussion of Chinese students also suggested 4-point Likert scale a better type applied in this research. However, investigations of normality shows that there is a weakness of shorter scales (Leung, 2011).

Many research has suggested that a large sample size should not be applied any criterion, which large sample size refers to >30, >40, >50, and recently >100, >200 depending on different academics (Cherry, 1998; d'Agostino, 1971; Ghasemi & Zahediasl, 2012; Mendes & Pala, 2003; Mostajeran, Iranpanah, & Noorossana, 2017; Seaman et al., 1999; Střelec & Stehlík, 2017). However, a series of test was conducted by Usman (2016) which choose sample sizes of 5, 10, 15, 20, 25 and 30, simulated from Normal, Uniform, Exponential, Beta and Gamma distributions. In comparison of t-test and U-test, t-test showed similar degree of type 1 error, but stronger power than U-test except Beta distribution. When using a sample size of 30 the t-test had the best performance. Therefore, >30 should reasonably be considered a large sample size, while >50 is necessary to reduce average bias (Seaman et al., 1999). It was suggested that the violation of the normality assumption should not cause major problems with large enough sample sizes (>30 or 40) (Pallant & Manual, 2007). This implies that parametric procedures can be used even when the data are not normally distributed (Elliott & Woodward, 2007). In this study, the total sample size is N=768. For any sub groups normally >200, the researcher is confident that the requirement of normality can be satisfied.

The measurement of an approach to an extracted factor is from the example in the report of (Chan & Thompson, 1983). The tool used in this study to collect numerical

data is a questionnaire via Qualtrics. After data is collected, SPSS is used for analysing statistical data to get numerical results. In addition, Microsoft Office applications are quite useful during the thesis writing process.

Initial coding: in this research project, the initial coding is done as soon as the questionnaire is launched. Coding every answer in the questionnaire is meaningful in order to analyse the results easily. For the questionnaire itself, questions were categorised in a reasonable structure. Every variable was coded into numbers for statistical analysis (for example strongly disagree code as 1, and strongly agree code as 4), whether the question is scale, nominal, ordinal or even multiple. It is useful to compare every datum with every other.

Report data: in this study, the results are mainly delivered by independent samples t-test to establish whether two means collected from independent samples differ significantly (Field, 2017). This statistical method has advantages such as simplicity of interpretation, robustness, ease of gathering data and ease of calculation (Flom, 2018). The independent t-test is considered as the most powerful test in respect of the data generated from normal, exponential and gamma distributions. Usman (2016) then concluded that independent samples t-test is the most suitable test when the underline distribution is normal and when sample sizes are large (discussed earlier in this section) for any distributions. However, when the assumption of normality is not met for the independent sample, the Mann Whitney U-test is indeed an alternative test to t-test (Usman, 2016). In order to report an unbiased estimator of the population value, Cohen's d is used as measurement of the effect size on some occasions (Field & Gillett, 2010; Grissom, 1994).

In this research, the data is reported in APA style. For example, for independent samples t-test, reporting data might write a sentence like this (Students, 2014):

"An independent-samples t-test was conducted to compare memory for words in sugar and no sugar conditions. There was a significant difference in the scores for sugar (M=4.2, SD=1.3) and no sugar (M=2.2, SD=0.84) conditions; $t(8)=2.89$, $p = 0.20$. These results suggest that sugar really does have an effect on memory for words. Specifically, our results suggest that when humans consume sugar, their memory for words increases." The significance threshold was set at 0.05 in this article. In the former paragraphs the use of 4-point Likert scales (effect range from strongly disagree to strongly agree) in this research was introduced, and effect magnitudes were systematically related to student characteristics. Consequently, the researcher considers that the hypotheses in this study are not directional. Other theories also suggest that one-tailed tests are not suitable to seek out and learn from unusual and unexpected variation in study outcomes; it has a confirmatory bias and higher type 1 error rate (Group, n.d.; Pillemer, 1991; Ruxton & Neuhäuser, 2010). Additionally, classical research has adopted a universal strategy of using two-tailed hypothesis tests when confidence interval procedures are adopted (Pillemer, 1991). In this study, p-value is therefore determined to report by two-tailed test. Moreover, it was recommended by Cohen (1990) that an effect size be accompanied by a confidence interval specifying a range of values for the underlying population parameter, rather than by a simple hypothesis test and probability value.

2.8 Contributions of the study

This research project tries to identify the needs for personal development planning as part of the higher education of Chinese students and UK students studying in the UK. Then, by exploring the probable ways to encourage these groups of students to engage in PDP activities by the ways they prefer to engage in these activities in order to possess their employability skills. In addition, increasing employability skills may help the individuals gain better employment; and may also provide new advice for the UK HE

sector and supply data to the UK government to review the previous work in this particular area.

2.9 Assumptions

The UK Council for International Student Statistics forecasted that the number of Chinese students studying in the UK will remain the highest portion of the total number of international students until at least the year 2024 (Malik, 2014). The concepts of personal development planning and progress files have been developed for over one and a half decades as the requirements for UK HEIs and the Higher Education Academy (Kumar, 2001). These bodies will continue to seek for the deeper definition of employability. Therefore, the generalised results from this study possibly will be effectively sustained for the next decade.

2.10 Limitation and Scope

This study intended to process all UK HEIs, the geographic location of respondents of questionnaire for this study as shown in *Figure 6*. However, there might be a considerable number of students from University of York. Because the University of York is a top 20 ranked university in the UK, students from G5 or lower ranking universities, with different lived academic experience, might have different perceptions of a same concept. In this case, this may lead to bias; as a consequence, the sample of this study might not reflect the real situation of the UK HE sector as a whole. Therefore, the number of participants from one institution should be controlled strictly, depending on the total population of the study. The results from this study are considered worthy of exploring in-depth by the Progress Files Implement Group (consisting of policy advisers from Universities UK, SCOP, LTSN Generic Centre and QAA) in the future.
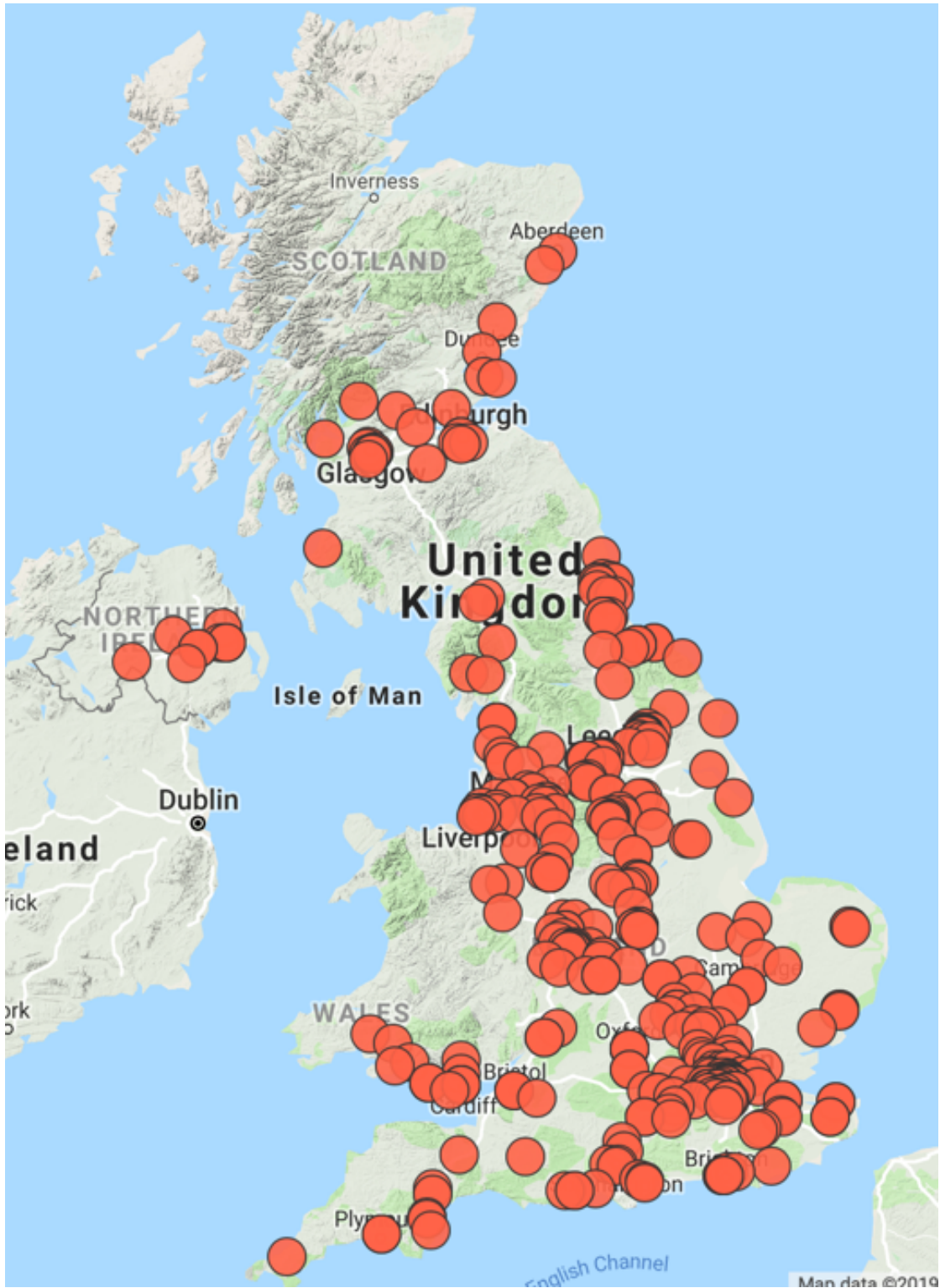
Figure 6 Respondents of questionnaire for this study

2.11 Chapter summary

This chapter discussed some of the methodologies used in exploring different performance in engagement of employability between UK and Chinese students and illustrated some potential challenges. This chapter highlighted the philosophical worldview of this study and the overall research design and setting of the chosen research approach. The details of the quantitative research methodologies involving the questionnaire and its sample size were also covered in this chapter. The following chapter will present the experimental research results found in students' responses.

Chapter 3 Comparison of UK and Chinese students' engagement with PDP activities with respect to the influence of various characteristic differences

3.1 Overview

This section describes the study results and their implications. It breaks down the findings based on key features and demographics. For instance, the first point of focus is a comparison between the British and Chinese learners. Major differences and similarities are discussed in relation to their impact on these results. Following this, comparisons will be made between male and female learners, full and part time students, science students and other types of learner, as well as between postgraduates and undergraduates. There will also be a discussion about employment prospects and differences between those who secure work before leaving university and those who do not. For all of these comparisons, nationality is a primary concern, as it has the potential to affect almost all aspects of life for a student. For example, a Chinese learner is bound to have a very different experience when trying find a job after university. The researchers also consider the impact of Guanxi (a concept that is central to Chinese culture) on learning experiences and future prospects. The findings are analysed using statistical data, deviance, and averages.

3.2 Nationality

According to Engel (Engel et al., 1978), personal decisions and motivating desires are directly influenced by environment and, in particular, social connections. This is the same in both China and Great Britain, though the two cultures are highly distinct. For foreign students, the differences can be dramatic and it is important to consider their impact on learning experiences. Personal Development Planning (PDP) as a learning approach enhances students well on learning, academic achievement and career planning (Quinton & Smallbone, 2008). The outcome of PDP is not only reflected from UK students, but also entailed from international students (Baker, Perkins, & Comber, 2014). This test lists some of the effects of nationality and considers their implications on education and social relationships. Additionally, the sample in this test was determined by the 2014-15 HESA database. There were a total 2,265,980 students enrolled in UK HEIs that academic year, 1,829,195 were from the UK, 89,540 were from China and 347,245 were from the rest of the world. In this research, only students from the UK or China were considered.

An independent-samples t-test was conducted to compare interest in and need for PDP among British and Chinese students, respectively. The hypothesis H1, that Chinese students studying in the UK have less interest to engage in PDP in the UK than UK students, is supported by the t-test at the .05 significance level. With British students presenting (M=2.79, SD=0.73) and Chinese students presenting (M=2.67, SD=0.79); t (761) = 2.22, p = 0.027 (see *Table 8 & Table 9*). Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=9.53, p=0.002. It indicates a significant difference between British and Chinese students when it comes to perceptions of PDP activities and their value. In addition, the Cohen's d value is -0.16. It indicates a relatively small degree of effect (as suggested by (Cohen, 1992)). A graphical representation of the means and the 95% confidence intervals is also

displayed (so with the latter tests) . Therefore, it can be said that Chinese students studying at British universities generally receive less value from PDP processes than their British peers. Furthermore, it proves Hypothesis 1 is true.

	What is your current nationality?	N	Mean	Std. Deviation	Std. Error Mean
During this academic year, I need to engage in one or more PDP activities.	UK	385	2.79	.728	.037
	China	383	2.67	.787	.040

Table 8 Group statistics of nationality impact on PDP activities

		Levene's Test for Equality of Variances		t-test for Equality of Means						
						Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
		F	Sig.	t	Df				Lower	Upper
During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	9.533	.002	2.216	766	.027	.121	.055	.014	.229
	Equal variances not assumed			2.215	760.734	.027	.121	.055	.014	.229

Table 9 Independent samples test of nationality impact on PDP activities

The cause of the dissimilarities between these two groups of learners is, of course, nationality. They are from two very different cultural environments. The result is a strikingly different world view and this can be seen in perceptions of PDP and other

forms of introspective learning. For instance, in Britain, PDP is held in high regard. Universities believe in the power of person centric studies and encourage students not just to collect information, but also to question its value. However, in Chinese universities, it is not considered particularly important. This can create problems for foreign students who enter a culture based on personal goals and drives, rather than the collective concepts of achievement that they are used to. In the UK, Records of Achievement (ROAs) have been a fixture for a quarter century (Bullock & Jamieson, 1998). Learners arrive at university with experience of PDP studies and evidence based portfolios (Gibbs, 1996; Hargreaves, 1986). In China, learners are taught to function as a community unit, with class grades taking precedence. The result is a lack of personal development and an unfamiliarity with self-directed studies. It is one of the biggest differences between British and Chinese students and one of the most common reasons for hardships among foreign learners.

Consequently, the primary focus of this study is nationality and its impact on learning experiences at university. It considers important aspects of the university journey and attempts to find out how nationality shapes them. However, the study also looks at factors such as gender, age, and employability to determine to what extent differences between British and foreign students are a product of nationality.

3.3 Age group

According to *Figure 7*, approximately 85% of the sample population is made up of 24 years and under. This group expresses a strong degree of interest in PDP learning. On the other hand, students aged over 30 years express the lowest degree of interest. The average amount of interest is calculated at 2.73, but this group gave a significantly lower score of 2.36. The test of correlation between age and level of study gave the following result: Pearson's r = 0.504, N=768, p < 0.001 (see   *Table 10, Table 11 &*

Table 12). It shows a moderate positive connection between the two variables (Mukaka, 2012). In other words, there does seem to be a notable connection between the age of learners and their perceptions of PDP. The same can be said for study experience as, in most cases, the older learners are those studying at postgraduate levels (see correlation of *Figure 7 & Figure 8)*. As has already been discussed, when the results of the study are considered in their entirety, the lower interest among older students does not seem to be due to negative perceptions of PDP. Rather, these more advanced learners have probably successfully implemented PDP in their previous studies and are now considering different priorities. The oldest group, for example, are probably working towards a PhD and might not have a lot of time to consider PDP activities.

It is then separated age groups by nationality (see *Table 13 & Table 14*). It is perhaps unsurprising that the younger students (under 20 years) show the greatest degree of enthusiasm for personally directed learning. This is even more pronounced among the UK learners, as the age group under 20 years shows the greatest degree of interest. Among both cultural groups, students aged over 30 express the lowest amount of interest in PDP activities. As explained, this is likely to be a result of split priorities and heavier workloads. Of this age group, 38% of British students are working towards a PhD. The number is higher (44%) among older Chinese learners.

During this academic year, I need to engage in one or more PDP activities.

What age group are you in?	Mean	N	Std. Deviation
20 and under	2.76	293	.728
21-24 years	2.75	357	.743
25-29 years	2.64	69	.860
30 years and over	2.36	22	.902
Total	2.73	768	.760

Table 10 Group statistics by age group
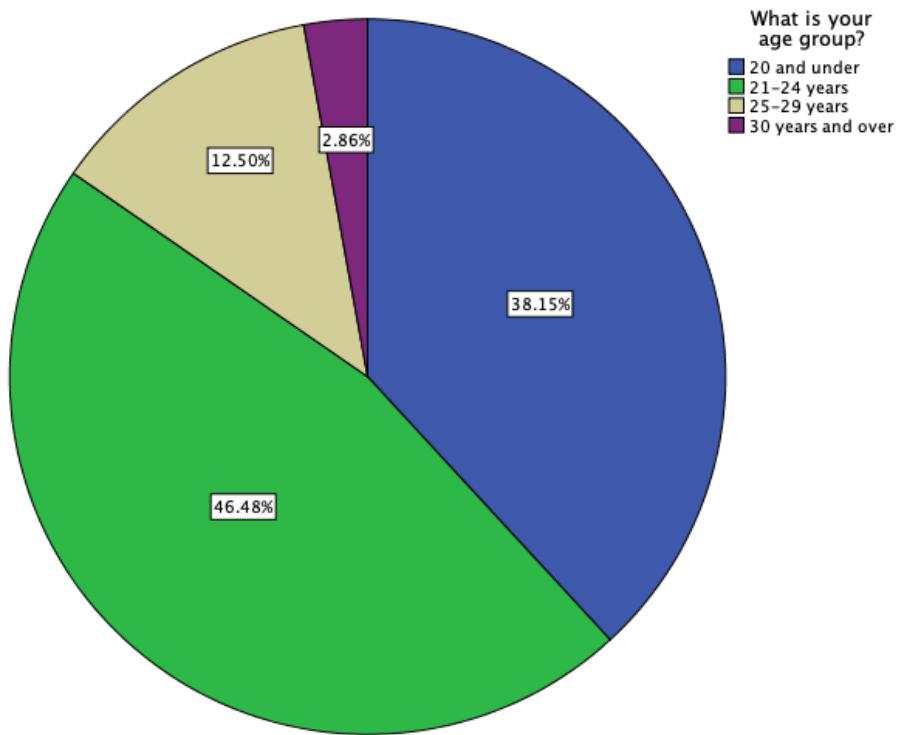
Figure 7 Students' population distribution by age
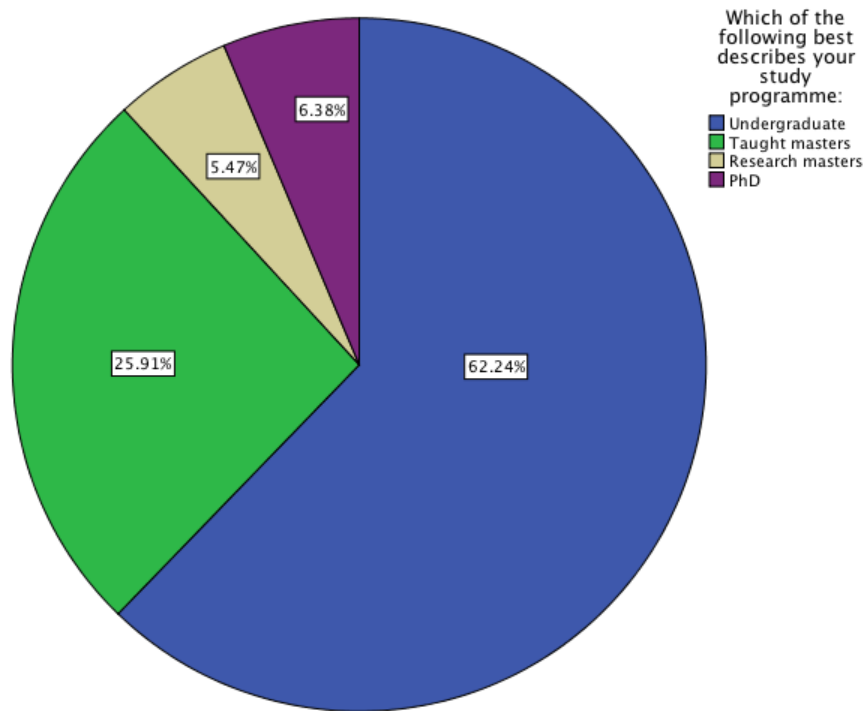
Figure 8 Students' population distribution by level of study

		What is your age group?				
		20 and under	21-24 years	25-29 years	30 years and over	Total
Which of the following best describes your study programme:	Undergraduate	271	179	23	5	478
	Taught masters	9	146	41	3	199
	Research masters	6	24	7	5	42
	PhD	7	8	25	9	49
Total		293	357	96	22	768

Table 11 Group statistics of age groups and level of study

		Which of the following best describes your study programme:	What is your age group?
Which of the following best describes your study	Pearson Correlation	1	.504
	Sig. (2-tailed)		.000

programme:	N	768	768
What is your age group?	Pearson Correlation	.504	1
	Sig. (2-tailed)	.000	
	N	768	768

Table 12 Correlation test of age groups and level of study

During this academic year, I need to engage in one or more PDP activities.

What is your current nationality?	What age group are you in?	Mean	N	Std. Deviation
UK	20 and under	2.77	221	.717
	21-24 years	2.90	118	.697
	25-29 years	2.73	33	.839
	30 years and over	2.38	13	.768
	Total	2.79	385	.728
China	20 and under	2.75	72	.765
	21-24 years	2.68	239	.755
	25-29 years	2.59	63	.873
	30 years and over	2.33	9	1.118
	Total	2.67	383	.787

Table 13 Group statistics of age group impact on PDP activities

What is your current nationality?			What is your age group?				Total
			20 and under	21-24 years	25-29 years	30 years and over	
UK	Which of the following best describes your study programme:	Undergraduate	199	78	14	3	294
		Taught masters	9	26	8	1	44
		Research masters	6	7	1	4	18

		PhD	7	7	10	5	29
	Total		221	118	33	13	385
China	Which of the following best describes your study programme:	Undergraduate	72	101	9	2	184
		Taught masters	0	120	33	2	155
		Research masters	0	17	6	1	24
		PhD	0	1	15	4	20
	Total		72	239	63	9	383

Table 14 Group statistics of age groups and level of study by nationality

3.4 Gender

The existing literature identifies some notable differences between male and female learners (Venkatesh et al., 2000). The experiment looked at the gender divide and whether or not being of a different sex has an impact on interest in PDP studies. In the academic year 2014-15, female students were 1,273,255 (56%) and male students were 992,350 (44%) of the total.

An independent-samples t-test was conducted to compare interest in and need for PDP among male and female students, respectively. The hypothesis H2, that male students do not have less interest to engage in PDP than female students, is supported by the t-test at the .05 significance level. With male students presenting (M=2.72, SD=0.76) and female students presenting (M=2.74, SD=0.76); t (766) = - 0.39, p = 0.697 (see *Table 15 & Table 16*). Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.63, p=0.427. It indicates no significant difference between male and female students when it comes to perceptions of PDP activities and their value. In addition, the Cohen's d value is -0.03. It indicates a small degree of effect. It is therefore suggested that Hypothesis 2 is not true.

	What is your gender?	N	Mean	Std. Deviation	Std. Error Mean
During this academic year, I need to engage in one or more PDP activities.	Male	339	2.72	.762	.041
	Female	429	2.74	.759	.037

Table 15 Group statistics of gender impact on PDP activities

		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
During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	.632	.427	-.389	766	.697	-.021	.055	-.130	.087
	Equal variances not assumed			-.389	723.917	.697	-.021	.055	-.130	.087

Table 16 Independent samples test of gender impact on PDP activities

The findings show no significant difference between male and female learners when it comes to willingness to engage with PDP studies. There are notable differences between the genders, but the data shows that both groups value (or at least express an interest in) personally directed activities.

Gender influence by nationality

Also investigated were the potential differences between male and female students' perception, in two groups of UK and Chinese students.

An independent-samples t-test was conducted to compare interest in and need for PDP among British male and British female students, respectively. British male students do not have less interest to engage in PDP than British female students, is supported by the t-test at the .05 significance level. With male students presenting (M=2.79, SD=0.71)

and female students presenting (M=2.80, SD=0.75); t(383) = -0.10, p = 0.92 (see *Table 17 & Table 18*) d= -0.01. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.13, p=0.719. It indicates no significant difference between British male and British female students when it comes to perceptions of PDP activities and their value.

An independent-samples t-test was conducted to compare interest in and need for PDP among Chinese male and Chinese female students, respectively. Chinese male students do not have less interest to engage in PDP than Chinese female students, is supported by the t-test at the .05 significance level. With male students presenting (M=2.65, SD=0.81) and female students presenting (M=2.69, SD=0.77); t (381) = -0.44, p = 0.657 (see *Table 17 & Table 18*) d= -0.03. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=1.83, p=0.176. It indicates no significant difference between Chinese male and Chinese female students when it comes to perceptions of PDP activities and their value.

What is your current nationality?	What is your gender?		N	Mean	Std. Deviation	Std. Error Mean
UK	During this academic year, I need to engage in one or more PDP activities.	Male	170	2.79	.707	.054
		Female	215	2.80	.746	.051
China	During this academic year, I need to engage in one or more PDP activities.	Male	169	2.65	.811	.062
		Female	214	2.69	.769	.053

Table 17 Group statistics of gender impact on PDP activities by nationality

What is your current nationality?			Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
UK	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	.130	.719	-.095	383	.924	-.007	.075	-.154	.140
		Equal variances not assumed			-.096	370.690	.924	-.007	.074	-.153	.139
China	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	1.834	.176	-.444	381	.657	-.036	.081	-.195	.123
		Equal variances not assumed			-.442	351.625	.659	-.036	.082	-.196	.124

Table 18 Independent samples test of gender impact on PDP activities by nationality

This variable indicates no distinct difference between male and female learners, though there were discrepancies between the two cultural backgrounds and nationalities. Therefore, the experiences of Chinese males and British females (and vice versa) are different.

Nationality influence by gender

The potential difference between male and female students was tested in two groups, UK students and Chinese students.

Group Statistics

What is your gender?		What is your current nationality?	N	Mean	Std. Deviation	Std. Error Mean
Male	During this academic year, I need to engage in one or more PDP activities.	UK	170	2.79	.707	.054
		China	169	2.65	.811	.062
Female	During this academic year, I need to engage in one or more PDP activities.	UK	215	2.80	.746	.051
		China	214	2.69	.769	.053

Table 19 Group statistics of nationality impact on PDP activities by gender

An independent-samples t-test was conducted to compare interest in and need for PDP among British male and Chinese male students, respectively. Chinese male students studying have less interest to engage in PDP than female students, is supported by the t-test at the .05 significance level. With UK students presenting (M=2.79, SD=0.71) and Chinese students presenting (M=2.65, SD=0.81); t(330) = 1.66, p = 0.97 (see *Table 19 & Table 20)* d=0.2. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=9.07, p=0.003. It indicates a significant difference between British male and Chinese male students when it comes to perceptions of PDP activities and their value.

An independent-samples t-test was conducted to compare interest in and need for PDP among British female and Chinese female students, respectively. Chinese female

students do not have less interest to engage in PDP than British female students, is supported by the t-test at the .05 significance level. with British students presenting (M=2.80, SD=0.75) and Chinese students presenting (M=2.69, SD=0.77); t (427) = 1.48, p = 0.139 (see *Table 19 & Table 20*) d=0.14. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=2.10, p=0.148. It indicates no significant difference between British female and Chinese female students when it comes to perceptions of PDP activities and their value.

Independent Samples Test

What is your gender?		Levene's Test for Equality of Variances		t-test for Equality of Means						95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference		Lower	Upper
Male	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	9.071	.003	1.663	337	.097	.137	.083	-.025	.300
		Equal variances not assumed			1.662	330.303	.097	.137	.083	-.025	.300
Female	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	2.104	.148	1.482	427	.139	.108	.073	-.035	.252
		Equal variances not assumed			1.482	426.457	.139	.108	.073	-.035	.252

Table 20 Independent samples test of nationality impact on PDP activities by gender

The test results suggest that Chinese male students have statistically less need for PDP activities than UK male students. On the other hand, Chinese female students show numerically less of a requirement than British female students but not statistically less. These factors cause the significant difference between the Chinese and UK nationals in the engagement of PDP activities.

3.5 Mode of study

According to some education experts, the experience of studying part time is very different to that of a full time learner. It is often suggested that part time learners (no matter their nationality) miss out on important opportunities and chances for personal development because they are splitting their time between two social domains (Moro-Egido & Panades, 2010). If there is a difference, it is likely to be strongly evident in perceptions of PDP studies. This test discusses engagement in PDP learning among part and full time students. 89.8% of students were full time and part time students were 10.2% in 2014-15 academic year.

An independent-samples t-test was conducted to compare interest in and need for PDP among full time and part time students, respectively. The Hypothesis H3, part time students do not have less interest to engage in PDP than full time students, is supported by the t-test at the .05 significance level. With full time students presenting (M=2.73, SD=0.75) and part time students presenting (M=2.73, SD=0.85); t (766) = 0.06, p = 0.949 (see *Table 21 & Table 22*) d=0.00. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=1.37, p=0.242. It indicates no significant difference between part and full time students when it comes to perceptions of PDP activities and their value. This suggests Hypothesis 3 is correct.

	What is your mode of study?	N	Mean	Std. Deviation	Std. Error Mean
During this academic year, I need to engage in one or more PDP activities.	Full time	706	2.73	.752	.028
	Part time	62	2.73	.853	.108

Table 21 Group statistics of mode of study impact on PDP activities

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	1.370	.242	.064	766	.949	.006	.101	-.191	.204
	Equal variances not assumed			.058	69.586	.954	.006	.112	-.217	.230

Table 22 Independent samples test of mode of study impact on PDP activities

The results show part time students do not have a lesser interest in PDP activities. While they may have fewer opportunities to pursue this type of learning, they express the same degree of engagement as full time students (Moro-Egido & Panades, 2010).

Mode of study influence by nationality

Next was exploration of the difference between full time and part time students, by nationality, to justify the possible differences among UK and Chinese students. Here,

the British full time students have an average age 20.8, with 43% male students and 57% female students; whereas British part time students average age is 21.5, and 53% are male, 47% are female. In the case of Chinese students, full time students' average age is 22.7 and consist of 44% male students and 56% female students. However, there were only 5 Chinese part time students took park in this research, therefore, the sample size was too small to draw any effective conclusion.

An independent-samples t-test was conducted to compare interest in and need for PDP among British full time and British part time students, respectively. Part time British students do not have less interest to engage in PDP than full time British students, is supported by the t-test at the .05 significance level. With full time British students presenting (M=2.80, SD=0.71) and part time British students presenting (M=2.72, SD=0.84) in the t-test; t (70) = 0.726, p = 0.470 (see *Table 23 & Table 24*) d= -0.01. However, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=3.98, p=0.047. It indicates no significant difference between part and full time students when it comes to perceptions of PDP activities and their value.

What is your current nationality?	What is your mode of study?		N	Mean	Std. Deviation	Std. Error Mean
UK	During this academic year, I need to engage in one or more PDP activities.	Full time	328	2.80	.707	.039
		Part time	57	2.72	.840	.111
China	During this academic year, I need to engage in one or more PDP activities.	Full time	378	2.67	.784	.040
		Part time	5	2.80	1.095	.490

Table 23 Group statistics of mode of study impact on PDP activities by nationality

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
What is your current nationality?		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
UK	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	3.980	.047	.819	383	.413	.086	.104	-.120	.291
		Equal variances not assumed			.726	70.461	.470	.086	.118	-.150	.321
China	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	.167	.683	-.369	381	.713	-.131	.355	-.828	.567
		Equal variances not assumed			-.266	4.054	.803	-.131	.492	-1.488	1.227

Table 24 Independent samples test of mode of study impact on PDP activities by nationality

The results suggest no notable discrepancies between the culture groups. Learners interested in pursuing PDP studies are able to achieve the same goals whether they are studying part or full time. It should be noted from the comments above that the result was dominated by the UK group, because the Chinese part time respondents were too few to show any effect on this test.

3.6 Subject of study

The researcher as individual PhD thought it necessary to consider subject choice and whether or not interest in a particular type of discipline changes the PDP experience. For example, science is a very practical and rigorous medium. It can be furthered and enhanced with the use of introspective tasks, but they are not essential for an understanding of key scientific concepts. Humanities, on the other hand, are much more subjective and their understanding is influenced by nationality, personal beliefs, future goals, and social environment. Unlike science, humanities are based on personal opinion. Therefore, it makes sense to theorise that science students might be less concerned with introspective development. There were 1,016,775 students in science subject area and 1,249,205 in non-science subject. For UK students, 43% of them studied science and 57% studied other. Chinese students had 37% in science subjects and 63% in non-science subjects.

An independent-samples t-test was conducted to compare interest in and need for PDP among science and other students, respectively. The Hypothesis H4, science students do not have less interest to engage in PDP than other students, is supported by the t-test at the .05 significance level. With science students presenting (M=2.73, SD=0.77) and other students presenting M=2.73 SD=0.75); t (766) = 0.06, p = 0.953 (see *Table 25 & Table 26*) d=0.00. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.017, p=0.895. It indicates no significant difference between science and other students when it comes to perceptions of PDP activities and their value. Therefore, the result of Hypothesis 4 is true.

	Are you a science student or not?	N	Mean	Std. Deviation	Std. Error Mean
During this academic year, I need to engage in one or more PDP activities.	Yes	308	2.73	.770	.044
	No	460	2.73	.753	.035

Table 25 Group statistics of subject of study impact on PDP activities

		Levene's Test for Equality of Variances		t-test for Equality of Means						
							Mean Differenc e	Std. Error Differenc e	95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)			Lower	Upper
During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	.017	.895	.060	766	.953	.003	.056	-.107	.113
	Equal variances not assumed			.059	648.349	.953	.003	.056	-.107	.114

Table 26 Independent samples test of subject of study impact on PDP activities

However, the results suggest science learners do not have less need in PDP activities than students of different subjects. Just like students of humanities, they value the opportunity to question their personal abilities, limits, beliefs, and ambitions. Crucially, PDP gives university students a chance to consider how being themselves might affect the way they learn and process information.

Subject of study influence by nationality

A set of tests was implement to explore the perceptions of UK science students and other students, and Chinese science students and other students.

An independent-samples t-test was conducted to compare interest in and need for PDP among British science students and British other students, respectively. British science students do not have less interest to engage in PDP than British non science students, is supported by the t-test at the .05 significance level. With British science students presenting (M=2.83, SD=0.73) and British non science students presenting (M=2.76, SD=0.73); t (383) = 0.92, p = 0.359 (see *Table 27 & Table 28*) d= 0.01. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.61, p=0.436. It indicates no significant difference between British science and British other students when it comes to perceptions of PDP activities and their value.

Another independent-samples t-test was conducted to compare interest in and need for PDP among Chinese science students and Chinese other students, respectively. Chinese science students do not have less interest to engage in PDP than Chinese other students, is supported by the t-test at the .05 significance level. With Chinese science students presenting (M=2.62, SD=0.81) and Chinese other students presenting (M=2.70, SD=0.78); t (381) = -0.98, p = 0.328 (see *Table 27 & Table 28*) d=-0.10. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.84, p=0.360. It indicates no significant difference between Chinese science and Chinese other students when it comes to perceptions of PDP activities and their value.

What is your current nationality?	Are you a science student or not?	N	Mean	Std. Deviation	Std. Error Mean
UK	During this academic year, I need to engage in one or more PDP activities. Yes	166	2.83	.727	.056
	No	219	2.76	.728	.049
China	During this academic year, I need to engage in one or more PDP activities. Yes	142	2.62	.805	.068
	No	241	2.70	.776	.050

Table 27 Group statistics of subject of study impact on PDP activities by nationality

What is your current nationality?			Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
UK	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	.609	.436	.918	383	.359	.069	.075	-.079	.216
		Equal variances not assumed			.918	355.659	.359	.069	.075	-.079	.216
China	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	.840	.360	-.979	381	.328	-.082	.083	-.245	.082
		Equal variances not assumed			-.970	286.959	.333	-.082	.084	-.247	.084

Table 28 Independent samples test of subject of study impact on PDP activities by nationality

Once again, the results show no notable differences between the cultural groups. It is worth mentioning that the mean value for the Chinese learners is slightly lower. This implies that, over a longer period of time, Chinese students may express a marginally lower interest in PDP activities.

3.7 Undergraduate/postgraduate variance

According to Lindsay (Lindsay et al., 2002), there are often major differences between 'younger' and 'older' students, where older refers to more university experience. This makes sense because, even between British undergraduates and postgraduates, learning processes are likely to be very different. As university students progress, they are given less supervision and direct counselling, because the expectation is that they'll be able to structure their own studies. PDP activities are a big part of this and, generally, a more prominent feature of postgraduate experiences. Therefore, it makes sense to consider perceptions of PDP processes among both postgraduate and undergraduate learners.

An independent-samples t-test was conducted to compare interest in and need for PDP among undergraduate students and postgraduate students, respectively. The Hypothesis H5, undergraduate students do not have less interest to engage in PDP than postgraduate students, is supported by the t-test at the .05 significance level. With undergraduate students presenting (M=2.76, SD=0.75) and postgraduate students presenting (M=2.78, SD=0.77); t (766) = 1.42, p = 0.156 (see *Table 29 & Table 30*) d= -0.03. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=2.98, p=0.085. It indicates no significant difference between undergraduate students and postgraduate students when it comes to perceptions of PDP activities and their value. Therefore, it proves Hypothesis 5 is logical.

	Are you an undergraduate or postgraduate student?	N	Mean	Std. Deviation	Std. Error Mean
During this academic year, I need to engage in one or more PDP activities.	Yes	479	2.76	.753	.034
	No	289	2.68	.770	.045

Table 29 Group statistics of level of study impact on PDP activities

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	2.978	.085	1.421	766	.156	.080	.057	-.031	.191
	Equal variances not assumed			1.413	596.483	.158	.080	.057	-.031	.192

Table 30 Independent samples test of subject of study impact on PDP activities

The results show similar levels of interest and engagement in PDP processes. This is, perhaps, because personally directed study is such a big part of the university experience. Even if a learner comes from a background that does not emphasise its value, they are exposed to it almost immediately when studying at a British university. While the degree of difficulty and support differs – postgraduate learners are naturally more advanced when it comes to shaping their studies – PDP is a focus from the outset.

Undergraduate/postgraduate variance influence by nationality

Undergraduate and postgraduate students were then separated by country of origin to facilitate comparisons of potential differences between the nationalities; 76% of British students were undergraduates and 24% postgraduates, whereas 48% of Chinese students were undergraduates and 52% postgraduates.

An independent-samples t-test was conducted to compare interest in and need for PDP among British undergraduate students and British postgraduate students, respectively. British undergraduate students do not have less interest to engage in PDP than British postgraduate students, is supported by the t-test at the .05 significance level. With British undergraduate students presenting (M=2.80, SD=0.70) and British postgraduate students presenting (M=2.77, SD=0.81); t (383) = 0.38, p = 0.704 (see *Table 31 & Table 32*) d=0.04. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=3.04, p=0.082. It indicates no significant difference between British undergraduate students and British postgraduate students when it comes to perceptions of PDP activities and their value.

Another independent-samples t-test was conducted to compare interest in and need for PDP among Chinese undergraduate students and Chinese postgraduate students, respectively. Chinese undergraduate students do not have less interest to engage in PDP than Chinese postgraduate students, is supported by the t-test at the .05 significance level. With Chinese undergraduate students presenting (M=2.70, SD=0.83) and Chinese postgraduate students presenting (M=2.64, SD=0.75); t (381) = 0.72, p = 0.473 (*Table 31 & Table 32*) d=0.08. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.23, p=0.630. It indicates no significant difference between Chinese undergraduate students and Chinese

postgraduate students when it comes to perceptions of PDP activities and their value.

What is your current nationality?	Are you an undergraduate or postgraduate student?		N	Mean	Std. Deviation	Std. Error Mean
UK	During this academic year, I need to engage in one or more PDP activities.	Yes	295	2.80	.703	.041
		No	90	2.77	.808	.085
China	During this academic year, I need to engage in one or more PDP activities.	Yes	184	2.70	.825	.061
		No	199	2.64	.751	.053

Table 31 Group statistics of level of study impact on PDP activities by nationality

What is your current nationality?			Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
UK	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	3.039	.082	.380	383	.704	.033	.088	-.139	.206
		Equal variances not assumed			.353	132.686	.725	.033	.094	-.154	.220
China	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	.233	.630	.719	381	.473	.058	.081	-.100	.216
		Equal variances not assumed			.716	370.062	.474	.058	.081	-.101	.217

Table 32 Independent samples test of level of study impact on PDP activities by

Once again, the results show no hugely significant difference between the cultural groups. PDP learning is equally important for Chinese and British students, both on a personal and social level. The mean value for the British students is slightly higher, but this is not a notable discrepancy. In both cases, PDP processes are less of a necessity for employment among experienced postgraduate learners than undergraduate students.

3.8 Final year students

In 2005, a study explored the nature of information seeking behaviours among first and final year learners. All participants were biology students enrolled at the University College of Dublin (Callinan, 2005). The goal was to determine whether final year learners are more or less interested in PDP processes than their less experienced counterparts.

An independent-samples t-test was conducted to compare interest in and need for PDP among last and earlier year students, respectively. The Hypothesis H6, last year students do not have less interest to engage in PDP than first year students, is supported by the t-test at the .05 significance level. With last year students presenting (M=2.70, SD=0.80) and first year students presenting (M=2.76, SD=0.72); t (729) = -0.99, p = 0.324 (see *Table 33 & Table 34*) d=-0.09. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=9.372, p=0.002. It indicates no significant difference between earlier and last year students when it comes to perceptions of PDP activities and their value. This is a negative poof for Hypothesis 6.

	Are you in the last year of your programme?	N	Mean	Std. Deviation	Std. Error Mean
During this academic year, I	Yes	360	2.70	.799	.042

need to engage in one or more PDP activities.	No	408	2.76	.723	.036

Table 33 Group statistics of final year of study programme impact on PDP activities

		Levene's Test for Equality of Variances		t-test for Equality of Means						
							Mean Differenc e	Std. Error Differenc e	95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)			Lower	Upper
During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	9.372	.002	-.993	766	.321	-.055	.055	-.162	.053
	Equal variances not assumed			-.987	729.48 7	.324	-.055	.055	-.163	.054

Table 34 Independent samples test of final year of study programme impact on PDP activities

The findings suggest that, regardless of experience, all learners value PDP activities highly and seek out opportunities for personal development. Contrary to the expectations of many scholars – who theorise that PDP learning is of more significance during the final year – it seems that 'younger' students show a slightly higher level of interest. This is not a huge discrepancy, however, and cannot be used as evidence of a major difference between the two groups. The small gulf may be a result of split priorities. During the final year, learners are preoccupied with finding employment as well as completing their courses. Tymon (2013) concluded previous studies and suggested that final-year students have similar views on the value of qualifications, with comments such as 'Education is number one', and 'A degree is standard, you need

more'. As a result of these observations it seems students may engage less with PDP activities.

Final year students' influence by nationality

The experiment then separated the UK and Chinese groups by year to compare students in their final or earlier years of their degree, within the nationality groups.

An independent-samples t-test was conducted to compare interest in and need for PDP among British last and British earlier year students, respectively. British last year students do not have less interest to engage in PDP than British first year students, is supported by the t-test at the .05 significance level. With British last year students presenting (M=2.76, SD=0.81) and British first year students presenting (M=2.81, SD=0.69); t (206) = -0.63, p = 0.532 (see *Table 35 & Table 36*) d= -0.07. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=7.02, p=0.008. It indicates no significant difference between British earlier and British last year students when it comes to perceptions of PDP activities and their value.

Another independent-samples t-test was conducted to compare interest in and need for PDP among Chinese last and Chinese earlier year students, respectively. Chinese last year students do not have less interest to engage in PDP than Chinese first year students, is supported by the t-test at the .05 significance level. With Chinese last year students presenting (M=2.68, SD=0.79) and Chinese first year students presenting (M=2.66, SD=0.78); t (381) = 0.13, p = 0.532 (see *Table 35 & Table 36*) d=0.03. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.32, p=0.897. It indicates no significant difference between Chinese earlier and Chinese final year students when it comes to perceptions of PDP activities and their value.

What is your current nationality?	Are you in the last year of your programme?	N	Mean	Std. Deviation	Std. Error Mean
UK	During this academic year, I need to engage in one or more PDP activities. Yes	123	2.76	.813	.073
	No	262	2.81	.685	.042
China	During this academic year, I need to engage in one or more PDP activities. Yes	237	2.68	.792	.051
	No	146	2.66	.781	.065

Table 35 Group statistics of final year of study programme impact on PDP activities by nationality

What is your current nationality?		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
UK	During this academic year, I need to engage in one or more PDP activities. Equal variances assumed	7.015	.008	-.667	383	.505	-.053	.080	-.210	.103
	Equal variances not assumed			-.627	206.114	.532	-.053	.085	-.220	.114
China	During this academic year, I need to engage in one or more PDP activities. Equal variances assumed	.318	.573	.129	381	.897	.011	.083	-.152	.174
	Equal variances not assumed			.130	310.189	.897	.011	.083	-.152	.173

Table 36 Independent samples test of final year of study programme impact on PDP activities by nationality

Here, the findings show no significant discrepancy between the two cultural groups. The mean value for the Chinese learners is slightly higher, but only by a marginal amount. In theory, this could be posited as evidence of a lesser interest in PDP processes. However, the difference is small and, interestingly, Chinese students in their final year tend to have a slightly increased level of interest; this might be due to consideration of undertaking an internship or a focus on the labour market in China to be able to secure an employment after graduation (Huang, Turner, & Chen, 2014). As opposed to British students who express a slightly lesser degree of engagement. This could be explained by a desire to appear more employable. As a foreign student, communication and self-awareness are especially important. Often, PDP activities are designed to support the development of these skills and abilities.

3.9 Secured post-graduation employment

When it comes to differences between the 'employed' and 'seeking employment,' the assumption is that interest in PDP processes may be slightly lower for both nationalities. If a learner has already secured a role before leaving university, they may feel a lesser need to further their personal development skills.

An independent-samples t-test was conducted to compare interest in and need for PDP among students with secured employment and students without secured employment, respectively. The hypothesis H7, employed students do not have less interest to engage in PDP than non-employed students, is supported by the t-test at the .05 significance level. With employed students presenting (M=2.63, SD=0.89) and non-employed students presenting (M=2.75, SD=0.73); t (173) = -1.44, p = 0.152 (see *Table 37 & Table 38*) d= -0.15. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=13.97, p=0.000. It indicates no significant difference between students with secured employment and students without secured

employment when it comes to perceptions of PDP activities and their value. The results of this test suggest Hypothesis 7 is true.

	Do you have employment arranged after graduation?	N	Mean	Std. Deviation	Std. Error Mean
During this academic year, I need to engage in one or more PDP activities.	Yes	134	2.63	.889	.077
	No	634	2.75	.729	.029

Table 37 Group statistics of post-graduation employment arrangement impact on PDP activities

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	13.973	.000	-1.636	766	.102	-.118	.072	-.260	.024
	Equal variances not assumed			-1.438	172.736	.152	-.118	.082	-.280	.044

Table 38 Independent samples test of post-graduation employment arrangement impact on PDP activities

According to this set of results, the mean amount of learners with employment already

secured is 2.63. This is numerically lower than the number of students who did not have a job role ready before leaving university (2.75). While interest in PDP processes remain high for groups, as expected, those with a secure job position spend less time pursuing these opportunities. There was evidence that students having secured employment were more likely to earn a better credential (Brooks & Youngson, 2016). This may be because they are preoccupied with more practical responsibilities or because they feel PDP learning is of less importance with a role to automatically step into. Interestingly, a consistent degree of engagement suggests that both groups continue to hold PDP activities in high regard.

Secured post-graduation employment influence by nationality

Tests were then conducted to identify the effect of existing employment arrangements on UK and Chinese students separately.

An independent-samples t-test was conducted to compare interest in and need for PDP among British students with secured employment and British students without secured employment, respectively. The British employed students do not have less interest to engage in PDP than British non-employed students, is supported by the t-test at the .05 significance level. With British employed students presenting (M=2.83, SD=0.89) and non-employed students presenting (M=2.78, SD=0.79); t (383) = 0.50, p = 0.615 (see *Table 39 & Table 40*) d=0.06. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=3.06, p=0.081. It indicates no significant difference between British students with secured employment and British students without secured employment when it comes to perceptions of PDP activities and their value.

Another independent-samples t-test was conducted to compare interest in and need for

PDP among Chinese students with secured employment and Chinese students without secured employment, respectively. The Chinese employed students do not have less interest to engage in PDP than Chinese non-employed students. With Chinese employed students presenting (M=2.44, SD=0.85) and Chinese non-employed students presenting (M=2.72, SD=0.76); t (92) = -2.49, p = 0.014 (see *Table 39 & Table 40*). Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=5.51, p=0.019. It indicates a significant difference between Chinese students with secured employment and Chinese students without secured employment when it comes to perceptions of PDP activities and their value. In addition, the Cohen's d value for this finding is 0.36 which indicates a small margin of effect.

What is your current nationality?		Do you have employment arranged after graduation?	N	Mean	Std. Deviation	Std. Error Mean
UK	During this academic year, I need to engage in one or more PDP activities.	Yes	66	2.83	.887	.109
		No	319	2.78	.692	.039
China	During this academic year, I need to engage in one or more PDP activities.	Yes	68	2.44	.853	.103
		No	315	2.72	.764	.043

Table 39 Group statistics of post-graduation employment arrangement impact on PDP

activities by nationality

What is your current nationality?			Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
UK	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	3.056	.081	.504	383	.615	.050	.099	-.144	.243
		Equal variances not assumed			.428	82.102	.670	.050	.116	-.181	.280
China	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	5.508	.019	-2.677	381	.008	-.279	.104	-.485	-.074
		Equal variances not assumed			-2.494	91.640	.014	-.279	.112	-.502	-.057

Table 40 Independent samples test of post-graduation employment arrangement impact on PDP activities by nationality

The findings show discrepancy between the two cultural groups. British learners show a high level of engagement with PDP processes whatever they are employment secured or not. Chinese students, however, securing employment leads to a low probability to engage in PDP activities before they leave university. This is largely expected, as foreign learners secure post-graduation employment may save more energy to have social and cultural obstacles to overcome after completing a university degree.

3.10 Previous employment experience

Students who have a history of previous employment have advantages in securing employment after graduating (Woodfield, 2011). It is not always the case, but most employers considered that it is important for graduates to have some work experience to help with organizational maturity (Hodges & Burchell, 2003). Therefore, if a learner, whether Chinese or British, has worked before or during their university studies, they will likely find a graduate job more speedily than those who have not.

An independent-samples t-test was conducted to compare interest in and need for PDP among students with job experience and students with no job experience, respectively. The hypothesis H8, the students with work experience do not have less interest to engage in PDP than the students without work experience. With work experienced students presenting (M=2.71, SD=0.80) and those without work experience presenting (M=2.75, SD=0.74); t (766) = -0.44, p = 0.659 (see *Table 41 & Table 42*) d=-0.05. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=1.68, p=0.195.It indicates no significant difference between students with job experience and students with no job experience when it comes to perceptions of PDP activities and their value. Therefore, Hypothesis 8 is proved to be true.

	Did you have employment before you started the university programme you are currently studying?	N	Mean	Std. Deviation	Std. Error Mean
During this academic year, I need to engage in one or more PDP activities.	Yes	201	2.71	.804	.057
	No	567	2.74	.744	.031

Table 41 Group statistics of previous employment experience impact on PDP activities

		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
During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	1.680	.195	-.441	766	.659	-.028	.062	-.150	.095
	Equal variances not assumed			-.425	329.186	.671	-.028	.065	-.155	.100

Table 42 Independent samples test of previous employment experience impact on PDP activities

The findings show an equivalent degree of engagement when it comes to PDP processes. One reason for this may be that students who have experience with employment recognise its ability to support future opportunities and understand that it can play a part in the honing of social skills, teamwork, decision making, and more.

Previous employment experience influence by nationality

A set of experiments were conducted to explore the effect of prior employment experience on the UK and Chinese students separately.

An independent-samples t-test was conducted to compare interest in and need for PDP among British students with job experience and British students with no job experience,

respectively. The British students with work experience do not have less interest to engage in PDP than the British students without work experience. With work experienced students presenting (M=2.81, SD=0.76) and those without work experience presenting (M=2.78, SD=0.71); t (383) = 0.39, p = 0.698 (see *Table 43 & Table 44*) d=0.04. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.18, p=0.673. It indicates no significant difference between British students with job experience and British students with no job experience when it comes to perceptions of PDP activities and their value.

Another independent-samples t-test was conducted to compare interest in and need for PDP among Chinese students with job experience and Chinese students with no job experience, respectively. The Chinese students with work experience do not have less interest to engage in PDP than the Chinese students without work experience. With work experienced students presenting (M=2.51, SD=0.855) and those without work experience presenting (M=2.70, SD=0.769); t (381) = -1.812, p = 0.071 (see *Table 43 & Table 44*). Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=3.80, p=0.052. It indicates (barely) no significant difference between Chinese students with job experience and Chinese students with no job experience when it comes to perceptions of PDP activities and their value. In addition, the Cohen's d value for this finding is 0.23. It indicates a small margin of effect.

What is your current nationality?		Did you have employment before you started the university programme you are currently studying?	N	Mean	Std. Deviation	Std. Error Mean
UK	During this academic year, I need to engage in one or more PDP activities.	Yes	133	2.81	.760	.066
		No	252	2.78	.711	.045
China	During this academic year, I need to engage in one or more PDP activities.	Yes	68	2.51	.855	.104
		No	315	2.70	.769	.043

Table 43 Group statistics of previous employment experience impact on PDP activities by nationality

In this case, there is no notable discrepancy between the cultural groups. On the other hand, the mean value for prior employment is numerically higher among the Chinese learners. This might need further interview in the future.

| | | Levene's Test for Equality of Variances | | t-test for Equality of Means | | | | | | |
| | | | | | | | | | 95% Confidence Interval of the Difference | |
What is your current nationality?		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
UK	During this academic year, I need to engage in one or more PDP activities. Equal variances assumed	.179	.673	.388	383	.698	.030	.078	-.123	.184
	Equal variances not assumed			.380	253.661	.704	.030	.080	-.127	.187
China	During this academic year, I need to engage in one or more PDP activities. Equal variances assumed	3.797	.052	-1.812	381	.071	-.190	.105	-.396	.016
	Equal variances not assumed			-1.691	91.822	.094	-.190	.112	-.413	.033

Table 44 Independent samples test of previous employment experience impact on PDP activities by nationality

3.11 Guanxi (关系) for Chinese students

3.11.1 Overview

The term 'Guanxi' refers to a social concept that is prevalent in China. It is based on the notion that, together, people are stronger. In the business world, for example, people can achieve a lot more if they work as a team. Therefore, Guanxi embodies the

importance of strong relationships and social connections (Wang, 2007). It should be pointed out that, technically, Guanxi and PDP processes are oppositional. The latter encourages personal introspective and solo development, whereas the former is based on collaborative efforts (Tsui & Farh, 1997). As a result, it is theorised that Chinese students may feel less interested in PDP development because of their belief in Guanxi. The purpose of the next tests is to determine whether this is true.

To reiterate, Guanxi is a very particular concept that is unique to Chinese culture. There may be similar concepts in other cultures, but for the purposes of this study it relates to Chinese learners only. For foreign students enrolled at British universities, Guanxi may prove a boon in two ways. Social connections back home, in China, may help the student to secure a job when they return. Alternatively, connections in the UK may support job finding efforts here, in the country of their studies. Both of these possibilities are considered in the next sections.

3.11.2 Chinese students who have Guanxi (关系) at home have support to find employment in China after graduation

An independent-samples t-test was conducted to compare need of PDP in Chinese students who have Guanxi at home can support to get an employment in China after graduation and Chinese students who do not Guanxi at home can support to get an employment in China after graduation separately. In support of the t-test at the .05 significance level, there was not a significant difference in the scores for Chinese students who have Guanxi at home can support to get an employment in China (M=2.67, SD=0.97) and Chinese students who do not have Guanxi at home can support to get an employment in China (M=2.68, SD=0.78); $t(381) = -0.08$, $p = 0.933$ (see *Table*

45 & Table 46) d= -0.01. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.28, p=0.599. These results suggest that Chinese students who have Guanxi at home can support to get an employment in China and Chinese students who do not have Guanxi at home can support to get an employment in China do not have significant difference on the need of PDP activities. The results of this experiment suggest Hypothesis 1.1 is untrue.

	My Guanxi (关系) at home can support me to get an employment in China after graduation.	N	Mean	Std. Deviation	Std. Error Mean
During this academic year, I need to engage in one or more PDP activities.	Yes	223	2.67	.793	.053
	No	160	2.68	.781	.062

Table 45 Group statistics of Guanxi's impact on PDP activities (China)

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	.276	.599	-.084	381	.933	-.007	.082	-.167	.154
	Equal variances not assumed			-.084	345.502	.933	-.007	.081	-.167	.153

Table 46 Independent samples test of Guanxi's impact on PDP activities (China)

The fact that the total group of Chinese students divides moderately equally into two groups of equal engagement in PDP activities, further experiments were conducted to test whether there is a significant difference between these two groups in every respect. The results suggest that nothing is significantly different between these two groups in every aspect.

Unexpectedly, the students placing numerically more value on PDP activities are the Chinese learners planning to use Guanxi for employment back home. It may be that because their future job prospects based on guanxi rely on their exposure to overseas education and employment, they are motivated to develop their personal skills and decision making abilities for the potential job role.

3.11.3 Chinese students who have Guanxi (关系) at home have support to find employment in the UK or any other country after graduation

An independent-samples t-test was conducted to compare need of PDP in Chinese students who have Guanxi at home can support to get an employment in UK or any other country after graduation and Chinese students who do not Guanxi at home can support to get an employment in UK or any other country after graduation separately. , In support of the t-test at the .05 significance level, there was not a significant difference in the scores for Chinese students who have Guanxi at home can support to get an employment in UK or any other country after graduation (M=2.76, SD=0.86) and Chinese students who do not have Guanxi at home can support to get an employment in UK or any other country after graduation (M=2.66, SD=0.78); t(381) = 0.80, p = 0.424 (see *Table 47 & Table 48*) d=0.12. Additionally, the assumption of

homogeneity of variances was tested and satisfied via Levene's F test, F=0.03, p=0.865. These results suggest that Chinese students who have Guanxi at home can support to get an employment in UK or any other country after graduation and Chinese students who do not have Guanxi at home can support to get an employment in UK or any other country after graduation do not have significant difference on the need of PDP activities. It further indicates that Hypothesis 1.2 is not true.

	My Guanxi (关系) at home can support me to get an employment in the UK or any other country after graduation.	N	Mean	Std. Deviation	Std. Error Mean
During this academic year, I need to engage in one or more PDP activities.	Yes	49	2.76	.855	.122
	No	334	2.66	.777	.043

Table 47 Group statistics of Guanxi's impact on PDP activities (UK or other)

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	.029	.865	.801	381	.424	.096	.120	-.140	.333
	Equal variances not assumed			.746	60.222	.459	.096	.129	-.162	.355

Table 48 Independent samples test of Guanxi's impact on PDP activities (UK or other)

The results suggest Chinese learners with a great deal of Guanxi, both here and at home, tend to show more interest in pursuing PDP development. While the discrepancy between the two groups is only small, it seems Chinese students with strong Guanxi are keen to prove themselves by taking more opportunities to grow.

3.11.4 Students who would like to discuss PDP with family members

As explained in section 1.7, the most intimate Guanxi connection is manifested in familial ties (Yang, 1992). Of all the social relationships, this one tends to be have the biggest influence. Whether a student is Chinese or British, they are likely to value the opinions of their parents and other family members. For Chinese students though, the reliance on family advice is particularly important and it plays a big part in career choices. It suggests that PDP is most likely to be explored and discussed among close family relations.

An independent-samples t-test was conducted to compare the perception of discussing PDP with a family member in Chinese students who have Guanxi at home can support to get an employment in China after graduation and Chinese students who do not have Guanxi at home can support to get an employment in China after graduation separately. In support of the t-test at the .05 significance level, there was a significant difference in the scores for Chinese students who would like to discuss PDP with a member of family and have Guanxi at home can support to get an employment in China (M=0.61, SD=0.49) and Chinese students who do not have Guanxi at home can support to get an employment in China (M=0.36, SD=0.48); t(381) = 5.139, p = 0.000 (see *Table 49 & Table 50*). Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=1.41, p=0.236. These results suggest that Chinese students who have Guanxi at home can support to get an employment in China and

Chinese students who do not have Guanxi at home can support to get an employment in China have significant difference in discussing PDP with a family number. In addition, the Cohen's d value for this finding is 0.52 which indicates a medium effect. This suggests the results of this test should consider with care.

	My Guanxi (关系) at home can support me to get an employment in China after graduation.	N	Mean	Std. Deviation	Std. Error Mean
Discuss PDP with a member of your family.	Yes	223	.61	.488	.033
	No	160	.36	.480	.038

Table 49 Group statistics of Guanxi's impact on discussing PDP with family member

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Discuss PDP with a member of your family.	Equal variances assumed	1.410	.236	5.139	381	.000	.258	.050	.159	.357
	Equal variances not assumed			5.152	345.764	.000	.258	.050	.160	.357

Table 50 Independent samples test of Guanxi's impact on discussing PDP with family member

The findings indicate a strong connection between Guanxi and employment activities. In other words, as predicted, Chinese students do seek the advice of their parents and other close family relations when making career decisions. In fact, most encourage their family members to actively assist with job hunting and share their feelings about the value of PDP learning.

Discussion in section 1.7 also addressed the features of Western Social Networks (WSN). To explore the British students' perception of discussing PDP with close family members, an independent-samples t-test was conducted to compare the perception of discussing PDP with a family member in UK students who think WSN is important to get an employment after graduation and UK students who do not think WSN is important to get an employment separately. In support of the t-test at the .05 significance level, there was no significant difference in the scores for UK students who would like to discuss PDP with a member of family and think WSN is important to get an employment (M=0.29, SD=0.46) and UK students who do not have think WSN is important to get an employment (M=0.30, SD=0.46); t(383) = -0.14, p = 0.885 (see *Table 51 & Table 52*) d= -0.02. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.08, p=0.773. These results suggest that British students who think WSN is important to get an employment and British students who do not think WSN is important to get an employment do not have significant difference in discussing PDP with a family number.

Group Statistics

	Do you think personal/social network is important to obtain a job.	N	Mean	Std. Deviation	Std. Error Mean
Discuss PDP with a member of your family.	No	193	.29	.455	.033
	Yes	192	.30	.458	.033

Table 51 Group statistics of WSN's impact on discussing PDP with family member

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
						Sig. (2-tailed)	Mean Differenc e	Std. Error Differenc e		
		F	Sig.	t	df				Lower	Upper
Discuss PDP with a member of your family.	Equal variances assumed	.083	.773	-.144	383	.885	-.007	.047	-.098	.085
	Equal variances not assumed			-.144	382.946	.885	-.007	.047	-.098	.085

Table 52 Independent samples test of WSN's impact on discussing PDP with family member

Unlike Chinese students, there is a same degree for British students to discuss PDP with family members. Section 1.7 illustrated WSN also have a strong performance in the job-seeking routine. There might be a number of British students discuss PDP in the way of future employment. It is worth noting that regardless of whether UK students think WSN is important or not in the job-seeking process, they are approximately numerically equally like to asking for advice from family. In simple terms, British students realize they should be capable for a specific job role, no matter the family ties they have that can support or not in the process of gaining an employment.

3.12 Chapter summary

This chapter examined all hypotheses and sub-hypotheses by analysing the data collected using the questionnaire. The results suggested possible elements that may influence students' interest in engaging with PDP activities. When analysing each element, students were divided into two groups, namely the UK and Chinese students, to investigate whether there are discrepancies due to cultural differences. The next chapter will discuss the possible effect of students' participation in non-credit bearing activities.

Chapter 4 Students participation in non-credit bearing activities

4.1 Overview

The next result relates to how many students feel willing to complete assignments even if they don't count towards a final grade. In many ways, this is the very essence of PDP learning. These activities are designed to stimulate thinking and encourage students to explore their cognitive abilities. Often, they have personal value, but they don't get counted as part of academic scores. As expected, a sizeable proportion of students (30.9%, see *Figure 9*) feel no or little enthusiasm for PDP tasks if they don't count towards the final grade. This group of students is investigated further in the subsequent sections.
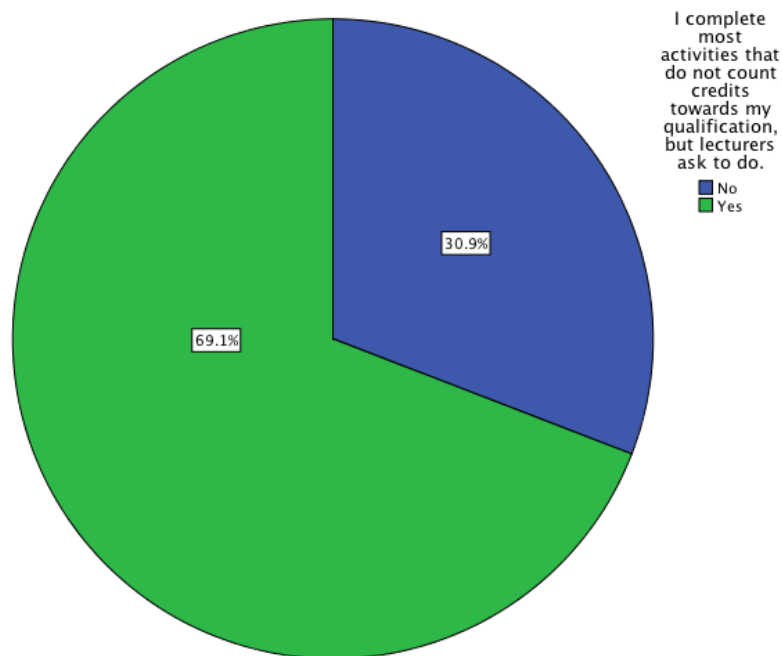
Figure 9 Students' perception on non-credit bearing activities recommended by lecturers

The researcher is interested in whether perceptions of the value of PDP have a direct impact on willingness to engage with them. If a teacher advises students to complete a task, they do so for a good reason. If that advice is disregarded, it implies learners do not entirely believe in the usefulness of these processes.

An independent samples t-test was conducted to compare need of PDP in students who would like to complete most activities that lectures ask to do but do not count credit and students who do not would like to do so separately. In support of the t-test at the .05 significance level, there was a significant difference in the scores for students who would like to complete most activities that lecturers ask to do but do not count credit (M=2.80, SD=0.72) and students who do not would like to follow the academics' guidance (M=2.59, SD=0.82); t(408) = 3.41, p = 0.001 (see *Table 53 & Table 54*). Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=19.83, p=0.000. These results suggest that students who would like to complete most activities that lectures ask to do but do not count credit towards the qualification and students who do not would like to complete most activities lecturers ask to do have significant difference in the need for PDP activities. In addition, the Cohen's d for this test is 0.27, which refer to a small margin of effect.

	I complete most activities that do not count credits towards my qualification, but lecturers ask to do.	N	Mean	Std. Deviation	Std. Error Mean
During this academic year, I need to engage in one or more PDP activities.	Yes	531	2.80	.724	.031
	No	237	2.59	.817	.053

Table 53 Group statistics of non-credit bearing activities recommended by lecturers impact on PDP activities

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	19.826	.000	3.567	766	.000	.210	.059	.094	.326
	Equal variances not assumed			3.407	408.293	.001	.210	.062	.089	.331

Table 54 Independent samples test of non-credit bearing activities recommended by lecturers' impact on PDP activities

The results demonstrate a strong discrepancy in the perceptions of PDP between students who are willing to complete the tasks and those who would rather disregard them. The potential to credit did make a difference for students when compared to a non-credit-bearing alternatives (Kursun, 2016). In other words, students are more interested in studying credit bearing assessment. This is also a challenge of the PDP process. Generally, learners with consistently high opinions of PDP are the ones who engage willingly with tasks, regardless of their tangible or intangible consequences. Students who value PDP activities less highly tend to be more focused on academic tasks and achievements that count towards their final grade.

4.2 Nationality

To reiterate, discrepancies between the British and Chinese learners is the most important focus of this research. The goal of the study is to determine why and how attitudes towards PDP activities may differ between the cultural groups.

An independent-samples t-test was conducted to compare need of PDP between UK and Chinese students separately. In support of the t-test at the .05 significance level, there was not a significant difference in the scores for UK students who do not wish to do what lecturers ask (M=2.67, SD=0.81) and UK students who do wish to do what lecturers ask (M=2.84, SD=0.69) students; t(163) = -1.83, p = 0.69 (see *Table 55 & Table 56*) d= -0.23. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=9.81, p=0.002. These results suggest that UK students who do not conform and UK students who do conform have no significant difference on the need of PDP activities. There was a significant difference in the scores for Chinese students who do not wish to conform (M=2.52, SD=0.82) and Chinese students who do conform (M=2.75, SD=0.76) students; t(251) = -2.72, p = 0.007 (see *Table 55 & Table 56*) d= -0.29. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=7.18, p=0.008. These results suggest that Chinese students who do not wish to do as lecturers ask and Chinese students who do conform have significant difference on the need of PDP activities.

What is your current nationality?		I complete most activities that do not count credits towards my qualification, but lecturers ask to do.	N	Mean	Std. Deviation	Std. Error Mean
UK	During this academic year, I need to engage in one or more PDP activities.	No	104	2.67	.806	.079
		Yes	281	2.84	.693	.041
China	During this academic year, I need to engage in one or more PDP activities.	No	133	2.52	.822	.071
		Yes	250	2.75	.757	.048

Table 55 Group statistics of non-credit bearing activities recommended by lecturers'

impact on PDP activities by nationality

It was predicted that British learners would show no notable difference as regards PDP with no academic value, and the results indicate this to be true. Similarly, Chinese students are less likely to complete PDP tasks if they do not count as credit, even if a teacher explicitly requests that they do so. Students from both culture group have numerically higher needs for PDP when they respect and follow the academics' guidance.

What is your current nationality?			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
UK	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	9.806	.002	-1.961	383	.051	-.163	.083	-.327	.000
		Equal variances not assumed			-1.830	162.621	.069	-.163	.089	-.339	.013
China	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	7.197	.008	-2.786	381	.006	-.233	.084	-.398	-.069
		Equal variances not assumed			-2.716	250.844	.007	-.233	.086	-.402	-.064

Table 56 Independent samples test of non-credit bearing activities recommended by lecturers' impact on PDP activities by nationality

4.3 Gender

While comparisons between Chinese and British learners are the main goal of the study, the researchers are also interested in the differences between male and female students. For example, of the 237 respondents who expressed disinterest in PDP activities with no academic value, 60% were females and 40% males. As this is quite a big difference,

it's worth analysing the data to find out why this is the case.

An independent-samples t-test was conducted to compare need of PDP in male and female students separately. In support of the t-test at the .05 significance level, there was a significant difference in the scores for male students who do not wish to do as lecturers ask (M=2.57, SD=0.80) and male students who conform to what lecturers ask (M=2.78, SD=0.74); t(159) = -2.12, p = 0.036 (see *Table 57 & Table 58*) d= -0.27. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=4.36, p=0.038. These results suggest that male students who do not conform and male students who do conform have significant difference on the need of PDP activities. There was a significant difference in the scores for female students who do not conform (M=2.59, SD=0.83) and female students who do conform (M=2.81, SD=0.71); t(247) = -2.71, p = 0.007 (see *Table 57 & Table 58*) d= -0.28. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=17.01, p=0.000. These results suggest that female students who do not wish to do as lecturers ask and female students who do as lecturers ask have a significant difference on the need of PDP activities.

The findings show female learners perceive PDP processes a little differently to their male counterparts. While they usually see the value in completing such activities, their degree of interest wanes if the impact is less tangible (not relating to academic scores).

What is your gender?		I complete most activities that do not count credits towards my qualification, but lecturers ask to do.	N	Mean	Std. Deviation	Std. Error Mean
Male	During this academic year, I need to engage in one or more PDP activities.	No	94	2.57	.796	.082
		Yes	245	2.78	.743	.047
Female	During this academic year, I need to engage in one or more PDP activities.	No	143	2.59	.833	.070
		Yes	286	2.81	.709	.042

Table 57 Group statistics of non-credit bearing activities recommended by lecturers'

impact on PDP activities by gender

What is your 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
Male	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	4.359	.038	-2.186	337	.029	-.201	.092	-.382	-.020
		Equal variances not assumed			-2.119	158.723	.036	-.201	.095	-.388	-.014
Female	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	17.055	.000	-2.859	427	.004	-.220	.077	-.372	-.069
		Equal variances not assumed			-2.710	247.331	.007	-.220	.081	-.380	-.060

Table 58 Independent samples test of non-credit bearing activities recommended by lecturers' impact on PDP activities by gender

4.4 Mode of study

The researchers are also interested in whether part and full time students differ when it comes to completing PDP tasks with no purely academic value.

An independent-samples t-test was conducted to compare need of PDP between full time and part time students, separately. In support of the t-test at the .05 significance level, there was a significant difference in the scores for full time students who do not wish to do as lecturers ask (M=2.58, SD=0.79) and full time students who conform to what lecturers ask (M=2.80, SD=0.72) students; $t(390) = -3.49$, $p = 0.001$ (see *Table 59 & Table 60*) d= -0.29. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=15.20, p=0.000. These results suggest that full time students who do not conform and full time students who do conform have significant difference on the need of PDP activities. There was not a significant difference in the scores for part time students who do not wish to do as lecturers ask (M=2.65, SD=1.12) and part time students who do as lecturers ask (M=2.76, SD=0.74) students; $t(22) = -0.37$, $p = 0.714$ (see *Table 59 & Table 60*) d= -0.12. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=6.65, p=0.012. These results suggest that part time students who do not conform and part time students who do conform do not have significant difference on the need of PDP activities.

There seems to be no huge difference between the part and full time students when it comes to valuing PDP processes, regardless of their academic implications. There is a slight discrepancy, but it is only small and this makes sense. While part time learners have fewer scheduled sessions in which to complete tasks, they also have fewer tasks to complete than the full time students. As such, workload is unlikely to be all that different among the two groups and probably not a bigger concern for one than the

other.

What is your mode of study?		I complete most activities that do not count credits towards my qualification, but lecturers ask to do.	N	Mean	Std. Deviation	Std. Error Mean
Full time	During this academic year, I need to engage in one or more PDP activities.	No	220	2.58	.792	.053
		Yes	486	2.80	.723	.033
Part time	During this academic year, I need to engage in one or more PDP activities.	No	17	2.65	1.115	.270
		Yes	45	2.76	.743	.111

Table 59 Group statistics of non-credit bearing activities recommended by lecturers'

impact on PDP activities by mode of study

What is your mode of study?			Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Full time	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	15.203	.000	-3.609	704	.000	-.219	.061	-.338	-.100
		Equal variances not assumed			-3.487	390.200	.001	-.219	.063	-.342	-.095
Part time	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	6.645	.012	-.444	60	.659	-.108	.244	-.597	.380
		Equal variances not assumed			-.371	21.605	.714	-.108	.292	-.715	.498

Table 60 Independent samples test of non-credit bearing activities recommended by lecturers' impact on PDP activities by mode of study

4.5 Subject of study

It is possible that the choice of academic subject may have an impact on perceptions of PDP activities. As already discussed, some predict that students of technical subjects like science will find abstract, introspective learning less valuable.

An independent-samples t-test was conducted to compare need of PDP among science and other students separately. In support of the t-test at the .05 significance level, there was a significant difference in the scores for science students who do not wish to do as lecturers ask (M=2.48, SD=0.86) and science students who wish to do as lecturers ask (M=2.84, SD=0.70) students; t(140) = -3.52, p = 0.001 (see *Table 61 & Table 62*) d= -0.46. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=19.32, p=0.000. These results suggest that science students who do not conform and science students who do conform have significant difference on the need of PDP activities. There was not a significant difference in the scores for other students who do not wish to do as lecturers ask (M=2.65, SD=0.78) and other students who do as lecturers ask (M=2.77, SD=0.74) students; t(458) = -1.51, p = 0.131 (see *Table 61 & Table 62*) d= -0.16. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=3.75, p=0.053. These results suggest that other students who do not conform and other students who do conform do not have significant difference on the need of PDP activities.

Are you a science student or not?		I complete most activities that do not count credits towards my qualification, but lecturers ask to do.	N	Mean	Std. Deviation	Std. Error Mean
Yes	During this academic year, I need to engage in one or more PDP activities.	No	90	2.48	.864	.091
		Yes	218	2.84	.703	.048
No	During this academic year, I need to engage in one or more PDP activities.	No	147	2.65	.782	.065
		Yes	313	2.77	.738	.042

Table 61 Group statistics of non-credit bearing activities recommended by lecturers' impact on PDP activities by subject of study

Are you a science student or not?			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
Yes	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	19.318	.000	-3.830	306	.000	-.362	.094	-.547	-.176
		Equal variances not assumed			-3.518	140.062	.001	-.362	.103	-.565	-.158
No	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	3.753	.053	-1.511	458	.131	-.114	.075	-.262	.034
		Equal variances not assumed			-1.480	271.459	.140	-.114	.077	-.265	.038

Table 62 Independent samples test of non-credit bearing activities recommended by lecturers' impact on PDP activities by subject of study

As predicted the mean value for the science students is significantly different for science and non-science students. Of all the groups, the science learners were less likely to feel happy about completing tasks that they considered had no academic value. They seek activities for personal and professional growth on technical skills (Hunter,

Laursen, & Seymour, 2007). However, there was a strong correlation with individual perceptions of PDP activities. In other words, even science students would express a high level of enthusiasm if they, on a personal level, believed in the developmental potential of these tasks.

4.6 Undergraduate/postgraduate variance

A comparison among undergraduate and postgraduate students who do not follow the academics' suggestions to participate in activities that do not earn credit toward their qualification on the need of PDP was made in this section.

An independent-samples t-test was conducted to compare need of PDP between undergraduate students and postgraduate students, separately. In support of the t-test at the .05 significance level, there was a significant difference in the scores for undergraduate students who do not wish to do as lecturers ask (M=2.63, SD=0.80) and undergraduate students who do as lecturers ask (M=2.81, SD=0.72) conditions; t(249) = -2.35, p = 0.019 (see *Table 63 & Table 64*) d= -0.24. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=9.21, p=0.003. These results suggest that undergraduate students who do not conform and undergraduate students who do conform have significant difference on the need of PDP activities. There was a significant difference in the scores for postgraduate students who do not wish to do as lecturers ask (M=2.52, SD=0.84) and postgraduate students who do as lecturers ask (M=2.77, SD=0.73) conditions; t(159) = -2.47, p = 0.015 (*Table 63 & Table 64*) d= -0.32. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=9.42, p=0.002. These results suggest that postgraduate students who do not conform and postgraduate students who do conform have significant difference on the need of PDP activities.

Are you an undergraduate or postgraduate?	I complete most activities that do not count credits towards my qualification, but lecturers ask to do.		N	Mean	Std. Deviation	Std. Error Mean
Undergraduate	During this academic year, I need to engage in one or more PDP activities.	No	144	2.63	.800	.067
		Yes	334	2.81	.724	.040
Postgraduate	During this academic year, I need to engage in one or more PDP activities.	No	93	2.52	.842	.087
		Yes	197	2.77	.726	.052

Table 63 Group statistics of non-credit bearing activities recommended by lecturers'

impact on PDP activities by level of study

The data shows a notable discrepancy between the undergraduate and post graduate students. For both undergraduates and postgraduates those less likely to follow lecturers' recommendation with no direct academic value express the lower degree of interest in completing PDP tasks.

Are you an undergraduate or postgraduate?			Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Undergraduate	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	9.210	.003	-2.448	476	.015	-.182	.075	-.329	-.036
		Equal variances not assumed			-2.353	248.509	.019	-.182	.078	-.335	-.030
Postgraduate	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	9.424	.002	-2.602	288	.010	-.250	.096	-.440	-.061
		Equal variances not assumed			-2.467	158.701	.015	-.250	.101	-.451	-.050

Table 64 Independent samples test of non-credit bearing activities recommended by lecturers' impact on PDP activities by level of study

4.7 Final year students

The researcher explored the potential differences between earlier and last year students.

An independent-samples t-test was conducted to compare need of PDP between earlier year students and last year students, separately. In support of the t-test at the .05 significance level, there was a significant difference in the scores for earlier year students who do not wish to do as lecturers ask (M=2.60, SD=0.80) and earlier year

students who do as lecturers ask (M=2.84, SD=0.77) conditions; t(225) = -3.02, p = 0.003 (see *Table 65 & Table 66*) d= -0.31. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=17.76, p=0.000. These results suggest that earlier year students who do not conform and earlier year students who do conform have significant difference on the need of PDP activities. There was not a significant difference in the scores for last year students who do not wish to do as lecturers ask (M=2.57, SD=0.85) and last year students who do as lecturers ask (M=2.75, SD=0.77) conditions; t(178) = -1.85, p = 0.066 (see *Table 65 & Table 66*) d= -0.22. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=5.09, p=0.025. These results suggest that last year students who do not conform and last year students who do conform do not have significant difference on the need of PDP activities.

Are you in the last year of your study programme?	I complete most activities that do not count credits towards my qualification, but lecturers ask to do.		N	Mean	Std. Deviation	Std. Error Mean
No	During this academic year, I need to engage in one or more PDP activities.	No	133	2.60	.797	.069
		Yes	280	2.84	.675	.040
Yes	During this academic year, I need to engage in one or more PDP activities.	No	104	2.57	.845	.083
		Yes	251	2.75	.774	.049

Table 65 Group statistics of non-credit bearing activities recommended by lecturers' impact on PDP activities by final year of study

Are you in the last year of your study programme?			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
No	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	17.764	.000	-3.199	411	.001	-.241	.075	-.390	-.093
		Equal variances not assumed			-3.016	224.859	.003	-.241	.080	-.399	-.084
Yes	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	5.086	.025	-1.916	353	.056	-.178	.093	-.360	.005
		Equal variances not assumed			-1.848	178.161	.066	-.178	.096	-.367	.012

Table 66 Independent samples test of non-credit bearing activities recommended by lecturers' impact on PDP activities by final year of study

According to the data, there is no notable difference between earlier and last year students when it comes to completing PDP tasks with no academic value. Additionally, there is no significant discrepancy between final year students who greatly appreciate PDP activities and those who pursue them less often. However, there is a difference among earlier year students when it comes to perceptions of PDP activities and their value beyond academic marks and scores. The earlier year students more likely follow their teachers' advice have higher degree to engage in PDP framework.

4.8 Secured post-graduation employment

This part of the study was conducted to determine the margin of potential difference and effect of post-graduation employment arrangement.

An independent-samples t-test was conducted to compare need of PDP between students who have employment arranged after graduation or those without, separately. In support of the t-test at the .05 significance level, there was a significant difference in the scores for students who have employment arranged after graduation and do not wish to do as lecturers ask (M=2.33, SD=0.97) and students who have employment arranged and do as lecturers ask (M=2.78, SD=0.81); $t(71) = -2.66$, $p = 0.010$ (see *Table 67 & Table 68*). Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=7.00, p=0.009. These results suggest that students who have employment arranged and do not conform and students who have employment arranged and do conform have a significant difference on the need of PDP activities. There was not a significant difference in the scores for students who have no employment and do not wish to do as lecturers ask (M=2.64, SD=0.77) and students who have no employment and do as lecturers ask (M=2.80, SD=0.71); $t(342) = -2.41$, $p = 0.017$ (see *Table 67 & Table 68*). Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=9.87, p=0.002. These results suggest that students who have no employment and do not conform and students who have no employment arranged and do conform have significant difference on the need of PDP activities.

Do you have employment arranged after graduation?	I complete most activities that do not count credits towards my qualification, but lecturers ask to do.		N	Mean	Std. Deviation	Std. Error Mean
Yes	During this academic year, I need to engage in one or more PDP activities.	No	43	2.33	.969	.148
		Yes	91	2.78	.814	.085
No	During this academic year, I need to engage in one or more PDP activities.	No	194	2.64	.770	.055
		Yes	440	2.80	.705	.034

Table 67 Group statistics of non-credit bearing activities recommended by lecturers' impact on PDP activities by post-graduation employment arrangement

The results show a significantly reduced degree of interest in PDP activities among students who have already secured employment. This makes sense as many learners may think they have less need for personal development once they have a clear path to follow. They consider that skill development initiatives will be tailored to them according to the needs of employers and circumstances of individuals (Cedefop, 2011). However often this is not the case, as PDP learning extends beyond academic support and actively contributes to decision making skills. Having secured a job it is no surprise that some students prefer to focus exclusively on academic (university grades) pursuits. Though, it should be stressed that there is a notable difference in thinking among the learners who do not have future employment. The mean value for this group is actually higher than for those who have secured a future job.

Do you have employment arranged after graduation?			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
Yes	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	6.999	.009	-2.836	132	.005	-.455	.160	-.772	-.138
		Equal variances not assumed			-2.664	70.978	.010	-.455	.171	-.795	-.114
No	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	9.870	.002	-2.489	632	.013	-.156	.063	-.278	-.033
		Equal variances not assumed			-2.406	341.625	.017	-.156	.065	-.283	-.028

Table 68 Independent samples test of non-credit bearing activities recommended by lecturers' impact on PDP activities by post-graduation employment arrangement

4.9 Previous employment experience

To explore the impact of prior employment experiences, the following experiment was issued.

An independent-samples t-test was conducted to compare need of PDP between

students who have prior employment and those without, separately. In support of the t-test at the .05 significance level, there was not a significant difference in the scores for students who have prior employment and do not wish to do as lecturers ask (M=2.56, SD=0.85) and students who have prior employment and do as lecturers ask (M=2.78, SD=0.77); $t(113) = -1.74$, $p = 0.084$ (see *Table 69 & Table 70*) d= -0.27. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=5.09, p=0.025. These results suggest that students who have prior employment and do not conform and students who have prior employment and do conform do not have significant difference on the need of PDP activities. There was a significant difference in the scores for students without prior employment and do not wish to do as lecturers ask (M=2.60, SD=0.81) and students without prior employment and do as lecturers ask (M=2.80, SD=0.71); $t(293) = -2.92$, $p = 0.004$ (*Table 69 & Table 70*) d= -0.26. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=14.38, p=0.000. These results suggest that students without prior employment who do not conform and students without prior employment who do conform have significant difference on the need of PDP activities.

Did you have employment before you started the university programme you are currently studying?	I complete most activities that do not count credits towards my qualification, but lecturers ask to do.		N	Mean	Std. Deviation	Std. Error Mean
Yes	During this academic year, I need to engage in one or more PDP activities.	No	64	2.56	.852	.107
		Yes	137	2.78	.774	.066
No	During this academic year, I need to engage in one or more PDP activities.	No	173	2.60	.806	.061
		Yes	394	2.80	.707	.036

Table 69 Group statistics of non-credit bearing activities recommended by lecturers'
impact on PDP activities by previous employment experience

It is noticeable that the level of interest among students with no previous work experience is statistically less, perhaps because they are not familiar with the need to think beyond the scope of their studies and consider career choices early. It feels more natural for these students to focus exclusively on their degrees and expect to go through these processes at a later point (Tomlinson, 2008). Of course, this is not usually the case as it is more practical for learners to start thinking about employment choices before they finish their studies (Lairio & Penttinen, 2006), providing them a chance to secure a job before they leave. Nevertheless, with no previous jobs for reference, this might be an unacknowledged priority for some learners. As such, it is perhaps normal that these students show a lower interest in completing PDP tasks with no perceived academic value.

Did you have employment before you started the university programme you are currently studying?			Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Yes	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	5.093	.025	-1.805	199	.073	-.219	.121	-.457	.020
		Equal variances not assumed			-1.743	113.105	.084	-.219	.125	-.467	.030
No	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	14.375	.000	-3.068	565	.002	-.207	.067	-.339	-.074
		Equal variances not assumed			-2.916	293.342	.004	-.207	.071	-.346	-.067

Table 70 Independent samples test of non-credit bearing activities recommended by lecturers' impact on PDP activities by previous employment experience

4.10 Guanxi (关系) and Western social network for students

4.10.1 Guanxi (关系) for Chinese students

As the impact of Guanxi has been considered in other parts of the study, it is necessary to determine its influence (if any) on willingness to complete PDP tasks.

An independent-samples t-test was conducted to compare need of PDP between Chinese students with strong Guanxi at home and those without, respectively. In support of the t-test at the .05 significance level, there was a significant difference in the scores for Chinese students without strong Guanxi and do not wish to do as lecturers ask (M=2.43, SD=0.82) and Chinese students who do not have strong Guanxi and do as lecturers ask (M=2.84, SD=0.72) conditions; t(120) = -3.22, p = 0.002 (see *Table 71 & Table 72*) d= -0.53. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=8.88, p=0.003. These results suggest that Chinese students who do not have strong Guanxi and do not conform and Chinese students who do not have strong Guanxi and do conform have significant difference on the need of PDP activities. There was not a significant difference in the scores for Chinese students who have strong Guanxi and do not wish to do as lecturers ask (M=2.60, SD=0.82) and Chinese students who have strong Guanxi and do as lecturers ask (M=2.70, SD=0.78) conditions; t(221) = -0.87, p = 0.386 (see *Table 71 & Table 72*) d= -0.12. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=1.47, p=0.226. These results suggest that Chinese students who have strong Guanxi and do not conform and Chinese students who have strong Guanxi and do conform do not have significant difference on the need of PDP activities.

My Guanxi (关系) at home can support me to get an employment in China after graduation.	I complete most activities that do not count credits towards my qualification, but lecturers ask to do.		N	Mean	Std. Deviation	Std. Error Mean
No	During this academic year, I need to engage in one or more PDP activities.	No	63	2.43	.817	.103
		Yes	97	2.84	.717	.073
Yes	During this academic year, I need to engage in one or more PDP activities.	No	70	2.60	.824	.098
		Yes	153	2.70	.779	.063

Table 71 Group statistics of non-credit bearing activities recommended by lecturers'

impact on PDP activities by Guanxi for Chinese students

Contrary to expectations, learners with no strong Guanxi connections (particularly back home in China) tend to show less willingness to complete these PDP activities. They are the ones in greater need of support, personal development, and career resources. The results show a total of 63 students with no Guanxi connections to fall back on. These individuals are most likely to disregard teaching advice and fail to complete PDP assignments. This seems like a poor attitude to hold, as the learners are missing out on vital opportunities that they may need more than peers with strong social connections.

My Guanxi (关系) at home can support me to get an employment in China after graduation.		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	
No	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	8.882	.003	-3.314	158	.001	-.406	.123	-.649	-.164
		Equal variances not assumed			-3.223	120.086	.002	-.406	.126	-.656	-.157
Yes	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	1.472	.226	-.868	221	.386	-.099	.114	-.325	.126
		Equal variances not assumed			-.850	127.321	.397	-.099	.117	-.331	.132

Table 72 Independent samples test of non-credit bearing activities recommended by lecturers' impact on PDP activities by Guanxi for Chinese students

4.10.2 Western social network for UK students

As mentioned in the discussion on Guanxi and Western social networks (WSN), WSN and Guanxi do share some common features, so it is therefore worthwhile to explore the impact of WSN in relation to PDP.

An independent-samples t-test was conducted to compare need of PDP between UK students do not intend to use WSN to obtain a job and those do not supposed to, respectively. In support of the t-test at the .05 significance level, there was no significant difference in the scores for UK students do not intend to obtain a job through WSN and do not wish to do as lecturers ask (M=2.60, SD=0.87) and UK students who do not intend to obtain a job through WSN and do as lecturers ask (M=2.83, SD=0.70) conditions; t(76) = -1.74, p = 0.085 (see *Table 73 & Table 74*) d= -0.29. Additionally, the assumption of homogeneity of variances was tested and violated via Levene's F test, F=10.27, p=0.002. These results suggest that UK students do not intend to obtain a job through WSN and do not conform and UK students do not intend to obtain a job through WSN and do conform do not have significant difference on the need of PDP activities. There was no significant difference in the scores for UK students intend to obtain a job through WSN and do not wish to do as lecturers ask (M=2.75, SD=0.74) and UK students who intend to obtain a job through WSN and do as lecturers ask (M=2.84, SD=0.69) conditions; t(190) = -0.81, p = 0.418 (see *Table 73 & Table 74*) d= -0.13. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.78, p=0.378. These results suggest that UK students intend to obtain a job through WSN and do not conform and UK students intend to obtain a job through WSN and do conform do not have significant difference on the need of PDP activities.

UK students that intend to obtain a job through their social networks and those who do not intend to use the social networks have a similar need for PDP, no matter how they reflect on the academics' recommendations. Even though WSN is powerful and useful, the individual still needs to show the capability to maintain a specific job role. This might be the reason that UK students always have the same degree of need for PDP.

Group Statistics

Do you think personal/social network is important for you to obtain a job?	I complete most activities that do not count credits towards my qualification, but lecturers ask to do.	N	Mean	Std. Deviation	Std. Error Mean
No	During this academic year, I need to engage in one or more PDP activities. No	52	2.60	.869	.121
	During this academic year, I need to engage in one or more PDP activities. Yes	141	2.83	.696	.059
Yes	During this academic year, I need to engage in one or more PDP activities. No	52	2.75	.738	.102
	During this academic year, I need to engage in one or more PDP activities. Yes	140	2.84	.692	.058

Table 73Group statistics of non-credit bearing activities recommended by lecturers'

impact on PDP activities by WSN for UK student

Independent Samples Test

Do you think personal/social network is important for you to obtain a job?			Levene's Test for Equality of Variances		t-test for Equality of Means						
									Std. Error Differen ce	95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2-tail ed)	Mean Differen ce		Lower	Upper
No	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	10.271	.002	-1.929	191	.055	-.234	.121	-.473	.005
		Equal variances not assumed			-1.743	76.460	.085	-.234	.134	-.501	.033
Yes	During this academic year, I need to engage in one or more PDP activities.	Equal variances assumed	.780	.378	-.812	190	.418	-.093	.114	-.319	.133
		Equal variances not assumed			-.788	86.394	.433	-.093	.118	-.327	.141

Table 74 Independent samples test of non-credit bearing activities recommended by lecturers' impact on PDP activities by WSN for UK student

4.11 Chapter summary

It is reasonable to assume that university teachers do not set assignments they deem useless, neither academically or personally. Every task is believed to have some value, whether it contributes to final grades or helps students learn about their own skills and abilities. Consequently, it's important to explore the reasons why some students question the validity of PDP assignments. Why do some types of learner choose to dismiss assignments even when teachers strongly recommend them?

Whether students feel it's pointless to devote time to purely personal pursuits or they believe PDP processes do not benefit them in any way, the fact is teachers set them for a reason. If they want to provide support and monitor those who are missing out on vital opportunities, there are some key demographics to observe. According to our data, female, part time, and Chinese learners are less likely to complete PDP processes. Similarly, those studying technical subjects like science, those with future employment, and those studying at junior and senior levels may also need extra encouragement. It is clear that these groups need to be incentivised in slightly different ways. Teachers should try to appeal to their specific situations, rather than expecting them to value development opportunities as highly as students in other groups (Dawson & Venville, 2010).

For example, it may be necessary to decrease the number of 'non-compulsory' tasks or enable PDP into modules and change the culture around PDP processes. When given the option to complete or dismiss these tasks, the students in the above mentioned groups are likely to choose the latter. Some may consider that it is superfluous to give them the option. If teachers know that the assignments are valuable, they could take control and make sure vital opportunities are not missed (Haugaløkken & Ramberg, 2007; Helsby & McCulloch, 1996). On the other hand, this could potentially limit

opportunities and unduly influence the freedoms and routines of students who are better

able to manage compulsory and optional tasks.

Chapter 5 Other results and discussions

5.1 Overview

The next set of results explore issues such as what features or characteristics might increase interest in PDP tasks, which aspects of PDP support employment choices, and whether or not peer pressure has an impact on willingness to engage. In other words, are students more likely to complete their PDP tasks if their friends do the same?

5.2 Preferred ways to engage in PDP activities

For contemporary students (see *Figure 10*), the internet is a primary source of career information and advice. The vast majority of learners seek advice online because it is straightforward, accessible, and diverse. Consequently, many universities now integrate PDP tasks with internet research. In most cases, this increases interest because students are already familiar with and enjoy spending time in online domains. According to statistics, internet research is the most preferred method of PDP learning. Approximately 49% of students would prefer to develop themselves through online resources. The reality of getting information from online database is much easier nowadays, therefore, not surprisingly, surfing online resource is the most popular method to engage in PDP. It has largely replaced the old fashioned method of face to face conversation, in which a qualified career advisor or consultant would sit down and have a direct chat with each student. Interestingly, this option does still exist in most universities, but it is accessed less often. It continues to be the second most popular form of PDP advice, though it should be noted that a Careers Office incorporates a great many forms of support. The traditional talk based ways of engaging in PDP are not too much less popular as 44% of the total students like to visit their Career Offices for

support. If a student does not want a direct chat, they can ask for a leaflet or talk with fellow students who have used the service. The third most preferable source of advice is within the family. Many students choose to discuss career options with their parents, grandparents, and siblings. Over 40% would like to discuss PDP with friends and/or family members. Others explore their options with the help of close friends. Some of the students would think about discussing PDP with other people from different backgrounds. Finally, the last popular source of PDP support is former colleagues. This is the case even among students who have previous employment experience. Of the forty learners with prior job experience, less than 20% (see *Table 75*) preferred to discuss future options with former colleagues.
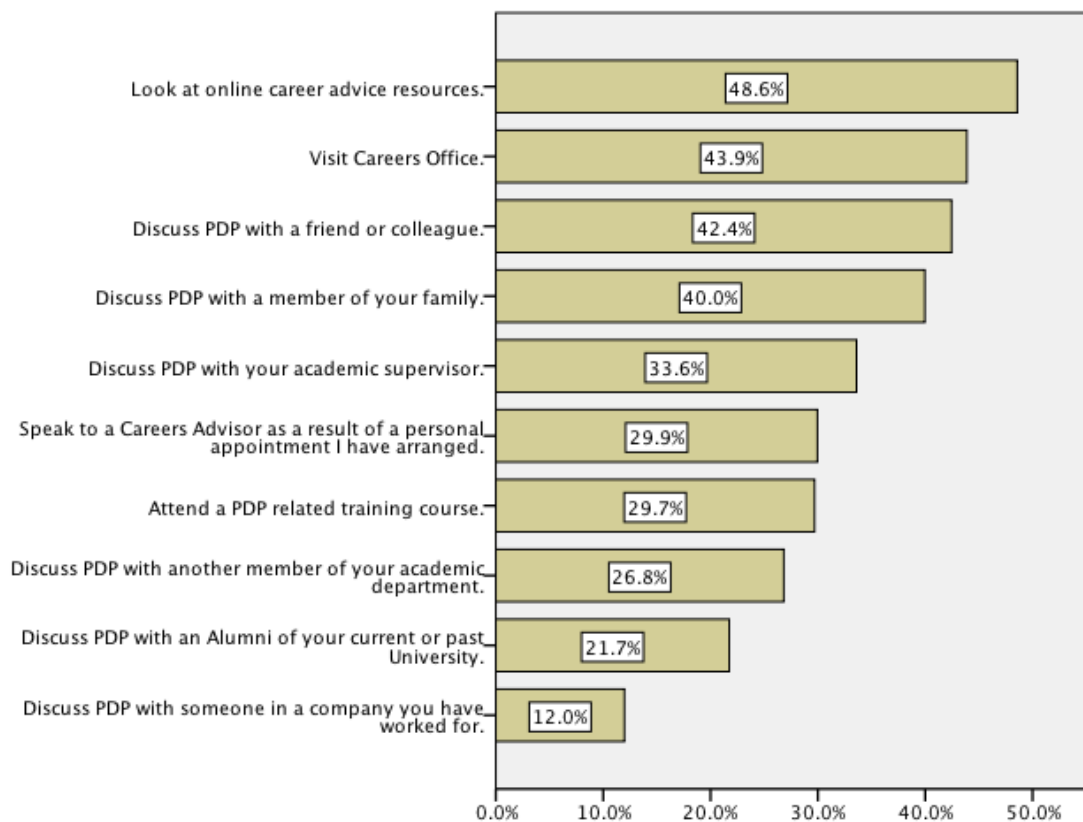

Figure 10 Preferred ways to engage in PDP activities

Did you have employment before you started the university programme you are currently studying?			Frequency	Percent	Valid Percent	Cumulative Percent
Yes	Valid	No	161	80.1	80.1	80.1
		Yes	40	19.9	19.9	100.0
		Total	201	100.0	100.0	

Table 75 Perception of students discuss PDP with former colleague

While the internet is a vast and hugely valuable resource, the problem is its variability. It is, of course, impossible for teachers to verify the accuracy of all websites and online resources. Therefore, there is no way to know for sure that students are receiving valid advice. They can recommend specific websites, but they have limited control over the content their learners consume. One solution to this problem could be a government approved domain. In fact, in the UK, many of these already exist, so the focus is on maintaining their quality and value. With a government endorsed hub, students would find it easy to access systematic, structured advice.

Career centres must maintain the quality of their resources, particularly when it comes to indirect support. There will always be students who prefer to read leaflets and brochures than speak to advisors, so the accuracy of these tools needs to be consistently high. Otherwise, unclear information could mislead the students or supply misty guidance. There should be an emphasis on catering to learners of all kinds, whether they are very social and happy to pursue direct contact or more comfortable with independent routes. As direct contact and conversations with trusted advisors are, by and large, the best forms of support, universities should make it easy to speak with authorities. Reminding and reinforcing with students the value of familial and friend support to help them make important decisions could also be beneficial. Above all, it is always important for students to receive and distinguish accurate information about PDP that can lead to a clear path, as inaccurate advice could result in poor allocation of resources and impairment to a future career.

It also worth noting the different degree on each element for engagement in PDP activities for students from the UK and China. With the exception of visiting the Careers Office, UK students have less interest in every other method than Chinese students (see *Figure 11*). The results from Chinese students and UK students show different perceptions of visiting the Career Office; 50% of UK students would like to visit the Career Office while only 38% Chinese students would. This maybe because the Career Office in UK universities is a mature mechanism, while Chinese universities are still exploring the development of a suitable equivalent for Chinese students (Chen, 2008). Therefore, Chinese students may not have enough trust in their Career Office and, as a result, we see this relatively low proportion of engagement. The majority of Chinese students intend to return and settle in China after graduation (Gill, 2010) so therefore they consider the information contained in leaflets and brochures in a UK Careers Office as useless to them. Online resources are much more convenient and comfortable for them to explore the Chinese labour market. PDP is a relatively new notion for Chinese students, and is considered in the simple term of improving employability skills and find 'graduate-level' employment. Chinese students therefore try to engage in these activities in a manner to benefit their future employment. Additionally, discussing PDP with family members has the greatest disparity between Chinese and UK students, which also reflects section 3.11.4, where approximately 51% of Chinese students would like to discuss PDP with their family. This could be a reflection that Guanxi is in effect during the job-seeking process. On the other hand, Chinese and UK students share the feature that they do not like to discuss PDP with prior colleagues. Few of them continue a relationship with former colleagues, discussion with former peers would often touch on current job opportunities, whereas the fact is they compete with one another in the labour market (Lindsay, Greig, & McQuaid, 2005). That makes discussing PDP with former colleagues, the least commonly chosen response.
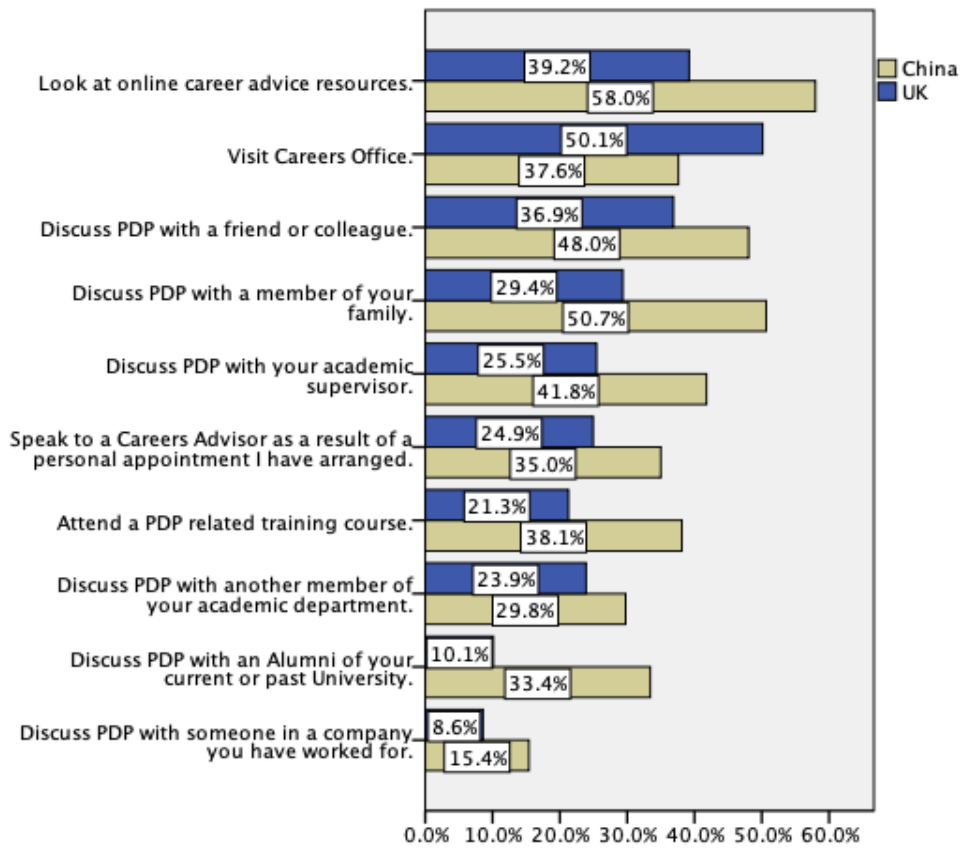
Figure 11 Preferred ways to engage in PDP activities for UK and Chinese students

5.3 Influence of personal factors in obtaining a job

Figure 12 explores which personal factors students believe are most integral to finding a job after university.
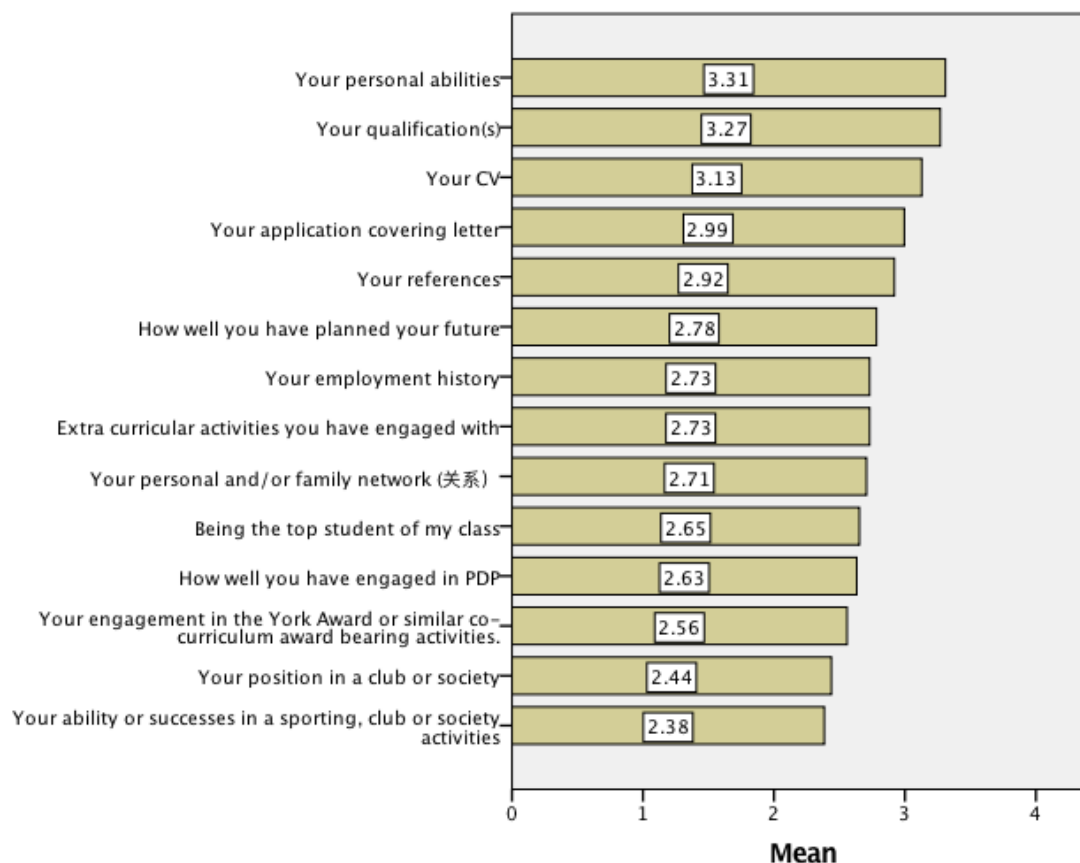
Figure 12 Students' perception of effects in obtaining employment

Perhaps unsurprisingly, most learners believe personal skill and ability has the biggest impact on employability. This is an interesting insight, however, because there is a sizeable proportion of students who do not willingly engage with the PDP activities designed to further these skills. Generally, personal abilities are equated with communication skills, teamwork, innovation, organisational skills, leadership, listening skills, and flexibility, among others. These are abilities that grow and develop at university, but they do not originate there. They are formed through daily experiences, both environmental and social. Such skills are not unique to university students and this is a good endorsement for the importance of PDP processes. Even if they do not count

towards the final grade, they have implications that extend beyond formal studies. Among the students who do not engage as willingly with PDP processes, there seems to be a lack of foresight. The students Tomlinson (2007, 2008) interviewed emphasised a lot on degree and credentials. They are squarely focused on achieving their academic goals, but they do not recognise the role of personal and social development when it comes to excelling within future roles.

Second on the list of priorities for job hunting is qualifications. Unsurprisingly, university students take their academic achievements very seriously. Most vehemently believe in the power of degree certification to secure them a top job after university. Perhaps, this is why they often show a lack of foresight and dismiss PDP opportunities without an academic element.

The third priority on the list is documentation. This refers to things like resumes, application forms, cover letters, and other types of employment paperwork. The students consider the documents to be important elements in job-seeking process (McKeown & Lindorff, 2011; Werbel, 2000). Certainly, without these documents, it is very difficult for a student to get a job. Even with impressive grades, an individual could lose out on top positions if they do not complete the right paperwork or submit it in the correct manner. This is another skill that has little relation to academic studies and a strong connection to PDP activities, services, support, and advice.

When it comes to the influence of Guanxi, it is necessary to consider the nature of future ambitions. Among Chinese students, its value is perceived to be greater if the plan is to return home to China and find employment. If the hope is securing a job in Britain, there is a lesser emphasis on Guanxi, because it is not a familiar concept in this culture. On the other hand, it is not invaluable as British employers utilise similar systems of influence. In many cases British employees rely on social networks to gain access to possible jobs and employers require applicants to submit the names of referees who will attest to their abilities and suitability for the role.

When considered from this broader perspective – Guanxi as endorsement from referees – 70% of Chinese students and 50% of British students believe it plays a vital part in securing employment (see *Table 76*).

Guanxi is important to obtain a job.

What is your current nationality?			Frequency	Percent	Valid Percent	Cumulative Percent
UK	Valid	No	193	50.1	50.1	50.1
		Yes	192	49.9	49.9	100.0
		Total	385	100.0	100.0	
China	Valid	No	113	29.5	29.5	29.5
		Yes	270	70.5	70.5	100.0
		Total	383	100.0	100.0	

Table 76 The degree of Guanxi in obtain a job.

5.4 Students engagement in PDP activities with friends

According to behavioural experts, it is common for men to show less trust in the abilities of their peers. They tend to be more personally oriented and less likely to base their decisions on what others are doing, even if those people are close friends (Buchan, Croson, & Solnick, 2008; Haselhuhn, Kennedy, Kray, Van Zant, & Schweitzer, 2015; Maddux & Brewer, 2005). Therefore, the chance of a male student participating in PDP processes simply because his friends are doing so is quite low. Females, on the other hand, are more collaborative. They enjoy working in teams and consistently seek the approval and validation of peers. For this reason, it can be theorised that female students are more likely to engage in PDP activities because their friends are engaged.

An independent-samples t-test was conducted to compare male and female students who engage in PDP activities because their friends do. There was not a significant difference in the scores for male students (M=2.59, SD=0.73) and female students (M=2.58, SD=0.69); t(766) = 0.17, p = 0.862 (see *Table 77 & Table 78*) d= 0.01. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=1.53, p=0.216. These results suggest that male students and female students have no significant difference and are equally likely or less likely to engage with PDP activities because their friends do.

	What is your gender?	N	Mean	Std. Deviation	Std. Error Mean
I will engage in PDP activities because of friends ask me to go with them.	Male	339	2.59	.734	.040
	Female	429	2.58	.685	.033

Table 77 Group statistics of gender impact on PDP activities due to friends' request

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
I will engage in PDP activities because of friends ask me to go with them.	Equal variances assumed	1.533	.216	.174	766	.862	.009	.051	-.092	.110
	Equal variances not assumed			.172	700.819	.863	.009	.052	-.093	.111

Table 78 Independent samples test of gender impact on PDP activities due to friends' request

The researcher was curious to find out where this gender discrepancy is maintained within the two cultural groups. In other words, does the finding remain the same when comparing males and females in the British and Chinese groups?

An independent-samples t-test was conducted to compare British male and British female students who will engage in PDP activities because their friends do. There was not a significant difference in the scores for British male students (M=2.62, SD=0.72) and British female students (M=2.62, SD=0.66); t(383) = -0.080 p = -0.937 (see *Table 79 & Table 80*) d= 0.00. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=2.01, p=0.157. These results suggest that British male students and British female students do not have significant difference and are equally likely or less likely to engage with PDP activities because their friends do.

Another independent-samples t-test was conducted to compare Chinese male and Chinese female students who will engage in PDP activities because their friends do. There was not a significant difference in the scores for Chinese male students (M=2.56, SD=0.75) and Chinese female students (M=2.53, SD=0.71); t(381) = 0.314, p = 0.753 (see *Table 79 & Table 80*) d= 0.04. Additionally, the assumption of homogeneity of variances was tested and satisfied via Levene's F test, F=0.30, p=0.587. These results suggest that Chinese male students and Chinese female students do not have significant difference and are equally likely or less likely to engage with PDP activities because their friends do.

These results partly show that Hypothesis 2 is not valid and, therefore, cannot be considered a truthful statement.

What is your current nationality?	What is your gender?		N	Mean	Std. Deviation	Std. Error Mean
UK	I will engage in PDP activities because of friends ask me to go with them.	Male	170	2.62	.722	.055
		Female	215	2.62	.657	.045
China	I will engage in PDP activities because of friends ask me to go with them.	Male	169	2.56	.747	.057
		Female	214	2.53	.710	.049

Table 79 Group statistics of gender impact on PDP activities due to friends' request by nationality

What is your current nationality?			Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
			F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
UK	I will engage in PDP activities because of friends ask me to go with them.	Equal variances assumed	2.008	.157	-.080	383	.937	-.006	.070	-.144	.133
		Equal variances not assumed			-.079	345.774	.937	-.006	.071	-.146	.135
China	I will engage in PDP activities because of friends ask me to go with them.	Equal variances assumed	.296	.587	.314	381	.753	.024	.075	-.123	.170
		Equal variances not assumed			.313	351.877	.755	.024	.075	-.124	.171

Table 80 Independent samples test of gender impact on PDP activities due to friends' request by nationality

5.5 Understanding of the concepts of career planning and PDP

PDP and career planning terminology are often interchanged and the majority of students consider PDP an awareness of the need for planning career development (Day, 1994). It is a progression of the planning and recording of careers guidance reviews and the influence of one-to-one discussion (Bullock & Jamieson, 1998). A successful career should maintain personal development (Rothwell, Jackson, Ressler, Jones, & Brower, 2015). Therefore it is considered that personal development planning and career planning intersect.

Career planning is part of PDP.

PDP is part of Career planning			Frequency	Percent	Valid Percent	Cumulative Percent
No	Valid	No	72	42.6	42.6	42.6
		Yes	97	57.4	57.4	100.0
		Total	169	100.0	100.0	
Yes	Valid	No	69	11.5	11.5	11.5
		Yes	530	88.5	88.5	100.0
		Total	599	100.0	100.0	

Table 81 Are career planning and PDP the same thing

The researcher asked several questions about the nature of PDP processes to try and determine whether students fully understand their purpose. These queries focus on the contribution of PDP to career planning and employability. *Table 81* shows that in total, 97 respondents stated that career planning is an aspect of PDP and not the other way around. Alternatively, 69 students stated that PDP is an aspect of career planning and not the other way around. There were 72 students who believed career planning and PDP are entirely distinct and separate resources. The overwhelming majority of

students (530) believed that PDP and career planning share some common features. This also conform to the theories.

5.6 Chapter summary

This chapter introduced some other findings from this study. The students' preferred ways to engage in PDP and the discrepancy of ways that Chinese and UK students take personal development were explored. The elements important to finding employment were then rated by the students. Possible gender difference on engagement in PDP activities with friends was examined between male and female students. A general investigation of students' understanding of the terms Career Planning and PDP was addressed. The next chapter will conclude this study.

Chapter 6 Conclusion

Employability is a concept among economy, sociology and education from the beginning of the last century. With the rapid development of information technology in the last two decades, a number of workers have been replaced by higher automation machines. This further requires job-seekers to improve their employability to restrain the employment uncertainty. The United Kingdom observed the necessity of employability and then pushed it to the European states in the late 1990s. The United Nations (UN) also addressed employability as one of its four priorities for national policy action on youth employment in the beginning of 21st century (NATIONS), 2001) and suggestions were made to all countries. Australia then linked employability specifically into engineering education with an industrial background (Curtis & McKenzie, 2001). A series of studies about engineering education and employability skills were conducted in Malaysia a few years later. However, the Chinese government seems to have failed to popularised this concept within the country. This may cause the difference between Chinese people and Western people in this regard.

Over more than a century of evolution, employability now represents to a particular set of skills, knowledge, qualities and competencies to meet the requirements of a potential work. There are several ways of defining employability, however, they all emphasized the individual to obtain a fulfilling employment. Within the labour market, the employers anxiously expect the individuals to be well prepared enough employability skills, especially the new graduates. Therefore, the commercial demand pushes universities to make effort to train the students to be 'employable'. In order to do so, the universities are suggested to deliver employability through Personal Development Planning (PDP) in association with Progress Files (PF).

This study has reviewed the background, definition, benefits and purpose of PDP. Most PDP activities are the opportunities not included in the teaching curriculum, but for

students to meet a wide range of people, to learn skills, to engage in new activities, to manage positions of responsibility and broaden their outlook. However, PDP is not only focused on the success of a career, but also benefits the individual's academic performance, personal life and professional life. Such activities emphasis the improvement of skills or others that hardly record in formal transcripts. However, PF can assist the individual to review and assess the development. Meanwhile, this is also helpful to enrich a personal statement or CV.

The notion of the Progress File (or portfolio) focuses on recording achievement in higher education support and structure self-development all throughout life. It is not only the official transcript of marks, but also record personal achievements, review progress and select plans to assist PDP in the future.

The relationship between employability, PDP and PF is interdependent. Both PDP and PF are responsible for employability, PDP is the action to develop employability skills and PF is the record of achievement gained through the process. At the same time, employability encourages the universities to organise PDP activities in promoting the ability of graduates, while PF keeps a record of the engagement of in those activities and supplies the information on progress for students to determine their next step.

Higher education institutions have supplied the opportunity for students to engage in PDP. In assisting that, the academics also play a part in this routine. The suggestions from lectures could guide the students to develop themselves in other fields, however, some students may consider that as the activities do not count as credit towards their degree, as a result they might not follow such guidance from the academics.

As UK higher education continues industrialization, more and more international students choose to study there. That requires that UK HEIs should not only focus on the local students, but also tailor personal development plans for their international students. Over 15% of international students in the UK are from China, and this amount

has been the highest percentage for years (HESA, 2015). It is forecast that this situation will last until at least the year 2024 (Malik, 2014). The majority of Chinese students intend to return to work in China (Huang et al., 2014). With this background, this study draws upon the comparison between Chinese and UK students who study in the UK.

UK and Chinese people are driven by different cultures. According to Hofstede, the decision making process is impacted by the overall cultural environment (Hofstede, 1980a). This further causes the diversity in engagement with PDP for the students from these two nationalities. Chinese society has been guided by Confucianism for over 2,000 years and an outcome because of its heavy influence is Guanxi. It seems to be the lifeblood of Chinese society. With the help of Guanxi, there could be a lesser need for PDP, as the proper Guanxi will support an individual to gain employment.

This study adopted a quantitative approach to identify the general situation of the students' perception from different groups. A total number of 768 students participated in this research; their background information and perceptions provided massive data. This enables the researcher to explore every effect that may cause a statistical difference; including aspects such as male or female, full time or part time, science or other students, undergraduates or postgraduates, students who are in their last year of study programme or earlier years, students who have employment arranged after graduation and those who do not, students who have prior employment experience and those who do not. Within the above groups, these were further separated by nationalities to compare students from UK and China in more detail. To ensure the research is reliable and valid to test the research objects, a prospective experimental cross-sessional study was applied. Furthermore, Guanxi's impact on students from China was investigated in the research process.

The findings address that UK and Chinese students in UK higher education intuitions have significantly different view on PDP activities. The Chinese students are statistically less likely to engage in PDP than UK students. This further proves Chinese

students lack of awareness of PDP. It is worth considering that employability in China seems to only exists in academia despite a 18-year worldwide campaign by the United Nations. There is no statistical difference in other ways of grouping. However, the researcher notices that when the students are separated by nationality in those groups, the means of Chinese students are numerically lower than the groups of UK students in every respect. These data emphasize that culture has been an effect on the engagement of PDP activities. The results suggest that the Chinese government and Chinese universities should make more efforts to popularize the concept of employability among society and developing the students' employability skills. In order to do so, the experience from the UK is valuable for Chinese policy-makers. On the other hand, it is good to see that Chinese students who do have Guanxi at home justify PDP with the same level of importance as Chinese students who do not have Guanxi. In the contexts with section 1.7, although Guanxi does not impact the perceptions of PDP, it still plays a vital role in Chinese society. The results that Chinese students who have Guanxi at home are significantly more likely to discuss PDP with family members makes it more than possible for them to achieve their career goal (see section 3.11.4). In recent years, Guanxi has lost some power due to the competition of the labour market in China due to the government supervision. However, on the basis of moderately equal employability skills among competitors, those who have Guanxi support will easily win the game as the recruitment team will choose the individuals who have the strongest Guanxi. At last, the correlation between age and level of study suggests a considerable amount of students take part in PhD study programmes during the ages of over 25 years. They show the lesser need for PDP activities among students in other age groups, because they prefer to focus on their academic programme and consider the credential of formal education to be the most important (Tomlinson, 2007, 2008).

This study also investigated the perception of following the lecturers' suggestions for activities that do not earn credit towards their qualification. Approximately 31% of students would not like to complete most activities that do not link to their formal marks despite academics' advising them to do so. An investigation was conducted to

see who was likely to ignore the lecturers' guidance and whether they have a different need for PDP activities or not. In the contexts of section 4.1,these students have significantly less need for PDP activities than the other students who would be more likely to follow the lecturers' guidance, even with activities that do not count toward credit. The researcher then identified that these 31% of students are largely Chinese students who, for the most part, do not participate in activities that do not count toward credit but are recommended by lecturers, and these students do have statistically less need for PDP than the others. Nevertheless, the students who have Guanxi at home do not show significantly less need for PDP. In contrast, those who do not have Guanxi at home and do not want to follow suggestions by lecturers have less need for PDP. It therefore expresses that Guanxi sets up a goal for the students and encourages them to improve their employability level in order to match the requirement of the labour market at some point. The results further suggest those students have significantly less need for PDP and do not complete most activities that lecturers suggest but do not count credit towards their qualifications are female students; part-time students; science students; students who are not in their year of graduation; and students who do not have prior employment experience. These results also suggest the academics might need to consider their ways of expressing information about advices, especially as there are a number of students from the above groups.

It is important to find popular methods for engaging in PDP. Online resources are the most preferred for students to develop themselves, however, there seems to be a controversy in preference between students from the UK and China. Chinese students retain a high enthusiasm to explore information from online databases, whereas British students prefer to visit their Careers Office to talk with authorized advisors or to pick up leaflets and brochures. The biggest discrepancy between the two groups is that Chinese students would ask for PDP advice from their family, while UK students are unlikely to do that. There is a common feature between UK and Chinese students is that they have the lowest desire to discuss PDP with former colleagues.

In the students' perception, personal ability is the most key in obtaining employment, which is transferable with personal skills that include a list of generic skills: organizational skills, communication skills, leadership, innovation, learning ability, calling, adaptability and so on. This also reflects to employability skills, which shows students' realisation of significance of PDP activities. Meanwhile, specially planning for the future and engagement in PDP are relatively less people mentioned. That indicates students are looking more into the outcome rather than the process. It is worthy it for them to think about how to improve their personal abilities. The second most preferred choice is the qualifications; students obviously treat their degree certificate and other sorts of qualifications as 'a stepping-stone' to show the labour market that they are capable of certain employment. Besides, they also think CVs and covering letters are necessary to impress employers. This situation might suggest that the HEIs make more efforts to empower the students' understandings of PDP as responsible for higher-level personal abilities. Students also believe that deliberate trainings on producing nice paperwork are necessary.

In the last a couple of years, there have been a number of studies dedicated to the topics such as e-PDP, e-portfolio and sustainable employability, however they have often failed to focus meaningfully on the employability of non-UK students. However, the number of non-UK students is increasing each year due to the successful industrialization of UK higher education institutions. As such, the UK universities should be responsible for the welfare of students from other country, encouraging not only UK students but also non-UK students to develop their employability. Under the time and economic limitations, this PhD project could only focus on the largest number of international students and the researcher's homeland – Chinese and the UK students.

This thesis is dedicated to helping Chinese students to develop employability skills in order to succeed in UK HEIs and beyond by delivering information about students' perceptions of engagement of PDP activities as well as suggestions are also supplied. However, the enormous amount of data collected was not fully transcribed. There are

still more data to dig through and analyse in the future. Furthermore, some quantitative data must be combined with qualitative in-depth interviews to explore the motivations of these groups of students. The basis for this study is that until at least 2024 as the increasing population of Chinese students in the UK (see section 2.9) will be significant and the information collected and shared through this study will remain valid and useful. It will be helpful for the UK HEIs to utilize all data from this study and there is also opportunity for PDP pedagogy framework development to be tailored for each type of student.

Future work

As discussed in the last two paragraphs, this research focus on Chinese and British students. Although Chinese students are the largest group of international students in the UK, there are also large number of students from other ethnic groups studying in the UK HEIs, such as: Pakistanis and Indians, Arabians, Africans, and so on. It is worth conducting a number of further researches to investigate the landscape of their needs of PDP. Data obtained from these investigations will be useful to inform the design of PDP activities for each ethnic group in the UK HEIs.

Meanwhile, as a quantitative research, the results could only reflect the possibilities of the current situation. However, the questionnaire responses did not offer insights into why the students hold different views regarding the same concept and how they have reached their decisions. More longitudinal qualitative research can be conducted to interview students from different ethnic and cultural backgrounds. This will help the UK HEIs to understand the underlying reasons when selecting appropriate approaches to better serve a variety of students' needs in the future.

Appendices

Appendix 1 General Investigation of Engagement of Personal Development Planning

This survey is asking you to participate in a survey of about your view of engagement of Personal Development Planning. **The following questionnaire should take around 10 minutes**.

Participation in this study is voluntary and you have the right not to answer any question or item, or to withdraw your consent and terminate participation at any time.

This study is aiming to help the author with his PhD research project. The outcome could give some idea of learning how to encourage the students engaging in PDP activities; which could finally help the students increase the understanding of the effect of PDP.

This research is located in University of York.

This survey is taken anonymous. Your name and student number will not be asked. Your personal details are confidential in this study.

****

By continuing, I agree to participate voluntarily in a survey of attitudes about university courses of study and career interests. I understand the research purpose of the survey and the protection that will be given to any information I provide. I understand that any information provided by me will remain confidential with regard to my identity. I also understand that by participating in

this study I am not waiving any of my legal rights.

I have been informed that I may contact Feiyue Ji in the Department of Electronics on 01904 324726 or internal extension 4726 or by email at fj525@york.ac.uk.

This questionnaire is a work product of the PhD research project of Feiyue Ji. Do not copy or otherwise use the material without permission.

Please read the instructions for each of the following questions. Review the response options carefully before you mark your answers. There are no right or wrong answers. Answer the questions as quickly and honestly as possible.

Terminology:

PDP: Personal Development Planning is "a structured and supported process undertaken by an individual to reflect upon their own learning, performance and/or achievement, and to plan for their personal, educational and career development". [1]

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[1] N. Jackson, "Personal development planning: what does it mean," Higher Education Academy, http://www.heacademy.ac.uk/ourwork/teachingandlearning, 2001.

1. How old were you at your last birthday? _____

2. What is your gender?   *(Circle only one response)* Male/ Female

3. Are you a science student or not? *(Circle only one response)*   Yes/No.

4. Which of the following best describes your study programme: *(Circle only one response)* Undergraduate/ Taught postgraduate/ Research postgraduate (Masters or PhD)

5. Are you currently in the year of graduation? *(Circle only one response)* Yes/No.

6. What is your present nationality? *(Circle only one response)*

UK/ China

7. Do you have prior employment before you started the current university programme? *(Circle only one response)* Yes/No.

8. Do you already have employment arranged after graduation? *(Circle only one response)* Yes/No.

9. Are you currently on study leave from your employer and will be returning to that employer when you finish? *(Circle only one response)* Yes/No, I do not intend to return to that employer.

10. If you are currently on study leave, does your employer consider PDP to be an important objective of your study? *(Circle only one response)*   Yes/No/Do not know.

11. To what extent, do you agree with the following question?

During this academic year, I need to engage in one or more PDP activities. *(Circle only one response)*

Strongly disagree   Disagree   Agree   Strongly agree

12. For Chinese students, do you agree with the following question?

My Guanxi at home can support me to get an employment in China after graduation. *(Circle only one response)*

Strongly disagree   Disagree   Agree   Strongly agree

13. Where do you plan to get an employment after graduation? *(Circle only one response)* UK/ China

14. For Chinese students who intend to get an employment in the UK, do you agree with the following question?

My Guanxi at home can support me to get an employment in the UK after graduation. *(Circle only one response)*

Strongly disagree   Disagree   Agree   Strongly agree

15. Which of the following ways do you prefer to engage in PDP activities? (Please tick all that apply)

Visit Careers Office.

Speak to a Careers Advisor as a result of a personal appointment.

Look at online career advice resources.

Attend a PDP related training course.

Discuss PDP with your academic supervisor.

Discuss PDP with another member of your academic department.

Discuss PDP with a friend or colleague.

Discuss PDP with a member of your family.

Discuss PDP with an Alumni of your current or past University.

Discuss PDP with someone in a company you have worked for.

16. Do you agree with the following question?

I will engage in PDP activities because one of my friends asks me to go together.

Strongly disagree   Disagree   Agree   Strongly agree

17. How important are the following for you to obtain a job? *(Circle only one response)*

Very unimportant   Unimportant   Important   Very important

Your personal abilities   1   2   3   4

Your qualification(s)   1   2   3   4

Your personal and/or family network   1   2   3   4

Your employment history   1   2   3   4

Your CV   1   2   3   4

Your application covering letter   1   2   3   4

Your references   1   2   3   4

How well you have planned your future   1   2   3   4

How well you have engaged in PDP   1   2   3   4

Your ability or successes in a sporting, club or society activities   1   2   3   4

Your position in a club or society   1   2   3   4

Extra curricular activities you have engaged with   1   2   3   4

Your engagement in the York Award or similar co-curriculum award bearing activities

1   2   3   4

Please answer the following general questions:

1. Do you agree with the following questions?

PDP is part of Career Planning. *(Circle only one response)*

Strongly disagree   Disagree   Agree   Strongly agree

2. I complete activities lecturers ask me to do that do not count towards my qualification. *(Circle only one response)*

Strongly disagree   Disagree   Agree   Strongly agree

Version 05/11/15

(This questionnaire will finally use Qualtrics in an electronic version.)

Appendix 2　General Investigation of Engagement with Personal Development Planning

This questionnaire is for students from either the **UK** or **China** who study in UK Higher Education Institutions. If you are not from the UK or China, thank you for your wish to participate.

You are invited to participate in a survey of your engagement with Personal Development Planning (PDP). **This following questionnaire should take around 10 minutes.**

Participation in this study is voluntary and you have the right not to answer any question or item, or to withdraw your consent and terminate participation at any time.

This study aims to help the author with his PhD research project. The outcome will be used to bring a clearer idea about how to encourage engagement in PDP activities, which enables students to have a better understanding of the benefit of PDP.

This research is located in the University of York.

This survey is taken anonymously. Your name and student number will not be asked. The confidentiality of information in this study is ensured.

By continuing, I agree to participate voluntarily in a survey of attitudes about aspects of personal development planning and career interests. I understand the research purpose of the survey and the protection that will be given to any information I provide. I understand that any information provided by me will remain confidential with regard to my identity. I also understand that by participating in this study I am not waiving any of my legal rights.

I have been informed that I may contact Feiyue Ji in the Department of Electronics on 01904 324726 or internal extension 4726 or by email at fj525@york.ac.uk, if I have questions or comments about this survey.

This questionnaire is a work product of the PhD research project of Feiyue Ji. Do not copy or otherwise use the material without permission.

Please read the instructions for each of the following questions. Review the response options carefully before you mark your answers. There are no right or wrong answers. Answer the questions as quickly and honestly as possible.

Terminology:

PDP: Personal Development Planning is "a structured and supported process undertaken by an individual to reflect upon their own learning, performance and/or achievement, and to plan for their personal, educational and career development" (Jackson, 2001).

York Award: The York Award is an award given by the University of York to students who demonstrate through a portfolio, that they have engaged in development of the employability skills during the time at York.

Q1 How old were you at your last birthday?

_____

Q2 What is your gender?

❍ Male

❍ Female

Q3 Are you a science [2] student or not?

[*2] According to UK Higher Education Statistics Agency, science refer to Medicine & dentistry, Subjects allied to medicine, Biological science, Veterinary, Agriculture & related subjects, Physical science, Mathematical science, Computer science, Engineering & technology, Architecture, building & planning.   Other: Social studies, Law, Business & administrative studies, Mass communications & documentation, Languages, Historical & philosophical studies, Creative arts & design, Education, Combined.*

❍ Yes

❍ No

Q4 Which of the following best describes your study programme:

❍ Undergraduate

❍ Taught masters

❍ Research masters

❍ PhD

Q5 What year are you currently in your study programme? (If your programme is one year programme, answer "1")

Year _____

Q6 How long is your study programme?

_____ Years

Q7 What is your mode of study?

❍ Full time

❍ Part time

Q8 Do you have employment arranged after graduation?

❍ Yes

❍ No

Q9 Did you have employment before you started the university programme you are currently studying?

❍ Yes (if answer "Yes", go to Q9.1)

❍ No (if answer "No", go to Q10)

Q9.1 Did your employer consider personal development planning (PDP) to be an important objective of your study?

❍ Yes

❍ No

❍ Do not know

Q10 Are you currently on study leave from your employer and will return to that employer when you finish?

❍ Yes (if answer "Yes", go to Q10.1)

❍ No (if answer "No", go to Q11)

Q10.1 Do you wish to return to the employer?

❍ Yes (if answer "Yes", go to Q10.2)

❍ No (if answer "No", go to Q11)

Q10.2 Does your employer consider personal development planning (PDP) to be an important objective of your study?

❍ Yes

❍ No

❍ Do not know

Q11 To what extent, do you agree with the following question?

During this academic year, I need to engage in one or more PDP activities.

❍ Strongly disagree

❍ Disagree

❍ Agree

❍ Strongly agree

Q12 What is your current nationality?

❍ UK (If this is selected, go to Q13)

❍ China (If this is selected, go to QC 1&2)

QC1 To what extent, do you agree with the following question?

My Guanxi (关系) at home can support me to get an employment in China after graduation.

○ Strongly disagree

○ Disagree

○ Agree

○ Strongly agree

QC2 My Guanxi(关系) at home can support me to get an employment in the UK or any other country after graduation.

○ Strongly disagree

○ Disagree

○ Agree

○ Strongly agree

Q13 Which of the following ways do you prefer to engage in PDP activities? (Please tick all that apply)

❑ Visit Careers Office.

❑ Speak to a Careers Advisor as a result of a personal appointment I have arranged.

❑ Look at online career advice resources.

❑ Attend a PDP related training course.

❑ Discuss PDP with your academic supervisor.

❑ Discuss PDP with another member of your academic department.

❑ Discuss PDP with a friend or colleague.

❑ Discuss PDP with a member of your family.

❑ Discuss PDP with an Alumni of your current or past University.

❑ Discuss PDP with someone in a company you have worked for.

Q14 How important are the following aspects for you to obtain a job?

	Very unimportant	Unimportant	Important	Very important
Your personal abilities	○	○	○	○
Your qualification(s)	○	○	○	○
Your personal and/or family network (关系)	○	○	○	○
Your employment history	○	○	○	○
Your CV	○	○	○	○
Your application	○	○	○	○

covering letter				
Your references	○	○	○	○
How well you have planned your future	○	○	○	○
How well you have engaged in PDP	○	○	○	○
Your ability or successes in a sporting, club or society activities	○	○	○	○
Your position in a club or society	○	○	○	○
Extra curricular activities you have engaged with	○	○	○	○
Being the top student of my class	○	○	○	○
Your engagement in the York Award or similar co-curriculum award bearing activities.	○	○	○	○

Please answer the following general questions:

GQ1 Do you agree with the following questions?

    PDP is part of Career Planning.

◯ Strongly disagree

◯ Disagree

◯ Agree

◯ Strongly agree

GQ2 I complete most activities that do not count credits towards my qualification, but lecturers ask me to do.

◯ Strongly disagree

◯ Disagree

◯ Agree

◯ Strongly agree

GQ3 To what extent, do you agree with the following question?

I will engage in PDP activities because one of my friends asks me to go with them.

◯ Strongly disagree

◯ Disagree

◯ Agree

◯ Strongly agree

GQ4 Do you agree with the following questions?

    Career Planning is part of PDP.

◯ Strongly disagree

◯ Disagree

◯ Agree

◯ Strongly agree

Appendix 3 Ethical approval

THE UNIVERSITY *of York*

Application Form for Physical Sciences Ethics Committee Approval

Advice for applicants on completing the form

Please ensure that the information provided is:
- *Accurate and concise*
- *Clear and simple and easily understood by a lay person*
- *Free of jargon, technical terms and abbreviations*

Further advice and information can be obtained from your departmental representative on the PSEC and at: http://www.york.ac.uk/admin/aso/ethics/cttee.htm

Please return completed form to your departmental representative:

Dr Kanapathippillai Cumanan, Department of Electronics

Title of project: Employability Research- Is there a difference in the engagement in employability between Chinese and UK students?

SECTION 1 DETAILS OF APPLICANTS

Details of principal investigator (name, appointment and qualifications)

Feiyue Ji: 4th year PhD student in Engineering Education and Management Group

Names, appointments and qualifications of additional investigators *(student applicants should include their project supervisor(s) here)*

Tony Ward: Professor in Engineering Management

19th March 2014

Location(s) of project

> University of York

SECTION 2 FUNDERS

What is the funding source(s) for the project?

> Myself.

Please answer the following:

(i)   Does the express and direct aim of the research or other activity raise ethical issues?

| YES | | | NO | √ |

(ii)   Is there any obvious or inevitable adaptation of research findings to ethically questionable aims?

| YES | | | NO | √ |

(iii)   Is the work being funded by organisations tainted by ethically questionable activities?

| YES | | | NO | √ |

(iv)   Are there any restrictions on academic freedoms – notably, to adapt and withdraw from ongoing research, and to publish findings?

| YES | | | NO | √ |

If you answered **Yes** to any of the above, please give details below:

19th March 2014

SECTION 3 DETAILS OF PROJECT OR OTHER ACTIVITY

Aims (100 words max)

This project is exploring educational and cultural background between Chinese and UK students as their difference of engaging in employability activities. One of the outputs of this research will be indications of how best the different student groups can be encouraged to engage in employability activities.

Background (250 words max)

Employability is the capability that makes a person more likely to choose and secure occupations in which they can be satisfied and successful. Components of this concept include Personal Development Planning (PDP) and the Progress File (PF). UKQAA (stands for all UK Higher Education Institutions) consider it is necessary for students to develop their employability skills through PDP activities and maintain a record of their achievements through PF. There are differences between Chinese and UK students caused by the different educational and cultural background. Especially, the existence of "Guanxi"(personal network) is worth to investigate.

19th March 2014

Brief outline of project/activity (250 words max)

This project intends to explore the background of employability and its components – Personal Development Planning (PDP) and Progress Files (PF). Existing theories of employability will be discussed. This study will adopt quantitative approach. PDP and PF Data will be collected through questionnaire by using Qualtrics online.

Study design *(if relevant – e.g. randomised control trial; laboratory-based)*

Quantitative research adopts questionnaire will apply in this study. Students will randomly participate in this questionnaire.

If the study involves participants, how many will be recruited?
383 Chinese students and 385 UK students will be needed.

If applicable, what is the statistical power of the study, i.e. what is the justification for the number of participants needed?

The number of participates are calculated according to the total number of Chinese and UK students who study in UK HEIS.

19th March 2014

SECTION 4 RECRUITMENT OF PARTICIPANTS

How will the participants be recruited?

> With the assistance of UK CSSA and NUS.

What are the inclusion/exclusion criteria?

> This study will only need Chinese and UK students who study in UK HEIS.

Will participants be paid reimbursement of expenses?　　YES [　]　　NO [√]

Will participants be paid?　　YES [　]　　NO [√]

If yes, please obtain signed agreement

Will any of the participants be students?　　YES [√]　　NO [　]

19th March 2014

SECTION 5 DATA STORAGE AND TRANSMISSION

If the research will involve storing personal data, including sensitive data, on any of the following please indicate so and provide further details (answers only required if *personal data is to be stored*).

Manual files	
University computers	
Home or other personal computers	
Laptop computers, tablets	
Website	

Please explain the measures in place to ensure data confidentiality, including whether encryption or other methods of anonymisation will be used.

> The data will only be stored in personal memory disk offline in *.sav* format. The questionnaire is an anonymous answered as the participants answering this by Qualtrics without leaving names or student numbers.

Please detail who will have access to the data generated by the study.

> The researcher: Feiyue Ji   Supervisor: Tony Ward
>
> TAP: Noel Jackson

Please detail who will have control of and act as custodian for, data generated by the study.

> Feiyue Ji

Please explain where, and by whom, data will be analysed.

> Data of this research will be analyzed by Feiyue Ji only.

Please give details of data storage arrangements, including where data will be stored, how long for, and in what form.

> The data of this study will be stored in personal memory disk for 2 years.

19th March 2014

SECTION 6 CONSENT

Is written consent to be obtained? | YES | √ | | NO | |

If yes, please attach a copy of the information for participants

If no, please justify

Will any of the participants be from one of the following vulnerable groups?

Children under 18	YES		NO	√
People with learning difficulties	YES		NO	√
People who are unconscious or severely ill	YES		NO	√
People with mental illness	YES		NO	√
NHS patients	YES		NO	√
Other vulnerable groups (if 'yes', please give details)	YES		NO	√

If so, what special arrangements have been made for getting consent?

| |
| |

SECTION 7 DETAILS OF INTERVENTIONS

Indicate whether the study involves procedures which:

Involve taking bodily samples	YES		NO	√
Are physically invasive	YES		NO	√
Are designed to be challenging/disturbing (physically or psychologically)	YES		NO	√

If so, please list those procedures to which participants will be exposed:

List any potential hazards:

19th March 2014

List any discomfort or distress:

What steps will be taken to safeguard

(i)   the confidentiality of information

The results will be stored in personal memory disk offline.

(ii)   the specimens themselves?

The participates will complete the questionnaire anonymously.

What particular ethical problems or considerations are raised by the proposed study?

N/A

What do you anticipate will be the output from the study? *Tick those that apply:*

Peer-reviewed publications	√
Non-peer-reviewed publications	
Reports for sponsor	
Confidential reports	
Presentation at meetings	√
Press releases	

Is there a secrecy clause to the research?   YES | | NO | √ |
If yes, please give details below

19th March 2014

SECTION 8 SIGNATURES

The information in this form is accurate to best of my knowledge and belief and I take full responsibility for it.

I agree to advise of any adverse or unexpected events that may occur during this project, to seek approval for any significant protocol amendments and to provide interim and final reports. I also agree to advise the Ethics Committee if the study is withdrawn or not completed.

Signature of Investigator(s):   ………Feiyue Ji……………………………………………

                                                        ……………………………………………………

Date: ………05/08/2017……………………………………………

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┌─────────────────────────────────────────────────────────────────────┐
│ Responsibilities of the Principal Researcher following approval       │
│ •   If changes to procedures are proposed, please notify the Ethics   │
│     Committee                                                         │
│ •   Report promptly any adverse events involving risk to participants │
└─────────────────────────────────────────────────────────────────────┘
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19th March 2014

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