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Language Proficiency and the International Postgraduate Student Experience

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ABSTRACT

In an increasingly competitive environment, with reduced government funding, full fee-paying international students are an important source of revenue for higher education institutions (HEIs). Although many previous studies have focused on the role of English language proficiency on academic success, there is little known about the extent to which levels of English language proficiency affect these non-native English speaking students' overall course experience. There have been a wealth of studies considering the importance of adaptation to these students' academic success, but few studies on the relationship between adaptation and course satisfaction. Student satisfaction and loyalty behaviours have also been established as the main consequences of students' study experiences, with important strategic implications for HEIs as students become ever more discerning in their choice of institution. Although some higher education research has focused on the antecedents to student satisfaction and loyalty, this is an under-researched area, particularly in relation to international students.

These gaps in the research were addressed through the development of a structural path model to test the influence of English language proficiency on desired institutional outcomes of satisfaction and loyalty, and the extent to which international students' successful adaptation to their academic, social and cultural environments affects those desired outcomes. The moderating influence of a number of pre-entry attributes were also considered on the path relationships. Nine hypotheses were posited and tested with data collected from a survey conducted on 135 Masters students in one UK business school. Results were first subjected to factor analysis before the hypothesised model was tested with a structural equation modelling approach using AMOS software.

The findings support five of the hypotheses, providing empirical evidence that English language proficiency plays a significant role in international students' satisfaction with their course experience, as mediated by academic and social adaptation. Loyalty intentions are also indirectly affected by English language proficiency through satisfaction. In addition, results confirm that there are differences in the relational paths between international students who complete a pre-sessional course compared to direct entrants, and between collectivist and individualist cultural groups.

This study gives important insights into the influence of English language proficiency on student satisfaction and loyalty. Gaining a more comprehensive knowledge of the dimensions which are important to postgraduates, both international and from the UK, is important for HEIs to continue to pursue a competitive advantage. In particular, by understanding the drivers of international students' satisfaction and loyalty, HEIs will be in a much better position to develop strategies which promote and foster loyalty behaviours, which are so important in generating future revenue opportunities.

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PROLOGUE

Definition of Terms and Abbreviations

There are a number of terms and abbreviations used in this and previous doctoral papers which have been garnered from different fields of research, and are subject to different interpretations. To provide clarity for the reader, a few of the most used terms and abbreviations in this paper are defined below.

Adaptation	learning and understanding a new culture well enough to function within it, whilst maintaining one's own original identity Fennes and Hapgood (1997)
Adjustment	developing the social skills and strategies to adapt to the host country's environment combined with psychological well-being (Ward and Kennedy, 1999)
Course Experience Questionnaire (CEQ)	A national questionnaire developed for the Australian higher education sector to measure overall student satisfaction (Ramsden, 1991)
D3 ; D4	Documents 3 and 4 produced for this author's DBA
English for Academic Purposes (EAP)	English language skills required for the purpose of studying in higher education courses delivered in English (Jordan, 1997)
East Asia	countries comprising China, Hong Kong, Taiwan and Japan
HEI	Higher Education Institution
Host Country	country in which the international sojourner is living whilst attending his/her course of study
International student (IS)	a higher education student who normally resides in a country other than the one in which s/he is attending her/his course of study, and who has a temporary student visa
L2	second, non-native language
National Student Survey (NSS)	A national questionnaire developed for the British higher education sector to measure overall student satisfaction (Marsh and Cheng, 2008)
NBS	Nottingham Business School
NNES	Non-native English speaker
Sojourner	a temporary, short-term international resident
Southeast Asia	the collection of Asian countries south of India and China, e.g. Thailand, Malaysia, Singapore

Students as Customers

As the culture of higher education has begun to change, there has been in increasing debate in higher education as to whether students can be considered *'customers'* or *'consumers'* within the services marketing context. According to Maringe (2010) literature on the metaphor of student as customer or consumer has arisen from a number of key drivers including the emergence of Total Quality Management in the 1990's followed by the increasing marketisation of higher education, and most recently the introduction of student fees.

Often used interchangeably within educational literature, there is, in fact, a clear distinction between the two terms in marketing literature. Historically, the term 'customer' referred to a person with whom one had dealings (Etymonline, 2015). Before the advent of the industrial revolution, and the move to larger organisations, a customer would usually have purchased directly from the seller, primarily to satisfy his own needs (i.e. providing his custom). Today, however, the customer may as likely be an organisation as an individual, thus does not necessarily consume the goods or service personally. Hence, a current marketing definition of a customer is an individual *or* organisational purchaser of goods or services from a seller, by way of a financial transaction (Armstrong & Kotler 2006). A consumer, by comparison, is a particular type of customer, one who purchases offerings solely for personal consumption, i.e. the user of the product or service (Fahy and Jobber, 2012). In this new era of self-funded higher education, student as consumer is a popular metaphor being applied to students (e.g. Carù and Cova, 2003; Coughlan, 2009; Maringe, 2010; Carey, 2013), as they make a choice between the different providers (educational institutions) and their offered courses and modules (products) prior to commencement, and then pay their fees within the first few weeks of each year's attendance. This has been perceived cynically, with the 'student as consumer' metaphor encouraging the view of students as passive consumers of education, motivated only by financial or career goals (McCulloch, 2009). This more negative view of students who solely want a degree without the learning and development this would necessitate (Molesworth et al, 2009), is believed to have led to a rise in commodification of education and towards a view of "plagiarism, apathy and customer orientation" (Barnett, 2009, p161) in higher education. Regarding a student as a mere consumer of an educational experience also implies that they have little power or influence, unlike a customer who can choose to move his or her custom elsewhere (Barnett, 2009). Following the selection and payment of their chosen course, a student's option to move may be problematic, if the student has no choice but to attend a local institution, or if the course is not offered elsewhere. It is also being said that the marketisation of higher educational institutions (HEIs) and subsequent culture change has generated a change in students' mentality from 'being a learner' to 'having a degree', where students and HEIs seek "only to satisfy a 'consumer culture' which negates even the possibility that higher education changes the individual's outlook" (Molesworth, et al, 2009, p 278). This switch to market focused strategies means that satisfying the student is now the main agenda for HEIs.

Whilst in the early stages of their education, students might be more typical of a consumer in the passive role they play receiving educational and support services. Increasingly, however, they begin taking active responsibility for their own learning as participants in the service and with the instructor acting as a resource in the students' search for knowledge (Barnett, 2009). This has led to another metaphor being posited, that of students as *co-producers* of their education (Guolla, 1999; Houston and Rees, 1999; Abdullah, 2006b, McCulloch, 2009). Even as consumers of educational experiences, students can also be actively engaged in creating their experiences, a key factor in achieving deep learning, and in retaining students (McCulloch, 2009). As the forces of consumerism in UK higher education have changed the way in which students and universities relate, it is argued that both parties can now be seen as working together to develop, share and apply knowledge (Carey, 2013). Indeed, as an investment in their future career, as much as in their intellectual development, there is a motivation to intensify, not reduce, commitment to their learning, both by students and their teachers (Barnett, 2009). For example, based on growing awareness that the start of a good career may require higher classification of awards, this author has observed the increased student engagement in final year, as they aim to meet that 'acceptable' level of award; most teachers also provide much support in their endeavours. This argument is not limited to students; in marketing as well, a fairly new perspective is to view the customer as co-producer of the service or good produced (West et al, 2015).

The view of student as co-producer may be particularly true in the case of postgraduates who are more likely to apply their new knowledge to a problem or challenge within their own organisation, who may also be sponsoring their education, or in conducting research for other external parties; as such, students could also be seen as closely aligned to the *supplier* role (Houston and Rees, 1999). If indeed students are part of the process, however, one could also argue that students are *products,* as the university and student co-create the final, marketable product or bundle of benefits (Guolla, 1999), with the future employers as key customers of the university, aiming to 'purchase' their 'finished' product (Cubillo et al, 2006). Guolla (1999, p90) also posited students as *clients*, as they receive services delivered by knowledgeable, well-trained education professionals, rely on the advice and guidance of these professionals to improve their "intellectual development" by the end of the process, and measure their success by achievement of that goal.

However, these metaphorical debates have focused on the role of student as customer. The cultural shift of universities towards offering 'products' rather than 'courses', has been argued as the driving force behind universities now perceiving students more as 'customers' than 'consumers' (Carey, 2013). As important stakeholders of the university, students are viewed as having needs and expectations of the benefits and experiences that they will receive from the chosen organisation, again similar to customers (Armstrong and Kotler, 2006). This only reinforces the role of student as customer, and as evaluator of service offerings. Particularly since fees were introduced, students are viewed as behaving more like customers in researching, comparing, and choosing their university (Barnett, 2009; Carey, 2013) which is aided by the availability of university league tables to help them choose between HEIs. Universities are treating students as customers by competing with each other for the students' custom, including the drive for increased student satisfaction survey ratings to bring them up the abovementioned league tables. These surveys have been criticised for emphasising the delivery process, rather than the transformation of the students' learning journey and their responsibility in this process (McCulloch, 2009). Unlike customers, however, it can be argued that students are accepted to the university based on some measurement of merit and eligibility, and do not fully pay for the service they receive (Houston and Rees, 1999). This argument may not hold for international students as one might argue that they are paying the 'full' and unsubsidised fees as a non-native.

However, as is very well understood in marketing research, it is perception rather than reality that matters when dealing with those purchasing and using a product or service. One can also see a perceptual shift on the part of the students, as they are increasingly relabelling themselves as educational 'customers', resulting in the belief they should have more say in the teaching quality and all of the other services they receive (Coughlan, 2009). Because of their expectations of 'value for money' (Tietze et al, 2003) students are becoming more critical about the service they receive. As a customer would do, students experience a high-value educational service, judge the quality of this service, and make an evaluation as to whether or not they are satisfied with its delivery and additional support services, before engaging in positive or negative behaviour, such as recommendations or complaints (Guolla, 1999; Maringe, 2010). In addition, as education is the delivery of a service experience, the quality of that experience will affect their perception of that service (Maringe, 2010). As such it is now evident in higher education that a direct relationship exists between service quality, satisfaction, and repurchase behaviours.

As the aforementioned discussion highlights, the nature of the relationship between the university and student is a complex one and depends primarily on one's perspective. Certainly students may behave more like consumers in today's world, because they need to look for educational products that will meet their own needs in preparing them for successful employment in a competitive and global environment. Thus the focus of higher education has shifted to ensuring that students can develop the skills and know-how to function successfully in the workplace (Barnett, 2009). Also, students are increasingly viewing themselves as customers, no doubt fuelled by the increased price they are paying for their education, the various satisfaction and evaluation surveys that they are continually being asked to complete, and the university league tables which compare competitors' offerings. Further, postgraduate students can be considered as experienced consumers of higher education with the ability to comment on the quality of the service received (Ramsden, 1991; Guolla, 1999). If one takes the view that education providers seek to create value and provide high quality service through development of a relationship with their customers (i.e. students) through a process of service exchange, then customer satisfaction and loyalty can be used as suitable outcome measures of the student's experience (Arambewela and Hall, 2007). Finally, HEIs are now focused on increasing student satisfaction ratings, thus also confirming the view of students as customers. This is resulting in a drive for academics to continually improve their service delivery, and as Guolla (1999, p 91) says, viewing students as customers "allows an instructor to perform diagnostic research to improve teaching". For these reasons, students will be considered to be customers for the purpose of this research project, whilst acknowledging that they may perform different roles in different contexts, and more than one role at any one time.

CHAPTER 1: DOCTORAL AIMS AND OBJECTIVES

This doctoral journey started with the aim of exploring the international student (IS) experience, in order to gain a better understanding of the expectations, needs, and challenges they needed to overcome to successfully achieve a Masters degree. The driver for this were twofold; firstly as an academic member of the MSc Marketing course team who is also a non-British student, there was an identification and empathy with these students as they struggled to adapt to their new cultural, social and academic environment. This feeling strengthened following the launch of the first and subsequent cohorts of the MSc Marketing programme designed specifically for ISs, as it was felt that there was only a superficial understanding of these East and Southeastern Asian students' needs, and the issues that affected their ability to do well in their course. Secondly was the awareness that recruiting students from the global marketplace was an important revenue source following the reduction of government funding, but with intensified competition worldwide, and higher expectations of service quality and value for money, universities really had to raise their game. It is understood that the quality of university provision, and subsequent student outcomes, will ultimately affect their reputation, overall student experience, and not to be overlooked, teacher morale (Johnes, 2004). HEIs are now very focused on the student experience, as by gaining a better understanding of the experiences and expectations of both home and international students, it will provide the knowledge to improve the design of teaching activities and assessments which promote cross-cultural competence and learning, as well as service quality, thus leading to the most effective outcomes.

Following Document 1 which identified the scope of the topic area and research, Document 2 reviewed secondary literature to provide a view of the international student experience, drawn from studies on intercultural communication, language, and multi-cultural learning to identify some of the key research relevant to, and conducted on, international student sojourners. It was determined that three aspects affect the overall experience for the international student: pre-existing factors, i.e. their previous personal, educational and cultural experiences, the ability to overcome and adapt to the cultural, language and learning environments they encounter, and the learning outcomes of their study.

The first stage of primary research was reported in Document 3 (D3), a qualitative study with the aim of gaining a deeper understanding of the IS experience and particularly the underlying barriers that they must overcome to achieve successful outcomes. Reviewed literature identified that there were language, culture and academic shocks that students experienced and which presented a barrier to learning; successful adaptation in each domain was required in order to achieve successful outcomes. A key finding identified the strong influence that language barriers appeared to have had on students' learning and assessment of their overall course experience, as well as on the success of teaching methods employed in the classroom. Whilst the majority of international students with weaker linguistic skills do eventually gain sufficient competence to successfully achieve their award, it does not appear to be without experiencing levels of stress and anxiety in the efforts to develop the required cognitive academic skills. Important questions from these findings arose: if language barriers prove difficult to overcome, will this actually affect adaptation to the academic, social or cultural environments? Does language proficiency have a predictive effect on course outcomes such as satisfaction or achieving an award? This influenced the focus of the next phase of the research journey.

Document 4 (D4) reported the results of a quantitative research study, based on an online survey distributed to all international students attending Masters programmes in the Business School. The aim of the study was to identify and evaluate student perceptions of their course experience and identify their overall satisfaction ratings and loyalty scores, against the language proficiency scores and self-perception of language proficiency, to establish whether students perceived their language as an inhibitor to performance and achieving satisfactory outcomes. A literature search found no studies relating students' language proficiency with satisfaction of course experience. Using SPSS, factor analysis followed by analysis of variance (ANOVA) and independent T-tests were undertaken. Results supported the hypotheses that language proficiency, as indicated by writing ability, influenced academic achievement, and that it also affected overall experience scores. Those with greater language proficiency scores (as measured by IELTS) reported a more positive experience; in addition, the majority of students also reported positive course experience scores related to their achievement in developing language skills over the course length, both of which suggest that higher language proficiency plays a role in course satisfaction. Another key finding showed a strong indication that students' country of origin affected their assessment of their course experience through the satisfaction levels and willingness to recommend scores. However, this study received a disappointing response rate of 25% (76 questionnaires), and the strength and direction of these relationships were not tested. As an apprentice piece, there was much learned but also much scope to improve upon these results. Thus, the final stage of this doctoral journey has a similar aim and focus as D4, but with a new, refined research instrument and improvement in the measurement model and data collection methods.

1.1 Focus and Importance of this Stage of the Doctorate

There has been much controversy in the academic literature about the adequacy of non-native English speaker (NNES) students' language proficiency entering into UK higher education, and whether the minimum standards required for English proficiency are too low or the actual tests sufficiently adequate in measuring the requirements for higher education (Woodrow, 2006). However, in this competitive environment universities will not likely consider raising language requirements to higher test levels and risk losing a large proportion of potential students and consequent revenue stream. Instead, educators have addressed these concerns in different ways; one solution has been to offer a pre-sessional academic English programme, also known as English for Academic Purposes (EAP), as a pre-requisite to students whose test scores are below the minimum language requirements for their desired course (Copland and Garton, 2011). In addition, a search of the internet will display numerous universities, such as the author's own, which offer pre-Masters courses to NNESs without discipline-specific experience, as another strategy to develop study skills confidence and overcome language and cultural barriers. (See Appendix 1 for the University's IELTS requirements). Although there are published materials offering recommendations on the use of EAP courses as a necessary step in developing academic literacy for NNES students, and guidance on teaching approaches (e.g. Jordan, 1997), there is little empirical evidence as to their effectiveness (Terraschke and Wahid 2011). So one of this study's aims is to explore the influence of the two foundation courses offered at NBS, the Pre-sessional English for Academic Purposes (PEAP), and Nottingham Trent International College (NTIC) pre-masters business course, on NNES's perceived language proficiency and academic competence.

There are studies related to predictors of NNES's students' performance such as IELTS, motivation, language anxiety, willingness to speak in class as well as predictors of language proficiency, but there appear to be a dearth of studies focusing on the extent to which language proficiency has affected (is a predictor of) the overall course experience of international students. As a key affective outcome of students' course experience is satisfaction, this can have important strategic implications for universities, such as positive referrals, student commitment and loyalty, collaboration and potential income post-graduation (Tinto, 1993; Arambewela et al, 2006; Russell, 2005; Alves and Raposo, 2007). The reverse, however, could be quite detrimental to a university's long term reputation, whether because of unsuccessful students, withdrawals, transfers to other HEIs, or because of the potential for damaging word of mouth behaviour. As yet, there are still few studies focusing on international student satisfaction within the higher education sector; Alves & Raposo (2007) and Arambewela & Hall (2009) being notable exceptions. Therefore, this study will attempt to address that gap. Connected to that, the ability to adapt, both within the home (UK) and the academic (school and university) culture, appears to be a key factor in predicting satisfaction. Overseas students' learning revolves around their competence with inter-cultural communication (Cortazzi and Jin, 1997). Although there are studies of NNES students' proficiency on acculturative stress, there appear to be few studies on NNES student's adaptive ability or integration, as a predictor of desired outcomes. Therefore this will be a third focus of investigation.

Consequently, the overall purpose of this study is to explore the extent to which language proficiency affects course outcomes, and whether the international students' ability to adapt to their new academic, social and cultural environments significantly influences these outcomes. Determining this would assist management decision making on the support needs, or even language proficiency levels, needed for students, as well as to identify the criteria used to determine satisfaction, in advance of any postgraduate student satisfaction surveys that are made public and used for decision making, such as has been done with league tables for undergraduate students. International students are an important source of financial benefits to HEIs, although this market has become even more competitive, with the choice available to students wider than ever before (Garrett, 2014). Recruiting these students is challenge enough, but once they arrive, to what extent do HEIs meet the needs of such a culturally diverse population? Measuring student satisfaction has become an imperative since the introduction of tuition fees and reduction of government funding. Although focused primarily on undergraduate students, all fee-paying students are increasingly looking for value for money (Diamond, 2015), and have become far more discerning in their search for the best course to meet their needs, thus universities must be able to understand and meet these needs to continue to compete (Temizer and Turkyilmax, 2012). There is still a need for more educational research in an increasingly market-driven and market-oriented higher education sector.

The research questions, stated below, have arisen out of the iterative development and refinement of research objectives that emerged from the literature reviews conducted over this doctoral journey. The literature review for this document has subsequently been extended and revised following the findings from D3 and D4. The research questions that are being addressed, therefore, are:

1.2 Research Questions

1. Does the level of English language proficiency affect international students' satisfaction levels and behavioural outcomes?
2. What is the impact of English language proficiency on international students' adaptation to their academic, social and cultural environments?
3. Does successful adjustment to their academic, social and cultural environments result in more satisfied students?
4. Can English language proficiency, and other pre-entry attributes, explain any variance between the overall course experience of different students?

As these questions are interrelated, but together form a complex framework, a structural model will be proposed and tested through structural equation modelling techniques. Additionally, the marketing concepts of customer satisfaction and loyalty will be applied.

1.3 Document Structure

The remainder of the paper will be structured in the following way. Chapter 2 will consider some of the key literature related to language proficiency and communication competence of international students (ISs), and specifically in the context of higher education. The nature and importance of academic, social and cultural adaptation to students' ability to achieve successful outcomes will be reviewed, followed by key concepts regarding satisfaction and other outcomes within an education context, and then introduction of the conceptual framework and hypotheses that will be tested during the empirical phase of the research. Chapter 3 will discuss the approach to the research project, including methodological stance, approach to the research, and particulars of the research design. In addition, there will be a discussion of the research methods, survey instrument and variables, and participants and procedure followed in conducting the primary research. Chapter 4 will present the findings from the empirical research, including descriptive statistics as well as exploratory and confirmatory factor analysis and reliability measurements. The measurement and full structural model that was hypothesised will then be presented and analysed. Chapter

5 will discuss and interpret the results in consideration with previous studies. Finally, Chapter 6 will provide a conclusion which summarises the key findings, reviews how the research questions were answered, discusses some limitations of the research, and suggests implications for management.

CHAPTER 2: REVIEW OF THE LITERATURE

A comprehensive literature review covering key conceptual themes related to this project was provided in Document 2, and updated in Documents 3 and 4. In the first section of this present literature review, an updated summary of the key themes presented in Document 4 will be provided, including studies which have focused on individual language proficiency components as a) predictors or influences of English language use and academic performance, b) effects of adjustment and c) effects of satisfaction. Following this, consideration will be given to literature which has helped to shape and provide support for this final stage of research, before a conceptual framework is presented to help contextualise the theories on which the primary research will be based.

2.1 English Proficiency and the International Student Experience

With the numbers of students learning English as a second language (L2) continually increasing, research on international students' language acquisition and proficiency has proliferated and comes from a number of diverse academic fields such as foreign language education, child language acquisition, sociocultural and psycholinguistic research.

Many L2 studies have examined students' ability to communicate effectively, e.g. Hammer et al, 1978; Zhai, 2002; Lin, 2002; Brown, 2008a; Brown, 2008b; and Liu, 2009. A range of these studies focused on influential or predictor variables on language performance, including the role of motivation and attitudes on learning (e.g. MacIntyre and Charos, 1996; Hashimoto, 2002; Masgoret and Gardner, 2003; Li et al, 2010; Peng and Woodrow, 2010), the length of time in the host culture, and type of academic subject (Cheng and Erben, 2012). The most abundant of these studies have focused on the relationship between language anxiety and willingness (or unwillingness) to communicate and consequent barriers to successful academic achievement (Matsuda and Gobel, 2004; Liu and Jackson, 2008; Fan, 2010; Peng and Woodrow, 2010; Mak, 2011). A popular measure of language anxiety still in use today is the Foreign Language Classroom Anxiety Scale (FLCAS - Horwitz et al, 1986) which examines a number of psychological factors affecting language learning. These authors and other researchers (e.g. Gardner, 1985) have found that language achievement increased as anxiety levels decreased, and that language anxiety interferes with L2 learning (Horwitz, 2001). Other studies have focused on the probability of students communicating when an opportunity arises, termed willingness to communicate (MacIntyre et al, 2003) or linguistic self-confidence (MacIntyre et al, 1997), a similar concept to language anxiety and unwillingness to communicate, but with a positive rather than negative component (Gardner et al. 1997). Students' willingness to communicate may be more important than actual language proficiency, as perception of language competence and language confidence triggers the cognitive decision of whether or not to communicate (MacIntyre et al, 2003; Yang et al, 2006). In turn, this communication confidence can be linked to learning motivation (MacIntyre et al, 1997; Noels et al, 1996). Some of these researchers also developed causal models to explain the relationships between certain key variables (MacIntyre and Charos, 1996; Gardner et al., 1997; Hashimoto, 2002; Yang et al, 2006). Clément and his colleagues developed a battery of measurement scales over the years which supported their view that self-confidence is strongly related to L2 proficiency (e.g. Matsuda and Gobel, 2004).

There are also a number of studies specific to Chinese learners, which present findings of interrelationships between language proficiency and communication confidence, willingness to communicate, and motivation (Peng and Woodrow, 2010; Yuan, 2011; Yu and Shen, 2012). Unwillingness to communicate has been identified as culturally influenced (e.g. Peng and Woodrow, 2010; Gao, 1998; Nguyen et. al, 2006), but can be overcome by prior answer preparation and confidence (Foster and Stapleton, 2012).

Another related area of research is that which examines the role of English proficiency on academic success by investigating the predictive validity of English language proficiency measures, such as IELTS or TOEFL, and academic performance. Research has yielded mixed results, from no association (Cotton and Conrow, 1998) to positive and significantly positive relationships (e.g. Andrade, 2006; Cho and Bridgman, 2012; Feast, 2002; Graham, 1987; Kerstjens and Nery, 2000; Woodrow, 2006). In one of the few UK studies, Yen and Kuzma (2009) discovered a moderately positive relationship between Chinese students' overall IELTS score and their academic performance as well as in listening, writing, and reading sub-scores. This supports Andrade's (2006) findings that TOEFL scores and writing skills are positively correlated with academic achievement. Other studies highlighted the difficulty that ISs are likely to experience with lower minimum requirements on test scores (e.g. Feast, 2002; Lewthwaite, 2006).

As discussed briefly in the Introduction, pre-sessional, English for Academic Purposes (EAP) courses are offered with the intention of improving NNESs academic use of

English and to raise their academic skills prior to commencing higher education. However, there appear to be few studies which have measured the extent to which these EAP courses are effective thus the call for more research in this area (Copland and Garton, 2011). Three qualitative studies stand out as notable exceptions. Firstly, Storch and Tapper (2009) examined the impact of an EAP course on NNES's academic writing during postgraduate study, finding evidence of improvement in use of academic vocabulary as well as writing accuracy and structure. Secondly, Terraschke and Wahid's (2011) longitudinal qualitative research project comparing the experiences of students who completed an EAP course versus direct entrant NNESs identified the EAP graduates as exhibiting a higher level of confidence in understanding the requirements of their course and in completing written assessments. In addition, the direct entrant students had higher expectations of their performance and showed disappointment and lower satisfaction levels when these were not achieved. Similarly, Dooey (2010) reported EAP respondents' perceptions of English language proficiency as having improved along with their confidence in achieving basic language and academic tasks; conversely, they still faced a number of language barriers which affected their ability to adjust to the academic culture, such as contributing effectively to group or class discussions, expressing complex or abstract concepts, and developing the feelings of belonging and cohesiveness with other members of their peer group.

Further to the above studies, a search of empirical research found only one paper related to the effect of language proficiency on satisfaction. Perrucci and Hu's (1995) determinants of satisfaction model, developed from a survey of over 600 international graduates in an American university, found that language skill and exposure/contact with host-nationals had the strongest positive correlations with satisfaction, although language proficiency was an important predictor only through its relationship with other variables. More generally, a systematic review over 20 years by Zhang and Goodson (2011) identified only four studies which established language proficiency as a predictor of international students' satisfaction with life in their particular host country, USA. With the importance that many researchers and practitioners place on language proficiency during a student's course experience, and the importance that HEIs place on satisfactory outcomes, this is a seriously under-researched area.

Overall, these results highlight the importance of language proficiency on the academic success of international students. However, there are other personal characteristics such as personality, motivation, study skills, and attitudes towards learning which can also affect academic achievement (Andrade, 2006) either by diminishing higher proficiency or enhancing lower proficiency (Graham, 1987). Nevertheless, these issues are beyond the scope of this research, and will not be included within this study's conceptual domain.

A limitation with all of these studies is the lack of comparability, as research differs in the type of measures used, performance indicators, measuring techniques, study lengths (e.g. first semester v entire year) and contexts. Population samples have been chosen from a range of cultures, age, study level and academic discipline (Yen and Kuzma, 2009), although most of the studies originate in the USA or Australia. These limitations underline the need for further research specifically within the UK, and with a more homogeneous focus, to enable effective comparability. Studies also give little indication of the students' ability to make sense of the language, particularly when moving into specialised language of a specific academic discipline within a British educational system (Carroll, 2005). As language is used to convey meaning within a specific context and culture, international students cannot fully understand the English language without also understanding the environment within which the language is used (Dixon et al, 2012). The ability for a student to be able to adjust to their new learning environment is therefore of particular relevance.

In summary, language proficiency studies range in context from primary through to higher education, are mostly from the Southern Hemisphere, and demonstrate different perspectives, motivations, and research methods (Yen and Kuzma, 2009; Copland and Garton, 2011; Dixon et al., 2012). Foreign language educators focus on L2 learning in the classroom, to understand what affects language acquisition and use; sociocultural researchers conduct qualitative research on the social and cultural forces affecting NNESs' proficiency, and psycholinguistic research employs mainly quantitative methods to examine the mental processes involved in L2 acquisition, or components that develop proficiency and cognitive skills (Dixon et al., 2012). However there is a dearth of research which has examined the effect of language proficiency on course outcomes other than academic success.

2.2 Effects of Adjustment on the International Student Experience

International students' self-reports of the way in which communication experiences have influenced their adjustment or adaptation to their environment are presented in many qualitative studies related to higher education, largely supporting the linguistic research findings discussed above. It is widely understood that both psychological and sociocultural adjustment are needed in order to adapt to a new teaching and learning environment (Gu et al, 2010). Psychological adjustment has been defined as "psychological wellbeing or satisfaction" and sociocultural adjustment as "the ability to 'fit in', to acquire culturally appropriate skills and to negotiate interactive aspects of the host environment" (Ward & Kennedy, 1999, p 660). Many studies have shown that psychological symptoms arising from articulating the English language increase acculturative stress and reduce the ability to adjust (e.g. Ippolito, 2007; Hellstén & Prescott, 2004; Gu, 2005; Sumer et al, 2008; Brown, 2008a; Brown, 2008b; Bash, 2009; Smith and Khawaja, 2011; Yuan, 2011). Generally, NNES's language anxiety decreases over the time of their study as perceived language proficiency increases (Masgoret, 2006; Brown, 2008b). The biggest concern for students has been the ability to communicate effectively in English; once that improved they felt more confident to communicate in academic and social situations. Developing relationships with academic staff, peers, and others within their social environment and academic culture facilitates this confidence (Myles and Cheng, 2003). In the UK, Chinese students with a lower English proficiency reported more stress and difficulty making friends with those from other cultures, especially with those from the host-culture (Spencer-Oatey and Xiong, 2006), thus keeping to their own cultural cliques because of perceived communication anxiety (Fritz et al, 2008, Brown, 2007; Hyland et al, 2008; Gu et al, 2010; Montgomery, 2010) or because of the few opportunities to socialise with English natives (Lewthwaite, 1996, Spencer-Oatey and Xiong, 2006; Copland and Garton, 2011.)

Zhang and Goodson's (2011) analysis of a range of socio-cultural adjustment studies in the United States identified three main predictors: length of residence in the host country, language proficiency, and social support. Li et al (2010) added an extra predictor for Chinese learners; the perception of the importance of success to the family. Similarly, Masgoret and Ward's (2006) communication model posited core components of sociocultural adaptation to be L2 proficiency and communication competence, supported by intercultural interaction. Two notable departures from the qualitative studies in this area are the structural models proposed by Noels et al (1996), and Yu (2013); each identified English self-confidence as influencing sociocultural adjustment whilst Noels et al (1996) identified this in turn as being influenced by the opportunity for and amount of contact with native English speakers. Furthermore, Yu (2013) identified a finding new to research in this area, that academic adaptation mediates the relationship between English self-confidence and sociocultural adjustment, and suggested that academic adaptation should be included in future research on international student adaptation. Alongside that finding, research is fairly consistent in showing that language proficiency is an important aspect to the success of both psychological and sociocultural adjustment.

Many studies have also focused specifically on students' ability to adapt to their host culture, and one key focus has been on the level of culture shock experienced (Zhai 2002, Trahar, 2007; Cathcart et al, 2006; Brown, 2008a, Schweisfurth and Gu, 2009). Researchers have found that the larger the distance between cultures, the more significant the barrier to achieving academic success (e.g. Hofstede, 1980; Furnham and Bochner, 1986; Zhai 2002; Gudykunst et al, 2005; Schweisfurth and Gu, 2009). Once NNES students arrive in their host country, it takes them many months to gain linguistic competence (Carroll, 2005). Fritz et al (2008) found significant differences in adjustment factors between cultural groups; Asian students found communication and making new friends more stressful than did southern European students, who were more homesick than their Asian classmates. Adjusting to the academic culture can also be a significant barrier to success, and it has been recognised as the mediator between language proficiency and successful academic achievement for Chinese students (Dunn, 2006). Numerous studies have shown that language proficiency in areas such as writing and critical thinking was a possible stressor and barrier to academic literacy and achieving higher results (e.g. Cheng et al, 2004; Andrade, 2006; Brown, 2008b; Smith and Khawaja, 2011; Yuan, 2011 and Zhang and Goodson, 2011). A large scale survey by Gu et al (2010) identified academic shock, and adapting to the academic environment, as a greater trial for Chinese sojourners than overcoming the shock of a new culture. In addition, poor command of the English language affected interaction in the class and when participating in group work (Volet & Ang, 1998; Tian, 2008; Liu, 2009). Cheng et al (2004) reported the frustration of NNES graduate students with the insufficient time available over the course of their study in which to improve their English language skills, whilst also coping with academic demands. A study by Cheng and Erben (2012) found that some US undergraduate Chinese students managed to learn sufficient English to communicate in their academic study with little sociocultural adaptation during their sojourn, but as a result had a negative perception of their academic performance, and experienced higher anxiety levels in English communication than their more well-adapted colleagues. Yu's (2013) causal model is one of the few quantitative studies that provide evidence for the key role of NNES's communication competence in academic adaptation, and also the influence of academic adaptation on sociocultural adaptation & persistence.

The studies reviewed above indicate that the cultural distance, and the time taken to adjust to new cultural and academic environments, means that some international students will be at quite a disadvantage compared to home students. Kelly and Moogan's (2012) postgraduate assessment analysis showed that 'new' international students needed more time to adapt to the requirements of their academic course than those sojourners who had previous experience in UK higher education, and all of the ISs showed significantly lower mean scores than their British classmates. Whilst not focused on language proficiency, the implication from this examination of results and the other reviewed research is that cultural and academic adjustment is not just a matter of a few months' transition time, or offering students extra language and study support, in the belief they will then be able to perform at a par with home students. There is enough evidence to show that ISs need much more time than the typical course allows to develop the required linguistic competence needed to adapt to their academic and sociocultural environment, as a prerequisite to achieving equivalent results as home students. If there is clear evidence that IS's need more time to adapt to the requirements of their course, and the study support offered is not sufficiently effective, then it is the responsibility of educators to address this disparity and make the necessary changes to bridge the gap between international and home student experiences, not just from an ethical but from a long-term profit standpoint. The problem is, even though there is a large body of research, primarily from North America, Australia and the UK, on student adaptation and adjustment, theories have not yet been synthesised into a coherent framework (Zhou et al, 2008). In addition, because of the mixed methods used and the different sample populations chosen, study results are not directly comparable or generalisable. Therefore, much more needs to be researched into the learning experience of international students, and the factors that influence the success of their learning.

The relationship between social adjustment, particularly through the development of friendships, and overall course satisfaction has also been a related field of research (e.g. Arambewela and Hall, 2007; Hendrickson et al, 2011; Smith and Khawaja, 2011; Zhang and Goodson, 2011). Results from some studies have shown that international students who feel more socially connected with friends from their host country register higher satisfaction levels (Perrucci and Hu, 1995; Kim, 2001; Paswan and Ganesh, 2009; Hendrickson et al, 2011). In contrast, much more attention has been paid to student satisfaction surveys and the service elements that influence student satisfaction generally, as satisfaction has also been linked in educational research as contributing to retention and positive word-of-mouth (WOM) communication (e.g. Townley, 2001). This will be expanded upon in the next section.

The research findings above have identified students' ability to overcome the academic, social and cultural shocks in order to successfully adapt to their environment as a key factor in achieving satisfaction, which has been suggested as an antecedent to other positive outcomes. The results discussed in section 2.1 above have also shown that ISs' confidence with their English proficiency influences or triggers other events, such as their ability to adapt to the academic, social and cultural environments, with some research identifying a link between adaptation and academic success and satisfaction. Accordingly, it is likely that more proficient English speakers will achieve more successful adjustment, which will trigger greater feelings of satisfaction.

2.3 Nature of Service Quality and Satisfaction in Higher Education

HEIs are now very much focused on the student experience. As discussed in Chapter 1, universities view students in the role of customers and therefore satisfaction is of key concern in reviewing service delivery. In order to measure satisfaction, higher education has focused primarily on service quality. "Service satisfaction is the barometer of service quality in education and it has attracted greater attention of the higher educational institutions in their pursuit of competitive advantage" (Arambewela and Hall, 2006, p. 4). These two constructs have attracted discussion from a wide number of academics and practitioners alike since they have been shown to influence post-purchase behaviour such as repeat purchase, commitment and loyalty (Athiyaman, 1997), thus also potential students' choice of institution. The majority of researchers studying satisfaction and its relationship with service quality provide evidence via some form of regression analysis (Gibson, 2010) such as Guolla (1999), Arambewela et al (2006); Alves and Raposo (2007); Clemes et al (2001, 2008), Paswan and Ganesh (2009), and Gruber et al (2010).

Satisfaction and service quality are often used interchangeably (Guolla, 1999; Clemes et al, 2008); for example the Course Experience Questionnaire developed in Australia focuses on measuring perceived teaching quality, whilst the National Student Survey in UK focuses on measuring satisfaction, yet many of the individual survey items are comparable to each other. This is, perhaps, understandable given definitions of service quality such as "...a measure of how well the service level delivered matches the customer's expectations" (Lewis and Booms, 1983, as cited in Abdullah, 2006, p571), which is analogous to the commonly held understanding that customer satisfaction is a measure of how well a product's performance meets or exceeds expectations. This conceptual blurring stimulated attempts to develop models that distinguished between the two, with divergent results. For example, Athiyaman's (1997) structural model of student satisfaction evidenced perceived service quality to be a consequence of satisfaction. Similarly, Parasuraman et al (1985, 1988) viewed satisfaction as a transaction-based measure and service quality as a resulting attitude, with subsequent research supporting this construct (e.g. Russell, 2005). In contrast, Cronin and Taylor (1992) challenged Parasuraman et al's (1988) theory, with the results of their empirical research indicating perceived service quality as a predictor of satisfaction. Research supporting this interpretation include Shemwell et al's (1998) causal model in physician care services presenting service quality as strongly influencing satisfaction, and satisfaction influencing affective commitment (i.e. the strength of emotional bonds). In this perspective, service quality has a more cognitive component, whilst satisfaction has an affective as well as objective component (Shemwell et al, 1998; Clemes et al, 2008). Both outlooks can also be differentiated by measuring either transaction satisfaction or cumulative satisfaction respectively (Guolla, 1999), thus demonstrating a different time element (Clemes et al, 2008). So although service quality and satisfaction can be regarded as conceptually related constructs, they are distinct and depend on one's perspective. However, because cumulative satisfaction has developed over a series of transactions, it has been viewed as the best indicator of past, present, and future performance (Lam et al, 2004).

Due to the heterogeneous and interactive nature of the student-teacher relationship, and the role of student as co-producer, there will be variation in both teacher quality and student engagement from class to class, module to module. Each interaction thus can be viewed as separate exchanges over the duration of a course, resulting in cumulative satisfaction by course completion. This may be why education research has tended to take Cronin and Taylor's (1992) position that a consumer's assessment of a supplier's service quality will influence their satisfaction, hence will be the position used for this study.

Service Quality Dimensions

Different perspectives have developed on the dimensions of service quality, including Grönroos's (1982) functional and technical quality, Parasuraman et al's (1988) five service dimensions, and Brady & Cronin's (2001) three dimensions and nine sub-dimensions model (Clemes et al, 2008). For the higher education sector, Abdullah

(2006) developed the six dimension HEdPERF as a contextual improvement on Cronin and Taylor's (1992) SERVPERF, an instrument not based on disconfirmation theory (expectations vs perceptions) but measuring perceptions only. HEdPERF sought to address the reliability, validity and bias criticisms of SERVQUAL. National questionnaires have also been developed, first by the Australian and then the British higher education sector, to measure students' evaluation of teaching quality and performance, for the purpose of helping institutions enhance their activities, provide accountability, and enable prospective students to make assessments on where to study (Marsh and Cheng, 2008). The Course Experience Questionnaire (CEQ) was first trialled in 1990 with final year undergraduate students (Ramsden, 1991) and contained five subscales with 30 statements in total. The UK's National Student Survey (NSS) published its first results in 2005 with 22 items based on the CEQ (Marsh and Cheng, 2008). (NB: further details of the NSS sub-scales will be provided in the Research Methods chapter, as the source for a number of constructs in the survey instrument). A number of studies have since attempted to evaluate the effectiveness of either the NSS or CEQ, to determine its suitability in different contexts, for example, using the CEQ in the UK (Richardson, 1994), in accounting programmes (Byrne & Flood, 2003), or in the Netherlands (Jansen et al, 2013). Other studies focus on analysing and recommending improvements to the CEQ (e.g. Wilson, et al 1997; Eley, 2001) and the NSS (Richardson et al, 2007; Marsh and Cheng, 2008). However, few service quality research papers in higher education specifically mention use of the scales and items for their own survey instruments, although many items and factors are quite similar. Instead, despite its many criticisms and the lack of consensus as to its appropriateness (Clemes et al, 2008), the SERVQUAL scale developed by Parasuraman et al (1988) still appears to be the most popular instrument used to measure differences between expectations and service quality perceptions across a number of different contexts, including higher education. Overall however, there were relatively few studies which focused specifically on measuring service quality, whether adopting or modifying SERVQUAL and other instruments or developing their own, nor were many of them directed at postgraduate students. However, there were a number of studies which used service quality scales as a measure of student satisfaction, and therefore much overlap exists in the literature with the aforementioned studies.

Service Quality as a Predictor of Satisfaction

Within higher education, a growing trend has been to connect service quality factors with satisfaction, such as Guolla's (1999) assessment of the teaching quality-student satisfaction relationship, and DeShields et al's (2005) determinants of student satisfaction and retention model. The measuring of service quality and satisfaction appear to follow two main approaches (Aldridge and Rowley, 1998) with the typical approach concentrating on teaching quality factors as a prediction of satisfaction, viewing teaching as the core service universities offer. However, there is also recognition by some researchers that non-academic factors should also be taken into account when measuring satisfaction, as students consider a range of factors, not just teaching quality, in assessing their overall study experience (Abdullah, 2006). Previous research conducted on this doctorate has found this to be especially true for sojourners from a different culture; their experience starts on arrival in the new culture. The second approach to satisfaction studies takes into consideration the wider learning experiences by either focusing exclusively on non-academic factors, or combining them with teaching quality factors. An interesting distinction has been made between academic and non-academic attributes by DeShields et al (2005) and Douglas et al (2008), among others. Using Herzberg's (1966) two-factor theory, these authors suggest that the factors relating primarily to learning and teaching can be seen as 'satisfiers' because they relate directly to outcomes, whereas factors relating to support services and facilities are more often hygiene factors, and therefore 'dissatisfiers', as while the absence of them may lead to dissatisfaction, they do not in themselves contribute to overall satisfaction (Gibson, 2010). Viewed in this way, both sets of factors can be seen as contributing to a student's overall experience, but it is the intrinsic factors or 'satisfiers' which are essential to go beyond a neutral 'neither satisfied nor dissatisfied' response and drive up the students' overall satisfaction ratings. A summary of studies focusing on both academic and non-academic determinants of satisfaction are reviewed below.

Academic predictors of satisfaction: Most researchers have identified the most important factors related to teaching effectiveness as being: a) course content, including design and delivery, as illustrated in Guolla (1999), Alves and Raposo (2007), Douglas et al (2006), Arambewela and Hall (2009), Gruber et al (2010) and Douglas et al (2015); and b) academic staff and teaching factors, such as quality and expertise of the lecturer, responsiveness, feedback, and the quality of the teacher-student interactions (e.g Kwan & Ng, 1999; Clemes et al, 2008; Arambewela et al, 2006; Arambewela and Hall 2007; Gibson, 2010). All of these findings underscore the fundamental importance of teaching quality, and the role of the academic staff, in achieving student satisfaction.

Non-academic predictors: Measures from the wider service environment have also been considered as necessary to include in some surveys when evaluating students' overall experience, although there were mixed results. Reported as significant predictors of satisfaction were factors concerning access to and quality of support services and facilities, such as library and IT facilities, e.g. Athiyaman, 1997; Kwan & Ng, 1999; Oldfield and Baron, 2000; Arambewela et al, 2006; Barnes, 2007; Grebennikov and Skaines, 2007. On the other hand, the physical environment was found to be the least important factor in Douglas et al's (2006) study. Some researchers included measures of students' perception of learning outcomes in their surveys; two factors deemed important were academic and personal development (Tan and Kek, 2004; Clemes et al, 2008; Barnes, 2007). Specifically, study and language skills were important factors measuring satisfaction, the latter of which was found to be of particular concern to postgraduate students (Perrucci and Hu, 1995; Russell, 2005). A few studies also identified perception of university image or reputation as a predictor of satisfaction (e.g. Brown and Mazzarol, 2009; Gruber et al, 2010) including perceived value (Alves and Raposo, 2007; Brown and Mazzarol, 2009), and especially for international students (Arambewela et al, 2006; Barnes, 2007). However these studies included the evaluation of factors influencing choice of study destination, therefore reputation was most likely compared to pre-enrolment opinions (Gibson, 2010). Exclusively for Chinese students, also important was the university's concern for the student, or empathy (Kwan and Ng, 1999; Barnes, 2007) which included attributes related to academic and non-academic staff's support, attention, and understanding of needs. Similarly, another contributory factor to satisfaction related to degree of social integration, such as the sense of belonging and opportunity to socialise (Gibson, 2010). With studies of international students, this social connectedness or involvement with the social environment was a good predictor of satisfaction; for example, Perrucci and Hu (1995) found that this social connectedness, together with self-esteem, had the strongest correlations with satisfaction of their overall experience; of particular import was the finding that academic performance was not a direct influence, i.e. it was only a satisfier through its relationship with language skills. Higher levels of satisfaction were also related to inclusion of host-nationals in the sojourners' social network (Kim, 2001; Hendrickson et al, 2011, Paswan and Ganesh, 2009). However, Clemes et al (2008) noted that whilst significant, social factors were one of the least important of their 10 sub-dimensions. Nevertheless, the effect of social factors on satisfaction in these studies supports the other research on international student adjustment and the positive impact on their holistic experience, as reviewed in section 2.2 above.

Different cultural results: There were only four quantitative studies found which compared factors between cultural groups, showing results that different cultures had different expectations and perceptions of service quality variables. Arambewela and Hall's (2006) study of postgraduate business international students found significant differences between SERVQUAL constructs and country of origin (i.e. China, India, Indonesia and Thailand). Grebennikov and Skaines (2007) found that Australian home students were more satisfied with course outcomes, social, sport and religious activities than their international classmates. In contrast, Tan and Kek (2004) showed that foreign students had higher perceived service quality scores than home students. A survey by Kwan and Ng (1999) of undergraduate students attending universities in Hong Kong (HK) and China discovered differences in importance between factors; HK respondents placed more value on assessment, whilst Chinese respondents were more concerned with course quality and communication responsiveness. In addition, both Asian groups emphasised study-related factors, whilst American students focused more on factors emphasising the process of their experience such as social activities and peer relations, similar to the results of Grebennikov and Skaines (2007). One unique piece of research on international student satisfaction differences by Arambewela and Hall (2007) identified Indian students as being the most dissatisfied with their experience and Chinese and Indonesian students to be more satisfied. They suggested that different actions may be needed depending on the cultural group, to ensure satisfaction with course and other outcomes.

What is notable in all of these studies are the divergent results; the research is situated across different contexts, such as country of origin, undergraduate or postgraduate level, home or international student, with the consequence that each identifies different service quality dimensions or importance rankings, or identifies different gaps between expectation and perception of service received. In relation to Arambewela and colleagues' studies, for example, results identified in Australian higher education may not be directly comparable to British higher education results. In addition, most of the postgraduate students the authors surveyed had been previously employed, so it is quite conceivable that their expectations, perceptions of service quality, and overall satisfaction levels might be different from postgraduates studying in British universities, especially since the majority have no previous work experience.

2.4 Predictors of Behavioural Intentions

An important construct of relationship marketing strategy, customer loyalty has been the focus of much academic and practitioner interest in recent years. It has been universally identified as important to gaining a sustainable advantage through its link with such benefits as customer retention, increased purchases, positive referrals and reduced costs, which lead to increased profitability (Reichheld and Sasser, 1990; Reichheld, 1996, 2003; Oliver 1999). Therefore, impacts on or antecedents to loyalty, such as customer satisfaction and service quality, have also been the subject of numerous studies in various marketing contexts. For example, seminal research by Zeithaml et al (1996) confirmed that service quality was related to customer retention, as it was important to improving favourable, and reducing unfavourable, behavioural intentions. Their conceptual model included the loyalty dimension with measurements related to word of mouth communications, purchase intentions, price sensitivity and complaining behaviour. This loyalty scale has been adopted in other studies, such as Lam et al's (2004) B2B conceptual framework; their results supported the positive effect of customer satisfaction on two loyalty dimensions. According to these authors, loyalty is conceptually similar to relationship commitment, i.e. the desire to remain in a valued relationship, with the two most common behaviours indicating loyalty being 1) recommending the service to others, and 2) repeat purchases.

Whilst researchers such as Athiyaman (1997) found that service quality had a greater effect on behavioural intention than did satisfaction, it appears that more research has found support for the opposite view, i.e. that satisfaction is a mediator between service quality and loyalty. To illustrate, causal models by Shemwell et al (1998) and Kim (2011) confirmed the effect of service quality, fully mediated by satisfaction, on relationship-based outcomes of affective commitment (emotional attachment) and continuance commitment (future purchase intentions). In addition, Kim's (2011) model included service orientation as an antecedent to service quality. Lam et al's (2004) results confirmed the relationship between loyalty and its antecedents of customer value, satisfaction and switching costs. In university-based structural equation models from Portugal, Norway and Chile, comparable results by Alves & Raposo (2007), Helgesen and Nesset (2007) and Rojas-Méndez et al (2009) respectively confirmed that service quality affected loyalty only through student satisfaction, for which there was a strong and direct effect. Additionally, Rojas-Méndez et al (2009) identified commitment and trust as mediators between satisfaction and loyalty, whilst Alves & Raposo (2007) identified university image as directly affecting both service quality and satisfaction. Dlačić et al's (2014) conceptual model found that both perceived service quality and perceived value significantly and positively affected repurchase intention of South-Eastern European students. As evident from the focus on structural models identified above, the vast majority of research on satisfaction and loyalty has been quantitative, although two interesting qualitative studies stand out. One was by Douglas et al (2015) on 350 UK undergraduate students, using the critical incident method, which also identified satisfaction as a significant influence on commitment and loyalty. The second study, by Sultan and Wong (2013), used rigorous content analysis of focus group surveys with Australian higher education students to examine the consequences of service quality; their findings confirmed the above-mentioned results, regarding the positive influence of service quality on university image, satisfaction, trust, and behavioural intentions. In summary, these studies have all contributed to the research on service quality being one dimension of satisfaction, and satisfaction to be (largely) a strong and direct influence on loyalty.

Until recently, studies in education on student loyalty has mainly been through research on student retention and departure, with Tinto (1975, 1993) the primary researcher into student commitment to the HEI. It is worth noting at this point that 'retention' has different meanings depending on the context. With regards to consumer product or service transactions which are discrete, retention refers to the goal of organisations to ensure existing customers continue to re-purchase (West et al, 2015). In the case of high-involvement services, 'retention' is used to denote commitment to ongoing relationships, i.e. an organisational goal of maintaining (and enhancing) long-term relational exchanges (Dwyer et al, 1987; Morgan and Hunt, 1994). Tinto (1975, 1993) has used 'retention' in this sense, to refer to the goal of educational institutions to ensure that enrolled students remain committed to their institutions and do not depart before completing their entire period of study. His conceptual model posits that institutional commitment cannot occur without integration (academic and social) and both are essential to student retention. Also, because of the intangible nature of education affecting the ability to effectively represent that experience, student expectation may not match the reality, hence affecting their continued commitment to the HEI. "Since pre-entry expectations influence the character of early experiences within the institution they also affect retention following entry" (Tinto 1993 p155). Although Tinto did not specifically refer to concepts of service quality and satisfaction, he identified the gap that can arise between expectations and perception of academic quality and social life, which can lead to outcomes of either satisfaction or dissatisfaction (which he terms 'disappointments'). However, this has been one of the criticisms of the model; academic quality has been posited as a determinant of the student's integration into the academic and social 'life' rather than as a direct influence on loyalty behaviours (Hennig-Thurau et al, 2001). Nevertheless, Tinto's (1975) framework has been used as the basis for two conceptual models on student loyalty: Cabrera et al (1993) identified determinants of student retention to be academic results, institutional commitment, friends and family encouragement, and academic and social integration; Hennig-Thurau et al's (2001) model of relationship quality determined student loyalty to be positively influenced by perceived teaching quality and emotional commitment (feelings of belonging) to the HEI. Both authors found the antecedents to commitment to be students' integration into both the academic and social systems. In other words, evidence was provided in both models that academic and social adaptation positively affected loyalty.

As another concept within the relationship marketing literature, referral behaviour, commonly known as 'word of mouth' (WOM) communication, is now well accepted as influential to a prospective customer's choice of product or service. In the higher education domain, it is seen as important to ensure that students are satisfied, because of the influence they can exert on the decisions of prospective students and thus affect the competitiveness (Garrett, 2014). It has also been recognised as a powerful medium in international students' choice of institution: "much of the international student market depends on 'word of mouth' contact with friends and relatives at home" (Ryan, 2005, p147). Like the studies aforementioned, some educational researchers have chosen to examine WOM as a consequence of satisfaction. For example, Guolla (1999) identified that the nature and effects (positive or negative) of WOM are influenced by level of satisfaction. Athiyaman (1997) showed a relationship between student satisfaction and WOM, and WOM and customer retention. In their student satisfaction model, Alves & Raposo (2007) identified that loyalty was a consequence of satisfaction, and influenced positive WOM behaviour. However, very few researchers have tested these relational constructs with international students. Research by Arambewela and Hall (2006) and Paswan and Ganesh (2009) attempted to fill the gap; both posited that international students' satisfaction with service quality elements was linked to positive word-of-mouth (WOM), and would play an important part in the marketing of their courses. Paswan and Ganesh's (2009) study also confirmed it was augmented services which had the strongest impact on international students' loyalty and willingness to recommend, rather than the core offerings (i.e. university services and facilities). The authors concluded that HEIs who were successful at facilitating the social integration of international students, particularly with peers from the host culture, achieved more favourable satisfaction and loyalty ratings.

Even with UK HEIs increasingly focused on improving service quality in the belief that it will improve satisfaction, there is a noticeable paucity of higher education research in the UK which reflects the attention others have given to the service quality or satisfaction concepts as important predictors of loyalty and their consequences, and thus competitive advantage. This is surprising given that, as discussed in Chapter 1, students may increasingly be viewed as customers and clients, but the co-production nature of education means that these concepts, and the relationships between them, may not necessarily be conceptualised or operate in the same way in the higher education context as in other business services contexts.

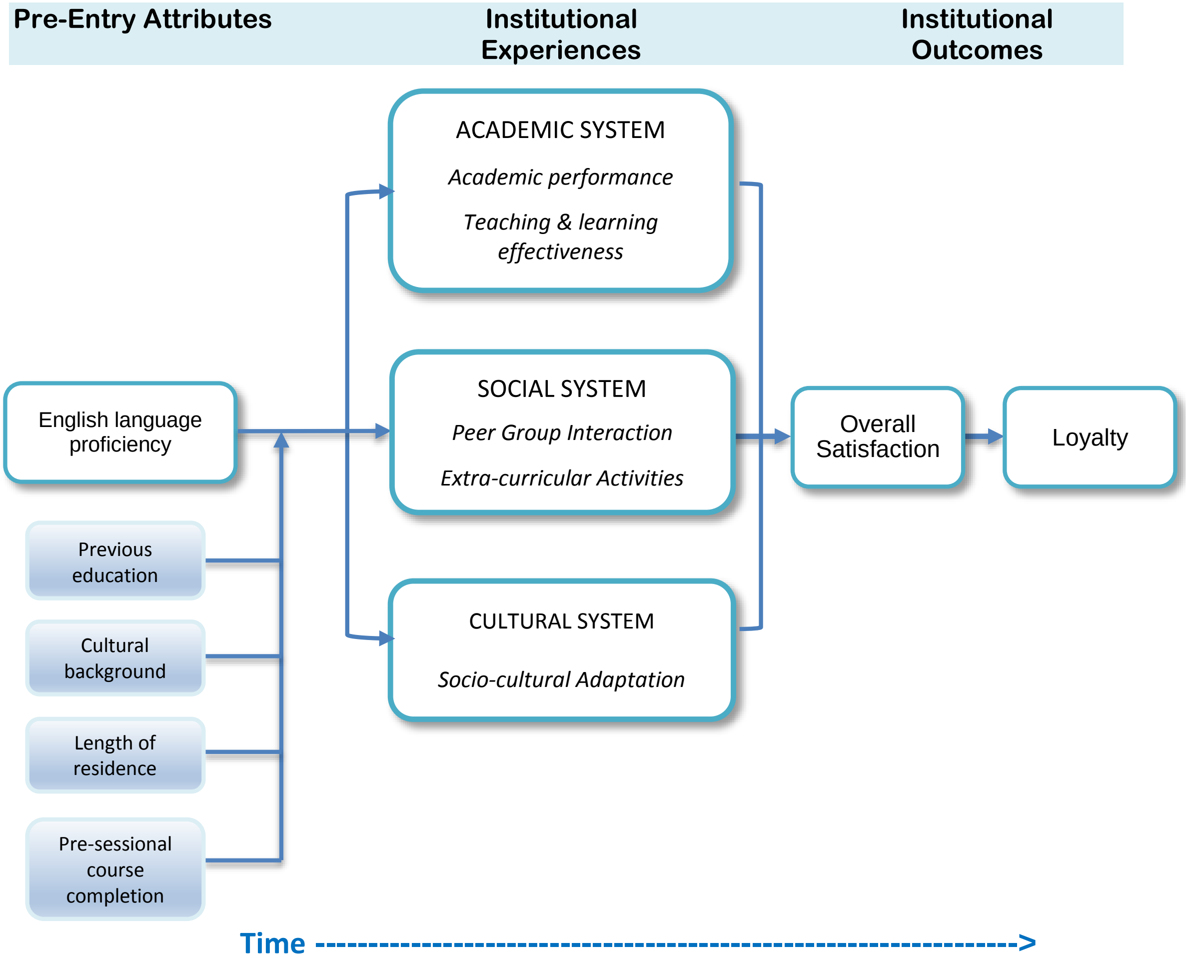
Overall, this literature review has found relatively few studies which have focused specifically on the relationship between language proficiency and academic outcomes (i.e. successful performance, course satisfaction, commitment, or word-of-mouth referral). Much of the research within the UK has been focused on qualitative studies of international students' learning experience, and the difficulties that they may face, but there has been little research focused on the nature of their linguistic experiences (Copland and Garton, 2011) or outcomes (Morrison et al, 2005). Because of all these diverse domains and emphases, the associations between the students' individual inputs, their experiences, and their outcomes, have not been clearly connected to each other within the research. As research data has not yet been amalgamated, the lack of a common database presents a major barrier to educators' ability to identify or address key challenges in L2 learning and teaching (Dixon et al, 2012).

The conceptual framework, shown below in Figure 2.1, is an attempt by the author to clarify the associations between some of the key components of language proficiency and their influence on students' course experience and outcomes. This framework has guided the development of the research questions and hypotheses which address the aim of this study.

2.5 Conceptual Model and Hypotheses Development

The starting point for this document's conceptual model was Tinto's (1993) longitudinal model of institutional departure, on which he posits an explanation of the various interactions, including social and academic integration, which affect a students' likelihood to persist. Like Tinto's model, this model also operates within the higher education context. Secondly, it is longitudinal and interactional in its configuration and also considers institutional experiences surrounding the academic and social systems within the institution and the external community. Thirdly, it focuses on key events or experiences that occur primarily within the institution and attempts to explain how they may affect particular outcomes, thus it is also an explanatory model. Many of the same underlying factors can be used to seek explanations for interactions which influence students' satisfaction with their educational sojourn. Key differences to Tinto's model are that a) this model focuses primarily on international students, b) the outcome to the causal sequence is not departure decision but level of satisfaction and loyalty outcomes; and c) English language proficiency is the key mechanism which is being studied, and not goals and commitments. Language proficiency is seen as acting causally on international students in many ways, such as through successful adaptation to their academic, social and cultural environment, and at the completion of their sojourn, affecting the success of their academic performance, overall course satisfaction, and propensity to loyalty such as referral and repurchase behaviours. Therefore, this model has also been influenced by key findings from the literature review conducted and reported above. Finally, research conducted by the author in earlier stages of her doctorate has also helped to develop a fuller understanding of the international students' journey. The final model has incorporated these three different sources to theorise how the international students' English language proficiency affects their interactions within the academic, social and cultural contexts, i.e. the university and wider community environments, which is influential in the longitudinal formation of satisfaction and loyalty outcomes.

Figure 2.1: Proposed Conceptual Model



Students begin their Masters course with a pre-existing and unique set of background characteristics & personal attributes which have a moderating influence on their ability to cope with (persist) in the course and integrate into the academic, social and cultural environment. International students experience a longitudinal process of interaction with the Academic and Social Systems of the institution as well as the Cultural System of the host community. Experiences with the Academic System refer to the effectiveness of interactions with the academic processes and university personnel, such as teacher-student communication, learning resources, support services and facilities, together with assessment events, which result in development of a student's academic competences and performance profile. Experiences with the Social System include the development of relationships with their peer group, formally in the classroom and informally in the university community, facilitated by the availability of a range of extracurricular activities. Experiences with the Cultural System refer to the host community and the ability of the student to adapt to the normative culture in order to function effectively in day-to-day interactions. Over the duration of the course, all of these continuous interaction events provide the basis for student evaluation of their sojourn, which produce attitudes and opinions; the more favourable their assessment of their interactions within the Academic, Social and Cultural Systems, the more likely they will feel satisfied with their overall experience, and the more loyalty they will exhibit, demonstrated by commitment to their institution, and propensity to recommend said institution to others.

A key aim of this study was to determine the extent to which language proficiency affected the overall satisfaction of an ISs' course experience, as well as favourable outcomes of loyalty (referral intention, commitment, and willingness to return or repurchase intention). As discussed in Section 2.1 above, language proficiency has been identified as one of the main determinants of ISs' academic success, but the research on satisfaction is scarce. Nevertheless, there was a slim body of research found which establishes language proficiency as a predictor of satisfaction with academic study. Therefore the first two hypotheses are:

H1a: The higher an international student's (IS's) English language proficiency, as measured by perceived English language proficiency and communication confidence, the higher the overall satisfaction of course experience.

H1b: The higher an IS's English language proficiency, the higher the loyalty, as mediated by overall satisfaction.

Discussed in Section 2.2 above, research on the IS experience did identify the ability to overcome the academic, social and cultural shocks in order to successfully adjust to their environment as a key factor in achieving satisfaction, and satisfaction has been suggested as an antecedent to other positive outcomes. In addition, previous results showed that ISs' confidence with their English proficiency influences or triggers other events, such as their ability to adjust to the academic, social and cultural environments, and there was some research identified which highlighted the link between adjustment and academic success and satisfaction. Accordingly, it is likely that more proficient English speakers will achieve more successful adaptation, which will trigger greater feelings of satisfaction. Thus, the next set of hypotheses are:

H2a: Academic adjustment, as measured both by perception of academic performance and teaching effectiveness, mediates the positive effects of English language proficiency on overall satisfaction.

H2b: Social adjustment, as measured by peer group interaction and extracurricular activities, mediates the positive effects of English language proficiency on overall satisfaction.

H2c: Cultural adjustment, as measured by socio-cultural adaptation, mediates the positive effects of English language proficiency on overall satisfaction.

As identified in Sections 2.1 and 2.2, previous research has suggested that the longer international sojourners spend as a resident in an English-speaking country, the more likely they are to experience cultural adjustment, particularly when there is a large cultural distance between their home and host country. In addition, the literature from Section 2.1 indicated that successful completion of pre-sessional Academic English courses, and pre-Masters Business courses, increased confidence in English usage as well as familiarity with academic requirements at Masters level, which facilitates academic adjustment and improves course experience. Linked to that, and based upon the authors' experience teaching on the MSc Marketing course, it is posited that completion of a degree in business or management positively influences academic adjustment and course experience, as the students will be familiar with the language and have prior knowledge of their subject discipline. Furthermore, the literature review within Section 2.2 identified that the length of residence in an English-speaking country, whether or not the international students are attending pre-sessional courses, also allows for the development of same culture (co-national) friendships and peer relationships, which improves social adjustment prior to and during their Masters course. It is hypothesised, therefore, that the length of residence, pre-sessional course completion, previous degree subject and cultural background all affect the strength of the relationship between English language proficiency and adjustment to the Academic, Social and Cultural Systems, i.e. they are all moderators. The next set of hypotheses are, therefore:

H3a: The length of time residing in an English-speaking country moderates the positive effect of English language proficiency on social and cultural adjustment, such that the longer the student resides in an English-speaking country the more positive the effect.

H3b: Completion of a pre-sessional course moderates the positive effect of English language proficiency on academic and social adjustment, such that the effect is stronger for successful completion of a pre-sessional course.

H3c: Completion of a first degree in business or management moderates the positive effect of English language proficiency on academic adjustment, such that the effect is stronger for prior completion of a business or management degree.

H3d: Cultural distance moderates the positive effect of English language proficiency on academic, social and cultural adjustment, such that the effect is more negative for greater cultural distance.

CHAPTER 3: APPROACH TO THE RESEARCH PROCESS

Following the discussion of the purpose and subject of this project, it is important to consider the approach to the research, its nature and style, too. This will give shape to the way in which the research is understood, conducted, and interpreted. In addition, decisions on methods, research design and data collection, as well as ethical issues, need to be considered. This will be the main theme of this chapter.

3.1 Methodological Stance

According to Saunders et al (2009), the philosophical position of much business and management research is that of realism, under the post-positivist umbrella, and with which this study is most closely aligned. In general, realists believes that social phenomena exists not only in the mind, but can also be observed objectively (Miles and Huberman, 1994). Unlike classical positivism, a realist does not believe that a researcher can observe reality with any certainty (Fisher, 2007) however, because social phenomena are always socially constructed, which prevents any claim to truth or absolute knowledge. Social sciences have "no absolute, universal, error free truths, or laws as any scientific knowledge" (Bechara and Van de Ven, 2007, p.38) so generalisations can only provide a probable rather than an absolute truth (Bisman, 2010). Unlike interpretivists, a realist does not believe that there are many realities but one reality with many possible perceptions or interpretations of that reality (Perry et al, 1999). The ontological position is therefore mid-way between empiricism and interpretivism, with a recognition that each has its limitations (Mingers, 2003) and the epistemological position is a form of relativism and interpretivism (Maxwell, 2012). Whilst there continue to be philosophical debates over the different forms of realism (Maxwell, 2012), critical realism as introduced by Bhaskar (1978) has taken a dominant position in the literature, although to add to the confusion, schools of thought differ even within this philosophy (Bisman, 2010). According to Mingers (2003, p3), critical realists are "concerned with *explanation, understanding,* and *interpretation*". Reality can be measured in the interpretation of experiences (the first level), and in the study of events (the second level), but the mechanisms, (the third, deepest, level of reality) can only be inferred (Fisher, 2007) because the context can change. A critical realist's efforts will be focused on understanding these proposed mechanisms, i.e. what makes something work. For example, language is a mechanism, because it makes it possible for people to communicate, and it can have a number of causal effects (Porpora, 2015). There are also causal mechanisms, which can be defined as the system of related elements leading to an outcome, such as that which exists between language and cultural norms, or to use Porpora's (2015) example, the power an academic has to fail a student's work is a causal mechanism, as the student and academic are related by their position and interaction within the education system; this is possible by another important causal mechanism, the rules which govern higher education assessment. These cultural rules create a power relationship which exists objectively and independently of observation.

In an open system such as higher education, a student's results are contingent upon a number of complex interactions, or causal events, with all of the multiple causal mechanisms within their environment or context over time (Pawson and Tilley, 1997; Porpora, 2015). To use the focus of this study as an example, one may be able to observe and explain why a particular student may have acted a certain way in a particular situation, but one cannot predict that all students, or even that individual student, will always behave that way in all similar situations. There are too many underlying mechanisms such as language, social processes (e.g. culture and peer group influences), and mental processes (e.g. personality, emotions and beliefs), that make it impossible to provide a perfect account of human actions. As a realist, therefore, the task is to explore the realm of the 'real', such as events or experiences, in an attempt to identify patterns, from which to develop some explanation of those "constructs that underlie individual and social life" (Miles & Huberman, 1994, p5). This stance best reflects the research philosophy of this study because there are practical benefits to examining participants' views, behaviours and attitudes within the context of their study experience, with the ultimate aim of trying to understand the mechanisms, structures and processes that underpin their world. The aim of this research is to select a model that provides a representation of the best fit to the interpretation of reality, with the aim of advancing knowledge in the field of higher education learning and teaching. In this way, the approach sits between that of positivism and interpretivism, and this is indeed the belief of this researcher - the middle ground is a common-sense, intuitively *realistic* position to conduct one's enquiry. The ontological position is objective (with reality existing independent of cognition) and the epistemology is subjective, with "no predetermined methodology or criteria to judge the veracity of the knowledge" (Bechara and Van de Ven, 2007, p.39).

In addition, unlike a true positivist, a realist does not believe it is possible to conduct research that is value-free and impartial; one already has *a priori* cognitive frameworks that affect one's perception of the world (Bechara and Van de Ven, 2007). The previous findings generated for Documents 3 and 4, in addition to an extensive review of previous research literature in different academic domains, have provided those frameworks with which to base this study.

3.2 Research Approach

A researcher's ontological and epistemological viewpoint will affect not only her research methodology but also the approach to conducting that research, and it is important to make this explicit (Bisman, 2010). Because realist researchers believe that reality is external and observable, one's research should start with a review of previous studies The aim of this study is to obtain a broad overview of international student perceptions primarily through quantitative methods; specifically, the use of a hypothetico-deductive system of research, and survey-based research. Although the positivist paradigm is traditionally perceived as underpinning the hypothetico-deductive approach to research (Newby, 2010), this approach is also, according to Fisher (2007, p44) "at the heart of realist research". Some researchers are comfortable with using a wide variety of methods in realist research, especially as part of a mixed-methods design (Porpora, 2015; Olsen, 2010; Sayer, 2000). However "an ongoing tension" has arisen in the literature with regards to realists employing quantitative methods (Brown and Roberts, 2014, p.300). The argument put forward is that quantitative methods such as surveys have no place in realist research, because one cannot hope to understand the mechanisms found at the third, or deepest, level of reality (e.g. Sobh and Perry, 2006; Pawson and Tilley, 1997; Miles and Huberman, 1994). These realists argue that scientific research is concerned with identifying the variance and/or relationships between variables or mechanisms, but within the social sciences, cause and effect can be difficult to determine, as causes will most likely be multiple, cumulative, and/or interrelated, and no research into the field of education has the ability to "reveal and predict, the workings of such causal processes" (Oppenheim, 1992, p18). The variation in respondents' answers can be identified as significant or not, but no hypothesis can be proven; rather, the most that can be proven is that there is *no* relationship between certain data, i.e. to establish a null hypothesis (Newby, 2010).

On the other hand, whilst acknowledging the criticism towards using quantitative methods in realist research, researchers such as Ackroyd and Karlsson (2014, p35), suggest that it can reveal insights into contexts that allow for connections to be made with processes. Similarly, Pawson & Tilley (1997) suggest that the research design can vary, as long as a realistic evaluation strategy is used to increase our understanding of either mechanisms, contextual conditions, or outcome pattern predictions. Indeed, even when using quantitative methods such as surveys, there is an element of qualitative research such as during the pilot stage, as discussed in Section 3.3 below, which demonstrates that social research will also be somewhat interpretivist (Olsen, 2010). Williams (2014) argues that whilst the social world is subject to variance, there is also invariance and stability across place and time, which indeed is necessary for a social world to even exist. We can still say that some things are likely to occur, and that such things occur as a result of other things happening. Social researchers, Williams (2014) argues, still use models, if only of theory or method. He concedes that statistical models can only be representations of reality, but that they can allow a researcher to modify and improve theoretical models of social mechanisms, although we must acknowledge that the data and tools available will most likely be imperfect. Patterns of events and their underlying structures can be uncovered by the use of statistical modelling which then allows for the exploration of possible causal mechanisms (Mingers, 2003). Similarly, Porpora (2015) argues that critical realists look for mechanisms, not laws, as explanations for causal events. Therefore, the identification of a regression equation can serve as just one piece of evidence *towards* an explanation of that causal relationship. Statistics can support a claim that certain events were caused by particular reasons, i.e. explanatory mechanisms. In fact, Porpora (2015) goes further when he says that quantitative questions necessarily need statistical analysis, and that statistical analysis is a valid method when appropriate to the research question, and he believes this is now a dominant stance with some critical realists. The interpretation of critical realism by both Williams (2014) and Porpora (2015) is the one with which this author most closely aligns. In summary, therefore, the model in this research which has been developed and will be subject to statistical analysis will be not be seeking to prove any 'laws' but rather to identify the existence of relationships which may provide some explanation for the effects of a variable upon a phenomenon, in this case English language confidence on international students' course experience. The next section will discuss in more detail, the research method decided upon as most appropriate.

3.3 Research Method

Because this study is primarily explanatory, i.e. seeking to identify relationships between variables (Saunders et al, 2009), a quantitative data collection method was determined to be most appropriate to generate the large amount of data needed in which to test the hypotheses. However, this study could also be said to be following a mixed-method approach, as there is a qualitative element of research preceding the quantitative, data-gathering phase. First, exploratory literature reviews were conducted for this and the previous DBA research studies, to gain the knowledge needed to develop a conceptual framework which would guide the development of this stage of the research. Second, focus groups were conducted in order to confirm and if needed, refine the variables identified within the previously conducted secondary and primary research. Finally, a survey was conducted with which to address the research questions. This aligns with a realist's approach, i.e. first gaining knowledge of the external reality through conducting a literature review, developing a basic conceptual framework, and then conducting fieldwork (Sobh and Perry, 2006). The two primary stages of data collection will be discussed further in the next section.

A questionnaire designed specifically for this research was used as the survey instrument with which to collect the data. From initial formulation of ideas through to testing on a sample of respondents, the stages of developing the questionnaire can all be considered within the quite time-consuming process of "pilot work" (Oppenheim, 1992, p.47). The survey instrument designed for D4 was intended to be used as the basis for this study, however, one conclusion of D4's research was that the design needed to be further refined, with much scope for improvement. Construct validity, or the extent to which one measures the concepts one intends to measure (Saunders et al, 2009) was an important consideration throughout the pilot work and subsequent analysis. The first stage in piloting a new and improved version of the survey instrument was to ensure that the extensive literature search and information from focus group research, previously reported in Document 3, remained relevant. The second stage was the actual redesign, including endeavours to ensure that the rating scales and constructs used were appropriate, reliable and valid, and that response bias was minimised. The third stage was to pilot the questionnaire, in order to test the adequacy of the research instrument. The fourth and final stage was the actual fieldwork, i.e. distribution of the survey. These key stages are discussed further below.

Stage One: Confirming the Survey Variables

In addition to surveying the literature for questions, scales and constructs that represented the areas of interest to this study, the first stage of the questionnaire development process consisted of facilitating three focus groups of between five and seven international students. All were nearing completion of their Masters study and thus should be able to reflect upon their overall experience. Each group of students were asked about the issues that were important to their overall experience, the purpose of which was to confirm that their views reflected the key aspects of language concerns and challenges raised by students in research conducted for D3 and D4 and the research literature conducted to date. These results were used to guide the selection of questions/scales from the literature and, as necessary, to identify where previously used questions and scales might need adjustment, to ensure that they aligned properly with experiences of students specific to NTU Masters courses. This part of the process established content validity, as much as it is possible to do so; i.e. that the survey instrument reflects the content of the concepts that it intends to measure (de Vaus, 2014). It was determined that although there were no new key areas identified, ideas from these student discussions were taken and helped in design of constructs and questionnaire wording, which started the second stage of the questionnaire development process.

Stage Two: Designing the Survey

The design of the survey instrument first considered the three different components of the conceptual framework – Pre-entry Attributes, Institutional Experiences, and Institutional Outcomes - and formed the basis of its structure. The table below illustrates the link between components, headings and individual questions, all of which will be discussed in more detail below. Questions marked with an asterisk were to be completed only by NNES respondents, and a double asterisk indicates the questions to be completed by all IS respondents.

Table 3.1: Survey Headings and Corresponding Items

Components	Section Heading	Items
Pre-entry Attributes	About You	Q1–Q4
	English Use and Proficiency	Q5a,b,c*
	And finally…	Q15
Institutional Experiences	English Use and Proficiency	Q6*
	Course Experience	Q7
	Academic Performance	Q8–Q10
	Extra-curricular Experiences	Q11
	Community and Cultural Experiences	Q12**
Institutional Outcomes	Course Outcomes	Q13, Q14

A decision needed to be made about which salient items would best represent each of the different constructs, and also show a relationship between language issues, overall satisfaction, and institutional outcomes. Of particular importance was maximising construct validity, so a range of literature was reviewed from both the linguistic and the higher educational domain to identify reliable scales which had been already been used and validated in previous higher education studies.

Section One: About You

It is beyond the scope of this study to investigate the influence of all personal characteristics on academic achievement and satisfaction, other than key independent variables which have been found to directly influence cultural and academic adaptation according to previous research, and to determine whether there are any identifiable differences in Institutional Experiences and Institutional Outcomes between respondents. Therefore, this section of the questionnaire addresses previously experienced undergraduate degree and pre-sessional courses (as students who have previously studied business or management subjects are more likely to successfully achieve academic adaptation), length of time in the UK (as this may affect international students' socio-cultural adaptation and language confidence), self-reports of language proficiency and confidence (as this may affect both adaptation and achievement) and attendance at pre-sessional language or business courses (as this may also affect both academic adjustment and achievement).

This section comprises four questions: three single-item questions on demographic and educational attributes: age, home country, and whether the respondents' previous degree was based on a business or management subject, and a fourth attribute on whether English is a native language, with a routing instruction to follow. If 'yes' is answered, respondents skip the next question and turn over the page, and if 'no', respondents are requested to continue to the next set of questions. Initially a fifth attribute, current Masters degree, was to be evaluated within this section, but due to layout restrictions, it was later moved to the end of the survey (Q15). It was felt that this particular item would not detrimentally affect the overall flow or structure of the survey.

Section Two: English Use and Proficiency

This section, to be answered only by international students, relates to a category on English language use and proficiency, which contains three single-item questions, and one six-item scale. The first two questions (Q5a and Q5b) are about pre-entry attributes, as to whether respondents completed one, or both, of a foundation English for academic purposes course in the UK, or a Pre-Masters business course, such as the Graduate Diploma from Nottingham Trent International College (NTIC). Positive answers on either part would then be routed to an indicator question on course length, which can vary from six weeks to over one year. The length of attendance on one or both of these courses also gives a good indication of initial English proficiency, as NTU policy dictates that the lower an applicant's IELT scores, the longer the period for which that applicant must attend a pre-sessional course prior to acceptance onto a Masters programme. The next question (Q5c) is based on Masgoret's (2006) sociocultural adjustment survey, and requests the total time spent in an English-speaking country (excluding time mentioned in previous answer) before a respondent started their Masters. Length of residence in the host country has been shown to correlate with language self-confidence and reduced anxiety (Ward and Kennedy, 1993; Matsuda and Gobel, 2004; Cheng and Erben, 2012) and increased level of socio-cultural adjustment which in turn positively affects successful academic adaptation (Perrucci and Hu, 1995; Spencer-Oatey and Xiong, 2006; Simic-Yamashita & Tanaka, 2010). This is also supported by the focus group results used to check content validity, with one example in particular of a Hong Kong student who, when asked if he had any difficulty adjusting to the UK's culture, said that he had spent a year in Australia before joining NBS, therefore he did not "really have so much surprise from England".

English language proficiency: The final question in this section (Q6) is intended to measure NNES's English language proficiency through the use of a self-rating scale of self-confidence in English use. Rather than using IELTS scores to measure language proficiency, this scale was used for a number of reasons. Firstly, language proficiency scores are not included in the main NBS database, so it is not possible to obtain IELTS scores and connect them with respondent surveys even were respondents to give permission to access their records. They could be asked on the survey to provide their scores, but past results from both focus group discussions for Document 3, and survey responses in Document 4, revealed that participants often did not remember either their overall test score, or their individual language scores with any degree of confidence, so self-ratings of language proficiency is a more reliable measure. Secondly, this study focuses primarily on student perceptions so it is logical that respondents provide their perceptions of their English proficiency. Thirdly, evidence has shown that there is good consistency between formal tests and self-assessments of NNESs' competence, thus it is seen as an effective measure (see Macintyre et al, 1997). Finally, "self-confidence is argued to be a more important predictor of language use and acculturative outcomes than actual linguistic competence…" (Yang et al, 2006, p.491). Self-confidence in language use is seen as a combination of perceived language proficiency (e.g. Noels, Pon and Clément 1996; Macintyre and Charos, 1996) combined with willingness to communicate (Hashimoto 2002, Liu and Jackson 2008): in other words, how willing and able students feel towards communicating in English. This has been shown as necessary for successful language communication (MacIntyre and Charos, 1996; Hashimoto, 2002; Matsuda and Gobel 2004) and therefore class and assessment activities. In addition, linguistic confidence has been found to be a predictor of socio-cultural adaptation (Clément 1986; Yang et al 2006; Yu and Shen, 2012; Yu, 2013) influential in overall academic success (Clément and Baker, 2001) so was seen as an important variable to test in this survey. Clément and Baker's (2001) English Language Confidence scale (**α** = .93) was used to determine NNESs' perception of language proficiency and willingness to use English. To maintain high internal consistency, the original 6-point Likert scale was used from (1) strongly disagree to (6) strongly agree, with a high score indicating high confidence in using English.

Table 3.2: English Language Confidence scale (Clément and Baker 2001)

1	I am able to read and understand most texts in English
2	I know enough English to be able to write comfortably
3	I believe that I know enough English to speak correctly
4	I am very confident in my ability to write English correctly
5	I can understand someone speaking English quite well
6	I know enough English to deal with most situations where I have to use English

Section Three: Course Experience

The 25 individual items comprising this section of the questionnaire were developed from two constructs, Teaching Effectiveness (18 items) and Peer Group Interactions (7 items). They were each confirmed as valid and useful survey instruments from previous literature, as is discussed in greater detail below.

Both academic and non-academic determinants of overall satisfaction were considered when designing the Teaching Effectiveness construct. To measure student perceptions of course teaching quality, scales were drawn from the NSS, originally developed and piloted by Richardson et. al (2007), on which results were subsequently reported by Marsh and Cheng (2008) and, for science subjects, Fielding et al (2010). Marsh and Cheng's (2008) purpose was to conduct factor analysis and multilevel modelling on the data from all participating HEIs over two years (2005 and 2006) of the 22-item UK's National Student Survey (NSS). They confirmed six factors as intended measures for the original NSS, but suggested that a seven factor solution was most appropriate by splitting the Assessment and Feedback factor into two. They also indicated that although there was much variance in response between different universities, the large sample size within each institution meant that differences were stable and highly reliable over time (r=.86).

Six of these seven scales from the NSS survey, showing a moderate level of internal consistency as reported by Richardson et al (2007), formed the basis of the Teaching Effectiveness construct for this survey: Teaching (α=.79), Assessment (α=.75), Feedback (α=.75), Academic Support (α=.83), Learning Resources (α=.77), and Personal Development (α=.82). The Personal Development scale was the most recent addition to student surveys (Wilson et. al, 1997), in order to reflect the growing importance and focus on developing employable skills within higher education courses. The seventh 'Organisation and Management' scale from the NSS was not included, as it was considered to have less relationship with students' teaching and support services quality perceptions, the main focus of the Academic System construct of this paper. A five point Likert rating scale, consistent with the design of previous instruments, was used to indicate level of agreement, from 'strongly disagree' through to 'strongly agree'. (NB: the current 21-item NSS can be found on the Higher Education Funding Council for England's website). The scales, some modified for this study, are presented in Table 3.3 below.

The *Good Teaching* scale contains four items which focus upon students' perception of teaching quality, in terms of their interactions with teaching staff. These included the teachers' enthusiasm and ability to explain, make the subject interesting and intellectually stimulating. A high score indicated good quality teaching as perceived by respondents.

Assessment: this sub-scale consists of two items based on clear marking criteria and fairness of assessment arrangements and marking, with a high score indicating positive perceptions in this area.

The *Feedback* scale contains three items pertaining to promptness, level of detail and clarification of feedback. A high score indicated effective feedback as perceived by respondents.

Table 3.3: Teaching Effectiveness Construct Items

Good Teaching Scale	
4	**Teachers are enthusiastic about what they are teaching**
9	The course is intellectually stimulating
19	My teachers were very good at explaining things
22	The teaching staff did their best to make the subject interesting
Assessment Scale	
8	**Assessment arrangements and marking have been fair**
12	Marking criteria have been made clear in advance
Feedback Scale	
3	Feedback on my work has come back in time
7	I have received detailed comments on my coursework
16	Most feedback I received helped me to understand how to improve future work
Personal Development Scale	
5	As a result of this course, I have more confidence in presenting my ideas
10	As a result of my course I feel confident about taking on unfamiliar problems
15	The course helped me gain a better understanding of people from different cultures
17	The course improved my skills in written communication
24	The course has developed my critical thinking skills
Learning Resources Scale	
1	The library resources are good enough for my needs
21	I have been able to access general IT resources when I needed to
Academic Support Scale	
6	Support has been available if I had extra learning needs (e.g. language, academic writing
13	I have been able to contact staff when I needed to

The *Personal Development* scale contains five items which aim to measure the extent to which the course has helped to develop the respondents' skills, which, because they are generic and not discipline-specific, could be considered as important transferable skills for employment. NB: Although part of the NSS, and therefore kept in this part of the questionnaire, this scale could have been considered within the Institutional Outcomes dimension of the author's conceptual framework, as it relates to the end result of students' educational experiences: generic skills and abilities that students are expected to have developed upon graduation (Clemes et al 2008). For this study, two new items were added based on course learning outcomes and focus group results; an item on 'critical thinking' to reflect the vocabulary from focus group findings, and one on gaining an understanding of different cultural groups, which reflected a key skill emphasised in NBS Masters courses. The three original items relate to the development of written communication and self-confidence, and the ability to cope with unfamiliar problems. Again, a high score reflects a strong perception of improved personal development.

Learning Resources scale*:* As service quality factors outside of the classroom have also been deemed as important to students' overall course experience (Richardson, 2005), the NSS's 3-item scale (Richardson et al, 2007; Marsh and Cheng, 2008) (**α** = 0.77) which measured the adequacy of the library, access to IT resources, and access to specialised equipment and facilities formed the basis of this construct. The latter item was not considered to be particularly relevant to this business school's Masters courses, and thus was removed. A high score signifies a positive perception of the university support services provision.

Academic Support scale: Whilst effective library resources are an essential support service, Masters students, especially non-native students who did not study undergraduate degrees in a British higher education institution, may require extra study or academic skills support to produce the required standard of work expected at Masters level. In addition, it has been recognised that international students, particularly those to whom English is not their native language, also require extra support in the way of language. Therefore, Marsh & Cheng's (2008) 3-item scale formed the basis of this scale, although only one item relating to ability to contact staff was unchanged. One item on making study choices was removed as it was more relevant to undergraduate courses, and one item on accessing advice and support was amended to accessing learning needs such as language support, which was developed from focus group findings and previous surveys (e.g. Kwan and Ng, 1999; Arambewela and Hall, 2009).

Peer-group Interactions (PGI) scale: The remaining seven questions provided in this section of the questionnaire relate to the Social System component of the conceptual framework. Although perception of academic quality has been found to be the most predictive measure of student satisfaction, other variables have been shown to play a significant role (Gibson, 2010). According to Pascarella and Terenzini (1980) a student's integration into a HEI's academic and social systems will affect academic adaptation and ultimately, performance. They report that student learning is affected by the extent to which peer groups are friendly, approachable and encouraging, concluding that for international students, a culturally diverse student population is more likely to influence "students' sense of belonging and satisfaction with their college experiences and their commitment to their institutions" (Pascarella and Terenzini, 2005, p 419). This supports other research findings that, outside of the classroom, social integration and sense of belonging are important factors in students' satisfaction with their overall course experience (e.g. Gibson, 2010; Arambewela and Hall, 2009). Therefore, Pascarella and Terenzini's (1980) validated scale (**α** = .84) was used as the basis for this part of the construct (Table 3.4 below). The wording of the scale was slightly modified from focus group findings and previous literature, to better reflect the Masters courses with their culturally diverse student population. Three items, marked by an asterisk, have been reverse coded. A high score indicates social adaptation and feelings of belongingness to the academic environment.

Table 3.4: Peer Group Interaction Scale (Pescarella & Terenzini, 2005)

*11**	*I believe most NTU students have beliefs and attitudes different from my own*
2	Since coming to NTU I have had close friendships with other students
14	The friendships I have made at NTU have been personally satisfying
*18**	*I wish I had made friends with more students from different cultures to mine*
20	As a result of this course I have made new friendships
*23**	*I don't know any students who would listen to me or help me if I had a personal problem*
25	I have a social support network at NTU with whom I can share study and personal experiences

Section Four: Academic performance

Three items, one cognitive and two affective, were used to measure academic performance. Because the respondents are current students, and actual results are not yet possible to determine, the first item was a question asking the respondent to predict their final grade classification. The second item was a 5-point rating scale question which aimed to measure participant's satisfaction with their academic performance to date. To maintain consistency with previously mentioned ratings, items were scored so that a higher score indicated a greater perceived level of happiness with their progress. These questions are included in an attempt to determine whether a relationship exists between respondents' perceived level of academic performance, and institutional outcomes (i.e. overall satisfaction, repurchase intention, and propensity to refer). The third item in this section is a self-reporting scale on perceived competence of academic reading, writing, listening and speaking based on a 9-point rating scale to correlate with IELTS (International English Language Testing System).

Section Five: Extracurricular Activities

This section was included in the survey because previous research findings indicated that students, and particularly international students, consider social and cultural experiences as part of their overall sojourn, not necessarily separating the course aspects from their wider experience. This is important when considering outcomes, and specifically IS's propensity to recommend the course or university to others. For example, according Tinto's (1993) study on student retention, it is essential to the student's experience that the institution builds feelings of belonging to their academic and social community. Therefore, the degree to which students participate in Extracurricular activities may also affect their satisfaction with their overall course experience. Although a number of student surveys included a general reference to 'social activities' (e.g. Byrne & Flood, 2003; Barnes, 2007) or 'recreational facilities' (Athiyaman, 1997), within a more general list of university service provision, few surveys examined this area in more detail..

Extracurricular Activities (XCA) scale: This is a 6 item scale developed specifically for this survey, although the idea comes from previously identified literature. A new item focuses on opportunities for travel, which attempts to capture beliefs from the focus group survey that this is an important factor in the assessment of overall experience for international sojourners. Two of the items, "social activities and clubs that I joined" and "social events that are provided for students" came from two similar surveys of Indonesian and Hong Kong students. Factor analysis showed a three-item social scale for Sumaedi et al's (2011) survey, with reasonable internal consistency indicated by Cronbach's alpha of .709, and a two-item scale for Kwan and Ng's (1999) survey with a lower, but still reliable, internal consistency (**α** = .66). The other two items were statements on events and tours with local businesses, and suitable career guidance, both reflecting specific NBS course context as mentioned by students in the focus groups.

In addition, it was decided to adjust the rating response anchors from the extent of importance, to the extent of agreement. In other words, previous surveys asked respondents to rate the extent to which specific social activities were important to their studies, so this was reworded to: "*my overall course experience was more satisfying because of the*.." followed by the statement of items, to better reflect the affective construct of satisfaction.

Section Six: Community and Cultural Experiences

This section is related to the Cultural System component of the conceptual framework. The one scale used in this section is designed to be answered only by international students. It takes account of previous research by the author and other academic studies, that students' ability to adapt to the socio-cultural environment affects their overall course satisfaction (e.g. Dunn, 2006).

Socio-cultural Adaptation (SCA) scale: This scale is a modification of Ward and Kennedy's (1999) 2-factor, 41-item Socio-cultural Adaptation Scale (SCAS) (**α** = .85), which was designed to measure the behavioural and cognitive difficulty experienced by sojourners in adjusting to a new culture. It has been found to be internally reliable with evidence of construct validity in different cultural contexts, for example of

Japanese students in New Zealand (Ward et al 1998), Chinese students in the UK (Spencer-Oatey and Xiong 2006), international students in Japan (Simic-Yamashita 2010), and German students in Austria (Renner et al. 2012). In the original study, higher scores reflected increased difficulty with sociocultural adaptation. However, scores have been reversed to fit with the remainder of the scales, such that increased scores will reflect a positive increase towards sociocultural adaptation. Although Ward & Kennedy's (1999) study compared perceived importance of each item to the extent to which respondents experienced difficulty with the item, this scale focuses only on the difficulty respondents' experienced with each item during their time on the course. Ten items were chosen and reworded to suit the particular context, based on Ward & Kennedy's (1999, p 662) assurance that the scale "can be easily modified according to the characteristics of the sojourning sample". Six items are based on Ward & Kennedy's (1999) first factor, relating to an understanding of local perspectives and intercultural communication, (e.g. '*seeing things from a different culture's point of view'* and '*understanding English jokes and humour'*), and four items are based on the second, behavioural, factor of managing impersonal interactions (e.g. '*dealing with people in positions of authority'* and '*getting used to living in Nottingham'*).

Section Seven: Institutional Outcomes

This final section corresponds with the conceptual framework component of the same name. As discussed within the literature review, one of the most popular measures of course outcomes in higher education is student satisfaction with their learning and teaching experience (e.g. the CEQ in Australia and the SSS in the UK). However, few studies examine the consequences or outcomes of the course experience beyond student satisfaction, namely, the institutional outcomes which relate to students' future behaviours and therefore of strategic importance to universities. The three outcomes of student experience have been hypothesised for this study as overall satisfaction, repurchase intention, and referral intention, based on constructs from Clemes et al (2008, 2013). The first measure, 'Satisfaction', is based on both the CEQ and NSS instruments which contained a single-item construct asking students to rate their overall satisfaction with course quality. To this, another item was added from Clemes et al's (2013) Satisfaction (**α** = .867) construct regarding overall satisfaction of students' university experience. As the two items have slightly different emphases, one being on the course and the other on the university, it would be possible to examine whether there was any difference in respondents' perception between the two. The second construct, 'Repurchase Intention', is taken from Clemes et al's (2008,

2013) ‘Future attendance’ (**α** = 0.855) scale and pertains to student’s willingness to return, measuring loyalty to the University. This consists of two items: choosing the same university if starting over, and choosing the university for future study. The second item had to be reworded, as it was not applicable to Masters study education; the statement asked if respondents would choose the university for further education, but a Masters course is often seen as the highest level of academic study required for good career prospects, and few international students would therefore continue to doctoral level. Secondly, the choice to take another Masters course for international students would most likely be constrained by factors such as the high cost of education, and current visa restrictions. Therefore, the wording is now: “*if I was interested in taking further study, I would return to NTU if it was possible to do so*”, to better assess whether respondents would be likely to ‘repurchase’ on a more hypothetical basis.

Also from Clemes et al (2008, 2013), the ‘Referral Intention’ construct shows good internal reliability (**α** = 0.856), and contains three items. It was decided to redesign the response scale using the Net Promoter method by Satmetrix (2006) in order to evaluate the results as a Net Promoter Score (NPS) calculation. Starting with ‘*How likely is it that you would...*.” respondents were asked to indicate their answer on a scale from 0 *(‘”very unlikely’*) to 10 (“*very likely*”). The first question: *Recommend the University to someone who seeks your advice?* takes account of previous focus group results that international students would only feel inclined to refer their university if they felt that it was a viable option for the enquirer. Both this and the third question, *Encourage friends or family to go to this University?* and *Say positive things about this University to other people?* were developed to measure advocacy or referral behavioural intentions.

Finally, the single item “*I feel a sense of belonging to NTU’* was added based on previous findings that students who improve their language proficiency develop a sense of belonging in their host community (Fan 2010; Yu & Shen 2012) and that sense of belonging results in enhanced motivation and satisfaction with their course experience (Smith and Bath, 2006). Conversely, little or no belongingness could suggest lack of engagement, resulting in low academic adjustment to the course which in turn reduces commitment to the institution (Tinto, 2012) and ultimately, results in an absence of referrals, or at worst, negative referral behaviour.

Deciding upon structure and questionnaire wording is obviously important when designing a questionnaire, but other aspects of pilot work are also essential to consider, such as avoidance of bias (Brace, 2004) and layout (Oppenheim, 1992). These issues are considered in the following section.

Other Design and Layout Considerations

Sources of Bias: During the development of the survey instrument, potential sources of bias were considered, in an attempt to negate or reduce the potential for these biases to affect results. In self-completion questionnaires, biases can result from self-reporting, the items themselves, the context of these items within the survey instrument; or, the context in which the survey is conducted (Podsakoff et al 2003). Reassuring respondents that there are no 'right' answers so they can be completely honest, that their answers will be anonymous and confidential, and ensuring that they are in a quiet and relaxed environment when completing the survey, are common practices that may reduce bias. This was provided by way of a Participant Information Sheet (see Appendix 2) attached to the questionnaire which students were asked to read and agree to before completing the questionnaire.

A number of different rating scales were used throughout the survey instrument, although for pre-existing constructs rating scales were retained in an attempt to maintain internal consistency. Even so, a number of aspects were considered before developing the Likert-type rating scales, in order to avoid possible bias. The first was the potential for '*acquiescence effect'*, or tendency of respondents to agree with attitude statements made irrespective of content (Brace, 2004). This is of particular concern due to the fact that most of the pre-existing scales used for this survey are positively phrased. Whilst some statements can be made negative, the potential change in meaning might affect the interpretation of the item. One scale, that used to measure peer-group interactions, did include negatively-worded items which may reduce the 'yea-saying' tendency somewhat.

Another consideration was the order of the response anchors; it has been found that respondents show a significant bias to select responses on the left, i.e. the '*primacy effect'* (Brace, 2004, Chan 1991). It has been suggested that this is because their information-processing sequence is from left to right, and a respondent will attempt find the first acceptable answer with the least effort (Chan 1991). Therefore, if the positive anchor is presented first, overall results are more favourable, and if negative anchors are first, responses are more negative (Artingstall, 1978 as cited in Brace, 2004). However, these are primarily American research findings; it may be that respondents who traditionally read their native language from right to left, such as in

Hebrew and Arabic, or are bi-directional readers, such as the Chinese and Japanese, are not subject to the same bias.

A further response bias to consider was the ‘central tendency’ effect, in which respondents avoid choosing an answer at either extreme of the scale (Brace, 2004). This has been more recently researched in cross-cultural studies. Results from Chen et al (1995) and Harzing et al (2009) identified that Asian students are much more likely to provide moderate ratings rather than at either extreme, as was favoured by the American students. Additionally, Chen et al’s (1995) study found that response bias correlated with individualism and collectivism respectively. Supporting findings that individualism lends itself to extreme responding, Smith and Fischer’s (2008) research also found that collectivism showed a leaning towards acquiescence. Increasing the response choices (from 5 to 7-points for example) was considered as a possibility which may encourage respondents to move away from the mid-point (Harzing et al, 2009). He saw this as allowing for a more valid result and ability to make more relevant comparisons.. However, this may even reduce validity, as many alternatives can lead to more random responses (Clark and Watson 1995). However, whilst a few research studies considered the effect of different cultures on response styles, there is little empirical evidence on cross-cultural responses or the extent to which anchor orders affect validity (van Herk et al 2004). Moreover, during the piloting of the questionnaire (discussed in Stage Three below) there was no clear evidence of cross-cultural bias with the international respondents seemingly comfortable using the extreme ratings in completing the questionnaire.

Another tactic for reducing the potential for response bias could be to exchange scale anchors partway through the survey, although common practice dictates that the scale order be consistent throughout (Brace, 2004) in order to reduce cognitive-processing time (Podsakoff et al, 2003). Taking all of these factors into consideration, it was subsequently decided not to alter rating scale anchors for this survey. Following Brace’s (2004) advice, the rating scales would be ordered from negative to positive, in an attempt to avoid compounding the two effects of primacy and acquiescence, and to keep the scale anchors consistent to make it easier and quicker for respondents to complete the questionnaire.

As mentioned above, one of the most fundamental causes of bias can arise from the items themselves, either through a poorly worded question or one which is misinterpreted (Oppenheim, 1992; Podsakoff et al, 2003), thus it is important to ensure that scale items are clear, concise and unambiguous. The process by which this was determined is reviewed below, and in the next section, following the production of the draft questionnaire.

Layout and Presentation: Following the iterative process of constructing, editing and refining of the scales and items to be included and decisions on ordering, as discussed in the section above, the next stage of development was to determine an attractive design and layout for the questionnaire. In line with guidelines on questionnaire design from Oppenheim (1992), and from previous experience, layout is of fundamental importance to reduce non-response rates. For example, when respondents completed the paper-based survey for Document 4's research, a few did not complete question 2 on gender. The most likely explanation is that the question was overlooked due to it being placed horizontally, rather than vertically, after question 1 on age. Space and position of questions therefore were key elements of focus; it took much drafting and reworking to ensure questions were not squeezed too closely together, could clearly be seen, and individual sections did not go over two pages, whilst ensuring that the overall questionnaire did not deter respondents by being too lengthy. The final survey ran to 4 sides of A4. Clear section headings were needed to give the survey a logical flow and order, and according to Brace (2004), give respondents a feeling of achievement as each section is completed. It was also decided to make use of pale colours and boxes for more visual appeal, and to distinguish the two sections which were to be answered only by international students.

Following the production of a draft questionnaire, five MSc Marketing students from a more recent cohort which was not taking part in the final survey were interviewed briefly to ensure that they understood and could answer all the questions, and then asked for feedback on possible improvement. Subsequently, a few minor changes were made to the design and wording to improve the flow and clarity of the questionnaire.

Stage Three: Piloting the Survey

The next step in the development process was to pilot the questionnaire. Firstly, academic colleagues experienced in survey design, and interested parties such as course leaders were asked to consider the survey's overall layout and flow as well as to check that no questions were unclear, ambiguous, double-barrelled, or leading (Clark and Watson, 1995). Although most of the constructs in the questionnaire had been used in previous studies with valid and reliable results, their success in this questionnaire could not be assumed. The wording of items used in undergraduate student satisfaction surveys have been criticised for not being suitable for all students (Richardson, 2005) and so all needed to be checked for their appropriateness to taught postgraduate qualifications. A few minor modifications were made to structure and wording as a result of colleague input.

A major priority of piloting is to improve the internal validity of the survey instrument; a series of steps were followed as recommended by Peat et al (2002, in van Teijlingen and Hundley, 2002) from administering to pilot subjects in a similar way as would be conducted in the main study, to asking for feedback, recording the time taken to complete, removing or rewording any questions that were ambiguous, and checking that all questions were answered appropriately. An essential step in piloting this study was to confirm that all items were understood and interpreted correctly by NNES respondents as the previously used scales adapted for this survey were not, in the main, designed with international students in mind. Hence, particular care was taken over the language used, quality of the instructions and individual items. A fundamental impetus for piloting the questionnaire was to ensure understanding and clarity of meaning, as respondents may find items easy to answer but misinterpret them, thereby providing spurious answers (Oppenheim, 1992). In addition, the length of time to complete the survey can deter respondents; a paper version of D4's questionnaire was piloted and no comments were made about the time taken to complete, but a number of those subsequently administered online contained non-completed items in the final section, which may have been due to survey fatigue, as it can take international students up to three times as long to comprehend their reading compared to native English speakers (Schmitt, 2005). With these objectives in mind, a representative sample of six international Masters students mid-way through their studies, i.e. from the January 2015 intake, were chosen with which to pilot the questionnaire. Choosing students from this cohort was necessary because of the author's intention to administer this survey to the entire population of the September 2014 NBS Masters courses with registered ISs). Students were instructed not to repeatedly read something in an attempt to grasp its meaning, but instead to make a note of the words, phrases or sentences they were unsure of and feed those back in the discussion afterwards. Completion of the questionnaire was noted as taking between 9 and 11 minutes.

These pilot respondents were then queried about their individual understanding in order to check validity and reliability of the questionnaire and individual items. Overall, the respondents agreed that they were confident understanding the majority of items and instructions, and when single words were not understood, they explained how they had made assumptions from the meaning of the overall statement (e.g. '*recreational'* was not a recognisable word, but combined with '*sports'* and '*facilities available'* they were reasonably confident in its meaning). In addition, students' responses were examined in relation to their use of the rating scales to determine whether more of the middle rather than extreme values were chosen. This was as a result of lessons learnt from a large scale study by Chen et al (1995) which identified cultural differences in response styles, with Japanese and Chinese students showing a prevalence towards choosing midpoints on 5-point Likert scales compared to North American students. As this could generate significantly different results between individualistic (e.g. British and European) and more collectivistic (e.g. Asian and African) students, there was much consideration when designing this questionnaire on whether a 7-point scale would reduce this bias. However, all students had selected 'Strongly agree' and 'No difficulty' for a range of items across different sections of the questionnaire. Although six responses can only provide an indication, there was no evidence of response bias that warranted changing to a 7-point Likert scale and so the scales were unchanged. As a result of this piloting, amendments to a few item wordings and slight design modifications were made and confirmed with the students to improve the clarity and flow of the questionnaire (see Appendix 3 for the final version).

Careful consideration during development in relation to all of the above stages meant that creating an effective questionnaire was a lengthy process, but essential in order to produce a questionnaire which maximised structural validity, i.e. that the items selected for each scale interrelate and reflect the particular construct to be measured (Clark and Watson, 1995). The quality with which this was carried out has implications for the analysis stage, and ultimately, validity and usefulness of the overall results. The following section now discusses the decisions as to the choice of respondents and the procedure for distribution.

Stage Four: Distributing the Survey

The survey was distributed to full-time Masters students attending Nottingham Business School, and the intention was to target the entire population. A decision needed to be made on delivery method, i.e. whether to distribute questionnaires online which would reduce the potential for interviewer bias (Oppenheim, 1992). On the other hand, results from previous studies (e.g. Aldridge and Rowley 1998) and as reported in Document 4, have shown evidence of completing surveys online, thus there is a high likelihood of low response rates. As such, results might misrepresent or distort the views of the larger population, leading to a non-response bias (de Vaus, 2014). As a result of low responses achieved on his course experience postal survey to students, Richardson (1994) recommended improving response rates through distributing survey instruments within the classroom. Therefore, it was decided that the questionnaires would be group-administered, with students requested to complete a survey for self-completion during scheduled class time. This would ensure a high response rate, and allow for the opportunity to explain the purpose of the questionnaire and any explanations as to process, with minimum interviewer bias (Oppenheim, 1992). Once ethical approval had been agreed by the NBS Ethics Committee, the respective course leaders were emailed to confirm the days on which the questionnaire could be distributed to students, asking that tutors be instructed to set aside 15 minutes to explain the purpose behind the survey and to request students to complete the survey in class.

In order to gather enough responses to produce statistically significant data, all students who were attending Masters programmes in the Nottingham Business School were given the opportunity to participate; the original estimation was 200 potential respondents (the central database was not up-to-date so the total was determined from individual registers). Timing was very important; respondents needed to be nearing completion of their course so that they could reflect upon their overall course experience and satisfaction, as well as provide a good indication of final course results. The survey obviously needed to be distributed whilst students were still in attendance, therefore it was delivered during the final two weeks in June and first week in July (see Appendix 4 for tutor guidance on distribution). A total of 188 surveys were distributed to classrooms, and 137 questionnaires were subsequently collected. Two questionnaires were subsequently judged not to be suitable and were removed from analysis, providing a final total of 135 usable surveys. Appendix 5 provides details of participating courses, delivery, and numbers collected.

CHAPTER 4: ANALYSIS AND PRESENTATION OF FINDINGS

The following subsections identify key findings following data collection. Prior to conducting analysis using SPSS version 22, decisions needed to be made on how to code each of the items on the questionnaire together with every possible response, before it could be entered into a data file. Following Pallant's (2013) recommendations, all of the relevant information was recorded in a Codebook, which can be found in Appendix 6. The data was then subjected to analysis, before then using AMOS version 22 for structural equation modelling. Results are presented in the order that the techniques were conducted. Firstly, descriptive statistics are presented, i.e. relevant characteristics of the sample population are described and analysed prior to conducting more complex analysis. Next, the results of factor analysis are presented which evaluated the survey instrument constructs. This was conducted to confirm their reliability and to determine any underlying patterns of occurrence, before reducing the large set of variables into smaller sets of factors. The results of the structural equational modelling are then reported, which determine the direction and strength of relationships between the various data. Finally, a brief conclusion is offered.

4.1 Descriptive Statistics

Frequency and other descriptive statistics were produced on the nominal data to gain an initial sense of the composition of the survey sample, and as a first step in analysing the data. A summary of respondents' geodemographic information is presented below.

Table 4.1: Descriptive Statistics

		Category	Frequency	Percent
Age		21	7	5
		22	15	11
		23	27	20
		24	27	20
		>24	58	43
	TOTAL		**134**	**99**
	Missing		*1*	*1*
Prior Business/Mgmt Degree		Yes	94	70
		No	40	29
	TOTAL		**134**	**99**
	Missing		*1*	*1*
Home Region (combined countries)		UK	20	15
		N & E Europe	11	8
		W & S Europe	6	4
		E & SE Asia	51	38
		Near & Middle East	15	11
		Africa	20	15
		India	12	9
	TOTAL		**135**	**100**

English as 1st language	Yes	32	24
	No	103	76
	TOTAL	**135**	**100**
Residence in English- speaking country	< 1 month	37	37
	1-3	7	7
	4-12	16	16
	> 12 months	39	39
	TOTAL	**99**	**99**
	Missing	*4*	*1*

The data presented above was collected from 135 questionnaires. The majority of respondents (51%) were between the ages of 22 and 24, and 43% were 25 years or older. Those who commenced their Masters with a prior degree in a business or management subject accounted for 70% of the total. Students from East and Southeast Asia represented the largest regional group at just over one-third (38%) of the total sample, followed by two regions at 20% each, the UK and Africa. Non-native English speakers represented the largest group at three-quarters (76%) of the respondents. Those who had resided in a native English country for three or less months prior to commencing their Masters accounted for 44% of respondents whilst more than one-third (39%) had been residents for more than one year.

Data related to Question 5, which asked NNESs for information on their pre-sessional course completion and length of attendance prior to commencing their current Masters course, has been summarized below.

Table 4.2: Pre-sessional Course Completions

Prior course completion:	Yes	%	No	%	Total	Missing
Language foundation (EAP)	50	49	53	51	103	0
Pre-Masters course	17	17	85	83	102	1
Either pre-sessional course	54	53	48	47	102	1

Length of attendance		Min	Max	Mean	Std. Deviation
Language foundation (EAP)	(weeks)	6	30	14.10	8.728
Pre-Masters course	(months)	6	12	7.31	1.815

Of the 103 respondents who identified themselves as NNESs, the majority (65%) completed at least one pre-sessional course, with 11% of them completing both courses, prior to commencing their Masters study. Half of the NNES respondents (49%) attended a pre-sessional English for Academic Purposes (PEAP) with a mean of 14 weeks, and 17% attended the Nottingham Trent International College (NTIC)

Pre-Masters Business course, with a mean of 7 months. A slight minority (47%) of the NNES respondents attended neither of the pre-sessional courses prior to commencement of their Masters.

For this research study, the main variables of interest relate to NNESs English language use and proficiency, together with overall satisfaction and loyalty outcomes. Hence, frequency of responses and statistics for these variables are also presented below.

Table 4.3: Confidence in English Use

Q6 Items	Min	Max	Mean	SD
… read and understand most texts in English	2	6	5.13	.977
…enough English to be able to write comfortably	1	6	4.80	1.115
… enough English to speak correctly	1	6	4.62	1.206
…confident in my ability to write English correctly	1	6	4.44	1.234
…understand someone speaking English quite well	2	6	5.01	.965
…enough English to deal with most situations where I have to use English	1	6	4.92	1.073

There were no missing responses for this question (n=103). With rating scores of between 1 (strongly disagree) and 6 (strongly agree), the means indicated moderate agreement with most statements, and show the overall confidence that NNESs had with using English by the final month of their Masters course. The lowest mean scores were on speaking and writing correctly, and the slightly higher standard deviations (SD = 1.206; SD = 1.234 respectively) point to a more varied response. The analysis also shows that only 15% and 17% respectively were not confident with their proficiency in that element.

Table 4.4: Satisfaction and Loyalty Responses

Q13 Items	Min	Max	Mean	SD
Overall, I am satisfied with the quality of this course	1	5	3.83	1.052
I have had a satisfying experience at NTU	1	5	4.04	1.010
I feel a sense of belonging to NTU	1	5	3.90	.928
I would still consider NTU as my first choice if I could start over again	1	5	3.51	1.237
If I was interested in taking further study, I would return to NTU if it was possible to do so	1	5	3.43	1.265

There was a total of 134 respondents, with one missing response, on this particular question. With a mean score of 4.04 (1 = strongly agree to 5 = strongly disagree), results revealed that 81% of the respondents were satisfied with their NTU experience, and over one third of them strongly agreed. Of those, only 10% of the respondents disagreed with the statement. Satisfaction with course quality results showed a lower mean of 3.83, although almost three-quarters (72%) of the respondents were satisfied. The most satisfied students were those from the Marketing courses, with no dissatisfaction scores (n=28/31), Economics (n=5/5), and Management and Finance (n=6/6). There were 101 respondents (75%) who felt a sense of belonging to NTU. The latter item is connected to relationship commitment (Lam et al 2004), institutional commitment (Tinto, 1993) or affective commitment within the loyalty construct (Shemwell et al, 1998). In comparison, for the two items pertaining to restarting at NTU or returning for another period of study, results on both indicated that only 55% agreed. These two items are related to the behavioural component of loyalty, i.e. favourable repurchase intention (Clemes et al, 2008; Kim, 2011) or continuance commitment (Shemwell et al, 1998).

Table 4.5: Referral Intentions

Q14 Items	Min	Max	Mean	SD
Recommend this University	0	10	6.41	2.517
Encourage friends or family to go to this Uni	0	10	6.33	2.629
Say positive things about this University	0	10	7.33	2.192

All respondents (n=135) completed this question. These items were on a rating scale from 0 to 10, with 10 being most likely to provide favourable referral intentions, in line with the accepted Net Promoter Score scale (Satmetrix, 2006). As seen in Table 4.5, respondents' likelihood of recommending the University was past the mid-way scale point of 4.5, indicating a positive score. Interestingly, the third item, which relates to positive word-of-mouth, was perceived more favourably, as it achieved a higher mean (7.33) than the other two items. However, if this is analysed according to the NPS model, anyone who scores below 7 is seen as a 'detractor' and more likely to generate negative word of mouth; a score of 7 or 8 suggests a 'passive' respondent; only those scoring 9 and 10 are considered 'promoters' of the organisation (Satmetrix, 2006). The frequencies of the 'passive' and 'promoter' categories are shown in Table 4.6 below. In comparison with the responses shown in Table 4.5, these loyalty responses were more widely dispersed, as shown by the higher standard deviations, indicating that there were more scores at the lower end of the scale. Overall, these responses were not as positive as was expected, given the higher satisfaction ratings.

Table 4.6: Frequency Statistics - Referral Intentions

Scores	Passives - 7 - 8		Promoters - 9 - 10	
	Frequency	**Percent**	**Frequency**	**Percent**
Recommend this University	49	36.3	26	19.3
Encourage friends or family to go to this Uni	44	31.6	28	19.7
Say positive things about this University	49	36.3	47	34.8

4.2 Factor Analysis and Reliability Measurements

Following the advice of Pallant (2013), the first step in factor analysis is to assess the suitability of the data, by way of considering the sample size and intercorrelations between each item. There is no one accepted number regarding size, other than the view that the bigger the sample, the better. However, there is some agreement that smaller sample sizes can be suitable for factor analysis as long as they have variables which load above .80 (Tabachnick and Fidell, 2013 in Pallant, 2013). For statistical measures assessing the strength of item intercorrelations, coefficients above .3 within the correlation matrix have been recommended by Tabachnick and Fidell (2013, in Pallant, 2013). In addition, SPSS can produce two statistical measures to help assess whether factor analysis is suitable: Bartlett's test of sphericity (Bartlett, 1954 in Pallant 2013) should show a significance (*p*) of .05 or less, and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Kaiser 1970, 1974 in Pallant, 2013) should show a minimum value of .6 (with a maximum possible of 1).

To determine whether interval questions in the survey were internally consistent, i.e. assessed the same construct, reliability tests also needed to be conducted (Salkind, 2012). The most common measure of scale reliability is Cronbach's Alpha Reliability Measurement (Field, 2013). As a general guideline, an acceptable measure for a scale should be above .7 (Pallant, 2013). Field (2013) recommended that reliability analyses should be applied separately to all subscales identified, so Cronbach's Alpha coefficient was computed for each factor or sub-factor.

The six items of the English Confidence scale were subjected to principal components analysis (PCA) with oblique rotation. The sampling adequacy was verified by the KMO measure (KMO=.84), and Bartlett's test (*p*=.000), therefore factor analysis is considered appropriate. The next step is to consider how many factors to extract by identifying eigenvalues (i.e. the variance of the factors) which are higher than Kaiser's criterion of 1 (Pallant, 2013). Only one component with an eigenvalue greater than one was revealed, explaining 77.9% of the total variance. Examining the screeplot also confirmed that one component should be retained. Cronbach's alpha was .94, which shows very good internal consistency and confirms that the scale is measuring the same underlying construct.

PCA with oblique rotation was conducted on the 18 items of the Teaching Effectiveness scale. The KMO measure of .88 and a value of significance with Bartlett's test verified the adequacy for factor analysis. The analysis revealed four components with eigenvalues exceeding one (1), explaining a total variance of 62%. The original construct contained six scales from Marsh & Cheng (2008), but the results of this factor analysis only partially supported their results. Instead of six scales, four were identified. The eight items in the first factor referred to the skills and knowledge gained as a result of their academic course, which are transferable to the workplace, and have thus been labelled 'Competencies'. Again, in contrast to Marsh and Cheng (2008), the first factor is a combination of their personal development scale plus three additional items, each from a different original scale. The items '*feedback I received helped me to understand how to improve future work'* loaded onto the first factor, suggesting that students saw that as a competence that they developed whilst on their course. The item '*I have been able to contact staff when I needed to*' also seems to have been interpreted by respondents to mean that they now feel they have the ability or capability to approach staff, rather than its original intended meaning of staff availability. A rather unusual item to have loaded on the first factor is '*the course is intellectually stimulating'*, which suggests that respondents have also interpreted this as a developed capability, i.e. rather than it being the responsibility of the course team to deliver an intellectually stimulating course, the teacher/student interaction has awakened in the student an interest in more cerebral or intellectual matters. The second factor has loaded the same two items as in the original scale, labelled 'Learning Resources'. The third factor relates primarily to student/teacher interaction in the classroom. This has been labelled 'Good Teaching' based on the original three items from Marsh & Cheng's (2008) 'good teaching' scale which similarly loaded onto this factor, together with two other items around extra learning support and prompt feedback, suggesting that respondents also associated these two items with effective teaching. The fourth factor showed both loadings from the original 'Assessment' scale with the addition of '*I have received detailed comments on my work*', suggesting that 'detailed comments' has been linked to formal written assessment.

Table 4.7: Factor Analysis – Teaching & Learning Effectiveness

		Factor 1: Competencies	Factor 2: Learning resources	Factor 3: Good teaching	Factor 4: Assessment
24	critical thinking skills	.838			
5	confidence presenting ideas	.773			
10	tackle unfamiliar problems	.734			
15	better cultural understanding	.705			
17	written communication skills	.702			
9	intellectually stimulating course	.636			
16	feedback helped to improve	.611			
13	able to contact staff	.578			
1	library resources		.850		
21	access general IT		.725		
4	enthusiastic teachers			.739	
3	feedback prompt			.664	
6	support for learning needs			.634	
22	teachers made subjects interesting			.602	
19	teachers good at explaining			.532	
12	clear marking criteria				.877
8	assessment/marking fair				.535
7	detailed coursework comments				.488
	Eigenvalues	7.2	1.5	1.3	1.0
	% of variance	40.0	8.5	7.4	5.8
	Cronbach's **α**	.89	.67	.80	.66

Note: factor loadings less than .4 are not included

Two of the four factors, Competencies and Good Teaching, had high reliabilities (Cronbach's **α** = .80 and .89). Factors 2 and 4 did show somewhat lower reliabilities (**α** = .67, .66) but this is not surprising, as the value of alpha is sensitive to the size of the factor; it will increase as the number of items increase (Field, 2013), and these scales only had 2 and 3 items respectively. When alpha is less than .7, Pallant (2013) recommends checking inter-item correlations to confirm reliability; in both factors, the Corrected Item-Total Correlation values are all between .42 and .52, with Inter-Item Correlation means of .5 for Learning Resources, and .4 for Assessment, which suggests a reasonably strong relationship between the items, and therefore acceptable internal consistency.

PCA analysis was also run for the Peer Group Interaction scale; KMO was .754 and Bartlett's test was significant. Two factors were revealed with eigenvalues greater than 1, which explained 56% of the total variance (Table 4.8, below). The first factor showed a strong loading of four positive affect items, and is interpreted as 'Social Relationships'. Negative affect items loaded strongly on the second factor, and seemed to relate to an undesirable feeling of being dissimilar and unconnected from peers, thus was labelled 'Otherness'.

Table 4.8: Factor Analysis – Peer Group Interactions

		Factor 1: Social Relationships	Factor 2: Otherness
14	The friendships I've made at NTU have been personally satisfying	.86	
2	Since coming to NTU I have had close friendships with other students	.85	
20	As a result of this course I have made new friendships	.79	
25	I have a social support network at NTU with whom I can share study and personal experiences	.62	
11	I believe most NTU students have beliefs & attitudes different from my own		.69
23	I don't know any students who would listen to me or help me if I had a personal problem		.63
18	I wish I had made friends with more students from different cultures to mine		.59
	Eigenvalues	2.6	1.3
	% of variance	37.1	18.4
	Cronbach's α	.79	.29

Note: factor loadings less than .30 are not included

The first factor had high reliability, based on the cut-off point of .7 for acceptable values (Pallant, 2013), but the second factor had low reliability (**α** = .29) indicating questionable internal consistency. In addition, in the Corrected Item-Total Correlation column of the Item-Total Statistics (Table 4.9 below) which indicates the correlation of each item with the scale's overall score, all items showed low correlations with the scale overall, and removing any of the items would not substantially improve the overall reliability (Field, 2013). Therefore, it was decided to remove this subscale from further analysis.

Table 4.9: Item-Total Statistics – Otherness subscale

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
I believe most NTU students have (different) beliefs ...	5.6119	2.751	.215	.048	.122
I don't know any students who would listen to me...	4.1791	2.223	.132	.022	.297
I wish I had made friends with more students from different...	5.6269	2.657	.148	.033	.239

The six items of the Extracurricular Activities scale were subjected to PCA. The KMO of .709 and statistical significance in the Bartlett's test supported the suitability of factor analysis. One factor had an eigenvalue over 1, which explained 52% of the variance. Cronbach's alpha was .81, indicating good internal consistency.

For the ten items in the Socio-cultural Adaptation scale, a KMO of .89 and significance reached on Bartlett's test supported the factorability of the scale. Two factors with eigenvalues exceeding 1 were extracted, explaining 60% of the variance. However, in Ward and Kennedy's (1999) original scale the first factor was behavioural, and labelled 'managing impersonal interactions' whilst the second factor was cognitive and related to 'understanding of local perspectives and intercultural communication'. The outcomes here do not replicate their results, as they are not split into 'behavioural' and 'cognitive' based factors. In addition, there are a number of cross-loadings, and just two clearly loaded items for the second factor which is not ideal. When the 'living independently' item was removed, as it showed the lowest correlation with other factors (only two correlation coefficients above .3) and indications that the alpha coefficient would increase if removed, the result was a KMO of .90, p=.000. With the eigenvalues showing one component greater than 1, explaining 53% of the variance, and strong loadings for all remaining items, the extraction of one factor was confirmed. All items load between .482 and .832, and the factor had good internal consistency, with a Cronbach's alpha of .88.

Institutional Outcomes: Because the 3 overall constructs measuring commitment, repurchase intention, and referral intention could be considered as different aspects of loyalty, they were combined and subjected to PCA to determine whether they could best be represented by one factor. One component was extracted (KMO = .864) representing 75% of the variance, with all six factors loading strongly; this factor has thus been labelled 'Loyalty'. Cronbach's alpha was reported as .91, signifying very good internal consistency.

4.3 Hypothesised Model Testing

The second phase of analysis involved testing the hypothesised model. Because of its complex nature, and to allow mediation and moderation analyses to be conducted, a structural equation modelling (SEM) approach was followed, using IBM AMOS (Analysis of MOment Structures), version 22. As recommended by Weston and Gore (2006), testing the proposed model is best done in two stages; the first stage estimates a measurement model which comprises the paths between the latent variables and their observed measures, and then the second stage involves estimating the full structural model, which depicts the paths between the different latent variables. The process in the first step uses confirmatory factor analysis to test that indicators do load on the latent variables as had been hypothesised, and includes the model-fitting process, the primary purpose of which is to determine goodness-of-fit between a hypothesised model and the sample data (Byrne, 2010). Because it is rare for a model to show an exact fit and problems are often encountered at this stage, it is recommended that changes are made to the measurement model before the second step commences (Weston & Gore, 2006). As the main objective is to find the source of the misfit to determine the most meaningful and well-fitting model, "the whole approach is model generating, rather than model testing" (Joreskog, 1993, p. 295 in Byrne, 2010).

Confirmatory Factor Analysis (CFA)

The overall model (shown in Figure 4.1 below) was tested via CFA but this did not achieve convergence. Subsequently CFA was performed on the multi-indicator factors which were subject to EFA in SPSS; namely, **English Confidence** (8 indicators), **Social Relationships**, **Extracurricular Activities**, and **Sociocultural Adaptation**. Prior to analysis, the data was adjusted for missing values, as advised by Byrne (2010), using IBM SPSS to replace each missing variable with the mean value.

To evaluate the measurement model, it is essential to firstly determine model fit. Chi-square (χ^2) is the most consistently reported test statistic for SEMs with a non-significant result indicating a good model fit (Weston & Gore 2006). However, as it tests whether the model fits the data exactly (a very rare occurrence) and it is very sensitive to sample size and number of parameters, in reality it is difficult to obtain a non-significant chi-square (Weston & Gore 2006). Byrne (2010, p26) goes so far as to assert that chi-square has "proven to be unrealistic in most SEM empirical research" and recommends an alternate index of fit, the normed chi-square, (χ^2/df). More alternative indices to help evaluate model fit have also been proposed, although there is much debate over acceptable values for these indices and a number show recognised problems with fit (Byrne, 2010, Bagozzi & Yi, 2012, Weston & Gore, 2006). To address the various limitations, fit indices have proliferated in the last thirty years, which assess practical fit (Bagozzi & Yi, 2012). Although researchers are recommended to report several of these indices to best interpret goodness-of-fit, different software produces different indices, and there is, as yet, no agreed standard format for which indices to report (Weston & Gore 2006), meaning that comparability between studies is unfeasible. This wide choice of indices presents further problems, and one needs to consider other factors such as sample size and model complexity in determining which indices to report. Bagozzi & Yi (2012) identify the most recognised indices to be RMSEA (root mean square error of approximation), the TLI or Tucker and Lewis index (also referred to as the non-normed fit index or NNFI), the CFI (comparative fit index) and the SRMR (standardized root mean square residual). Because these four indices meet different criteria between them and provide a reliable evaluation of overall model fit Bagozzi & Yi (2012), and in the absence of agreed standards, these will also be reported.

CFA showed that all model fit indices were significant ($p < .001$) although a few of the indices indicated that there were some issues with fit. Informed by the modification indices, which portray evidence of misfit (Byrne 2010), it was seen that model fit could be improved by co-varying the measurement errors to some of the larger error variances. This provided a much improved model fit, with all latent variables significantly related to their constructs, and having factor loadings above 0.4.

Second-order CFA was tested on two factors. Firstly, **Teaching Effectiveness** was tested following a hypothesis *a priori* that responses could be explained by four first-order factors (Good Teaching, Competences, Assessments, and Learning Resources). Secondly, the **Loyalty** construct was tested, again based on *a priori* research, and it was found that responses could effectively be explained by two first order factors: **Repurchase Intention**, and **Referral Intention**.

Neither the **Satisfaction** or the **Academic Performance** constructs were tested for factorial validity, as they each contained only two measures and therefore were under-identified models, i.e. there was insufficient information from which to attain an estimate, as there were more parameters to be estimated than data points (Byrne, 2010). The CFA results are shown in Table 4.10 below. (See Appendix 7 for further details, and Appendix 8 for convergent and discriminant validity tests.)

Table 4.10: Measurement Model - Goodness of Fit Statistics

Statistic:	χ^2	***Df***	χ^2/df[1]	p	**CFI**[2]	**IFI**[3]	**RMSEA**[4]
English Confidence	3.988	3	1.329	.263	.998	.998	.050
Social System (SR & XCA)	20.543	17	1.208	.247	.990	.990	.039
Cultural System (SCAS)	22.731	18	1.263	.201	.989	.982	.044
Loyalty (Referral & Repurchase)	7.584	8	.948	.475	.994	.995	.069
Academic System (2nd order)	178.201	130	1.371	.003	.949	.940	.053

Goodness-of-fit measures provided for the measurement model indicated reasonable to good levels of acceptability. The following table identifies the recommended levels of acceptance, according to Byrne (2010) and Bagozzi & Yi (2012).

Table 4.11: Levels of Acceptance for Model Fit Indices

[1]CMIN/DF	a better measure for small samples; the higher the *p* value associated with CMIN (chi square), the better the fit:	1 = good fit; < 2 = acceptable; also p value should be significant (> .000)
[2]Comparative Fit Index	an incremental fit index which compares the hypothesised model against a baseline:	0 = poor fit, closer to 1= better fit, > .95 = well-fitting model (for large samples)
[3]Incremental Index of Fit**:**	developed to address issues of parsimony and sample size	>0.9 = acceptable fit
[4]Root Mean Square Error of Approximation	an index of fit, and also corrects for a model's complexity	.08-.10 = mediocre, .05-.08 = satisfactory, <.05 = close fit

As a final word on goodness-of-fit statistics, Byrne (2010) cautions against relying exclusively on these results, as they focus on lack of fit so don't reflect plausibility or guarantee a model's adequacy; instead, "this judgement rests squarely on the shoulders of the researcher" (Byrne 2010 p84). Therefore, it is important for the researcher to consider these statistics in conjunction with theoretical and practical considerations.

The final 45 measurement items that were used in the structural model are listed below including factor loadings for those items tested in the confirmatory factor analysis. (See Appendix 9 for a list of the final item codes used in the full model).

Table 4.12: Final Measurement Items

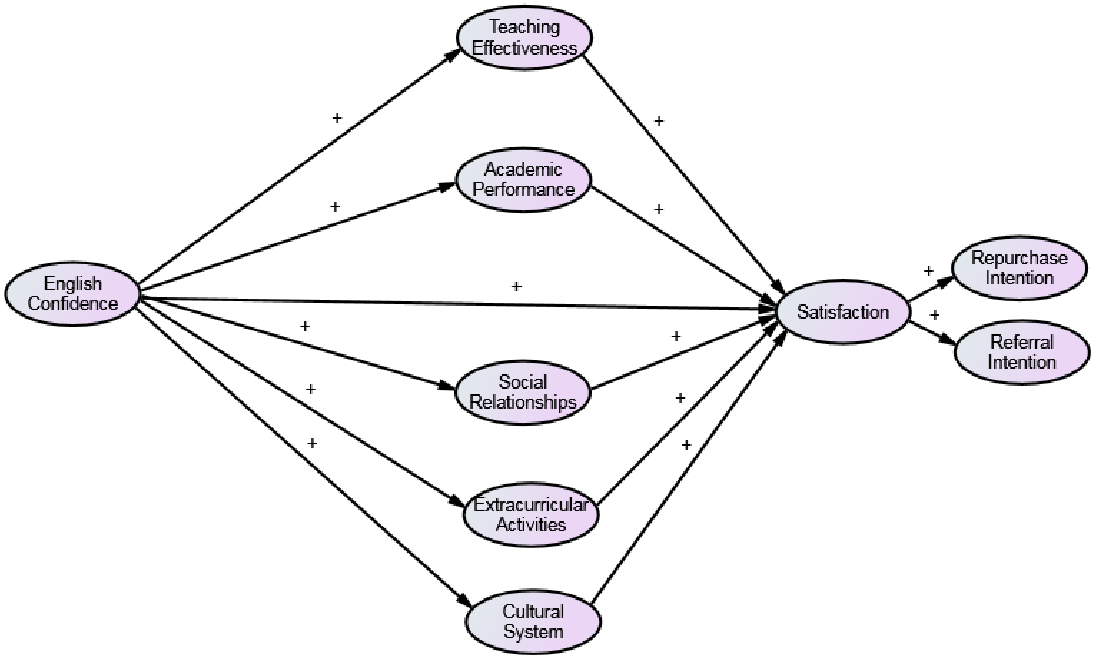
Construct	Item	Factor Loadings
English Confidence	Able to read and understand most texts in English	.74
	Know enough English to speak correctly	.90
	Confident in my ability to write English correctly	.82
	Understand someone speaking English quite well	.86
	Know enough English to use in most situations	.83
Teaching Effectiveness:		
Assessment	Clear marking criteria	.51
	Assessment/marking fair	.61
	Detailed coursework comments	.76
Competences	More confidence presenting ideas	.72
	Confident tackling unfamiliar problems	.74
	Able to contact staff when needed	.57
	Better understanding of people from different cultures	.72
	Improved skills in written communication	.72
	Understanding of how to improve future work	.71
	Developed critical thinking skills	.70
Good teaching	Feedback has come back in time	.46
	Teachers are enthusiastic	.73
	Support was available for extra learning needs	.78

	Teachers very good at explaining things	.73
Learning resources	Library resources good enough for my needs	.67
	Able to access general IT resources	.75
Social relationships	Friendships made at NTU personally satisfying	.85
	Since coming to NTU have had close friendships	.81
	As a result of this course have made new friendships	.67
Extracurricular activities	Social activities and/or clubs	.74
	Sports and leisure facilities available	.65
	Course events with local organisations	.67
	Social events arranged for students	.66
	Opportunities to travel during the year	.57
Cultural experiences	Getting on well with people of different races/ethnicities	.73
	Understanding English rules of behaviour and customs	.70
	Adjusting to daily life in Nottingham	.59
	Dealing with people in positions of power and authority	.75
	Having meaningful conversations with native English	.82
	Understanding differences between British and my culture	.82
Loyalty:		
Repurchase intention	Would still consider NTU as my first choice	.94
	Would return to NTU if interested in further study	.86
	Sense of belonging to NTU	.65
Referral intention	Recommend this University to someone seeking advice	.97
	Encourage friends or family to go to this University	.99
	Say positive things about this University	.80
Satisfaction	Overall I am satisfied with the quality of this course	n/a
	I have had a satisfying experience at NTU	n/a
Academic Performance	Perception of final grade classification	n/a
	Perception of academic performance so far	n/a

Structural Model Results

Using AMOS 22.0, the hypothesised structural model was estimated, as shown in the figure below. There is one independent (exogenous) and eight dependent (endogenous) variables, five of those which were also acting as mediators. The analysis is based on 1274 distinct sample moments and 171 parameters to be estimated, resulting in 1103 degrees of freedom.

Figure 4.1: Hypothesised Structural Model



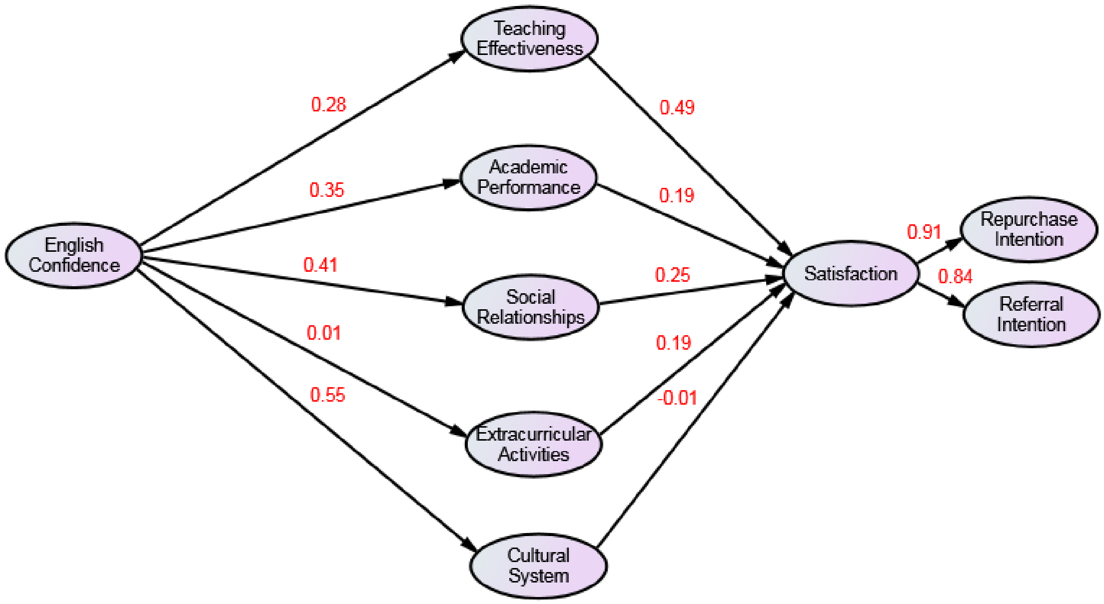
The original hypotheses predicted both direct and indirect effects of the independent variable on institutional outcomes (dependent variables). Firstly, the question of whether there might be a direct relationship between the independent variable **English Confidence** and the dependent variable **Satisfaction** needed to be tested, and so the mediators were all trimmed from the model. Firstly, the goodness-of-fit measures were analysed, which were all at acceptable values, and are shown in Table 4.13 below. Secondly, the standardised regression weight of .227 and critical ratio of 2.498 verified that the **English Confidence → Satisfaction** path was significant to a level of 0.05, indicating a positive relationship between the two constructs. However, the R^2 of .051 means that only 5% of the overall variance associated with **Satisfaction** can be explained by the predictor variable of **English Confidence**. This is important, as it serves to highlight how important the mediator variables might be to this structural model.

Table 4.13: Structural Model without Mediators - Goodness of Fit Statistics

Statistic:	χ^2	*df*	χ^2/df[1]	**CFI**	**IFI**	**RMSEA**
Structural Model 9	110.085	59	1.87	.97	.97	.080

So the next estimation of the structural model above included all variables, and achieved an overall chi square of 1893.819 with 1150 degrees of freedom and a p value less than .05. The significance of the p value indicates that there is a difference between this model and the 'saturated' or best model fit, which is not normally a satisfactory result. As mentioned above, the chi square value is not particularly helpful in determining model fit, as it does not give much guidance in the fitness of the model when one has a smaller sample size. Instead, the normed chi-square (χ^2/df) was examined, which showed a value of 1.647 for the structural model. This is within the levels of 1.0 to 2.0 recommended by Hair et al (1998), suggesting the model fit is acceptable. In addition, the RMSEA value of .069 was within the satisfactory range (between .05 and .08). However, the CFI of .835 and IFI of .838 were less satisfactory. In addition, there were four non-significant paths: **English Confidence→Satisfaction** (–0.09); **English Confidence→Extracurricular Activities** (0.03), **Cultural System→Satisfaction** (0.2) and **Extracurricular Activities→Satisfaction** (0.17). Modification indices (MIs) for the regression weights were also examined, which showed a maximum of 35.524 associated with the path **Teaching Effectiveness→ Social Relationships** (i.e. the chi square would fall by at least that much if this path was added). As **Teaching Effectiveness** does relate to relationships between teacher and student, and student to student, this would be a reasonable explanation for this path and it was added to the model, whilst the insignificant path **English Confidence → Satisfaction** was trimmed. This was identified as Model 2 and analysed again. Unfortunately, this led to a number of additional non-significant paths. In order to obtain a more parsimonious model, the number of parameters was also considered; as this was quite a complex model for the size of the dataset, it was decided to review the measures to see if there were any that could be removed without affecting the overall constructs. Four measures were ultimately removed: one from **Social Relationships**, two from the **Cultural System**, and one from **Extracurricular Activities**, each time re-estimating the model.

Figure 4.2: Final Structural Model with Regression Estimates



Eventually, the best result was achieved with Model 8, shown in Figure 4.2 above: a chi square value of 1411.58 with 922 degrees of freedom and a *p* value less than .05, the significance of the p value indicates that there is a difference between this model and the 'saturated' or best model fit, which is not normally a satisfactory result. (The full model with measures can be found in Appendix 10). Again, this is expected because of the small sample size and as it does not give much guidance in the fitness of the model, a better indicator is the normed chi-square (χ^2/df) (see Table 4.14 below). The CFI and IFI measures are reasonably close to the desired level of .90, the RMSEA is within the satisfactory range, and when considered along with the χ^2/df, these indices suggest an acceptable model fit.

Table 4.14: Final Structural Model - Goodness of Fit Statistics

Statistic:	χ^2	***df***	χ^2/df^1	**CFI**	**IFI**	**RMSEA**
Structural Model 8	1411.58	922	1.53	.88	.88	.063

Table 4.15 displays the critical ratios (CR) and standardised regression weights for the final structural model. The emboldened paths all achieved a CR >1.96, which is an indication of significance for those paths at the .05 level (Byrne, 2010). Similarly, the standardised regression weights highlight that an increase in the predictor will lead to

a subsequent increase in the outcome. The two insignificant paths were **English Confidence→Extracurricular Activities** (.011), and **Cultural System→ Satisfaction** (-.014). Ultimately, it was decided not to remove these paths as the variables concerned did show significant relationships to other variables.

Table 4.15: Critical Ratios and Standardised Regression Weights

Proposed model relations	Abbreviation	C.R.	Standardised Regression Weights
English confidence → Academic Performance	**EC→AP**	**3.010**	**.354**
English confidence → Teaching Effectiveness	**EC→TLE**	**2.665**	**.283**
English confidence → Extracurricular Activities	EC→XA	.115	.011
English confidence → Cultural System	**EC→CS**	**5.833**	**.547**
English confidence → Social Relationships	**EC→SR**	**4.443**	**.419**
Social Relationships → Satisfaction	**SR→SAT**	**2.925**	**.251**
Extracurricular Activities → Satisfaction	**XA→SAT**	**2.175**	**.186**
Teaching Effectiveness→ Satisfaction	**TLE→SAT**	**3.967**	**.492**
Academic Performance → Satisfaction	**AP→SAT**	**1.974**	**.192**
Cultural System → Satisfaction	CS→SAT	-.168	-.014
Satisfaction → Referral Intention	**SAT→REF**	**11.664**	**.838**
Satisfaction → Repurchase Intention	**SAT→REP**	**8.088**	**.908**

The Squared Multiple Corrrelations (SMC) values, also known as R^2, were then examined to assess the variances explained by the model. SMC is the amount of variance in one variable which is shared by another (Field, 2013). As shown in the table below, one value explained none of the variance to **Satisfaction**, i.e. **Extracurricular Activities**. There were also fairly low R^2 values associated with **Teaching Effectiveness** and **Academic Performance**, but almost one fifth of the variance associated with **Social Relationships**, and one third of the variance associated with the **Cultural System**, were accounted for by **English Confidence**. In addition, the mediator variables in this model can explain 43.5% of the variance of the **Satisfaction** construct. These values are not particularly high, suggesting that other antecedents or influential variables affect the remaining 56.5% of **Satisfaction**. As this model deals with human attitudes and behaviours, there will always be a number of latent variables which are unknown and as such, cannot be measured (Lam et al, 2004) Finally, the constructs of **Repurchase Intention** and **Referral Intention** explain 82.5% and 70.2% of the variation in **Satisfaction** respectively, which indicates that the model has accounted for most of the variation in the **Satisfaction** construct.

Table 4.16: Squared Multiple Correlations (R^2)

Construct	R^2 Estimate
Repurchase Intention	.825
Referral Intention	.702
Satisfaction	.435
Cultural System	.300
Social Relationships	.168
Academic Performance	.126
Teaching Effectiveness	.080
Extracurricular Activities	.000

Importantly, the final structural model tested identified no significant relationship between the independent variable, **English Confidence**, and the dependent variable, **Satisfaction**. This was expected however, as it was originally conceptualised as a model which took into account the complexities of causal relationships, i.e. mediators were identified from previous research which could help to clarify the relationship between English confidence and institutional outcomes.

Therefore, the partially mediated model, as shown in Figure 4.1, was not confirmed. On the other hand, it can be confirmed that the structural model shown in Figure 4.2 above represents a fully mediated model (Weston and Gore, 2006). In other words, there is a significant direct effect of **English Confidence** on **Satisfaction** *only* when the mediators are absent; when the mediators are present there is no direct effect, and only indirect effects are significant.

Testing for Differences

The next stage in SEM is to test for structural invariance; i.e. whether the structural model is equivalent across different groups (Byrne, 2010). It is a test to see how different the relationships in a model might be between particular categorical variables acting as moderators. This is, in effect, a test for null hypothesis; if a null hypothesis is rejected, it would then be necessary to identify the source of the non-equivalence through the testing of each path in the structural model. Five hypotheses related to multi-group moderation were advanced in this research paper, and will be considered in this stage of the path analysis. Following Byrne's (2010) guidelines, the first step is to establish a configural model for each categorical group, which allows for the testing of two or more groups simultaneously. Insignificant paths are trimmed for both groups being tested; each path is removed one at a time until no significant paths remain. This determines the unconstrained, or baseline, model from which to compare against all other invariance tests for that group. This is then compared with the structural model which has been constrained to be equal - i.e. all of the structural paths are constrained. The differences in chi square values are then compared between the baseline and constrained models, and if the differences are significant, it is an indication that some difference exists between groups. When this is found to be the case, the final step is to conduct a path-by-path analysis in order to determine where the differences lie. Using chi-square thresholds at the 90%, 95% and 99% confidence levels to test significance (Gaskin, 2012), a chi-square difference which is higher than the threshold indicates variance for that path.

The categorical variables to be tested for multi-group moderation were pre-sessional attendance, prior business or management degree, total length of residence in English-speaking countries, and cultural groups. Before conducting these analyses, however, some of the data needed to be manipulated into a form that could be used in AMOS. Whilst cultures had initially been grouped into regions for easier descriptive analysis, resulting in seven categories, this needed to be further collapsed into two categories in order to facilitate comparative analysis. In addition, the continuous variable, length of residence, was transformed into a category variable. Both of these changes are discussed in more detail below.

Length of Residence

H3a: The length of time residing in an English-speaking country moderates the positive effect of English language proficiency on social and cultural adjustment, such that the longer the student resides in an English-speaking country the more positive the effect.

Before testing for equivalence, the mean of the length of time respondents had resided in an English speaking country before the start of their Masters was calculated to determine the point at which to recode into two balanced variables: 63 had answered as residing between 0 and 12 months, and 40 respondents had resided for over 12 months. Because this question had not been applicable to native English-speakers, it was necessary to adjust the data before continuing with analysis; an additional 32 respondents were coded to the more than 12 months category which resulted in a 47:53 ratio respectively. The configural model was trimmed because of the two insignificant paths of **English Confidence→Extracurricular Activities** and **Cultural System →Satisfaction**, and when compared with the constrained model, showed a chi-square difference of 11.47 with 10 df. This was not significant and therefore the model was invariant at the structural level. Additionally, when each path was constrained individually, there was no significant chi-square difference found at the 95% confidence level between **English Confidence** and either **Social Relationships** or **Cultural System**. Therefore the null hypothesis could not be rejected for this particular dataset; there was no evidence that length of time residing in an English country affected the relationship between English Confidence and either social or cultural adaptation.

Pre-Sessional English for Academic Purposes (PEAP)

H3b: Completion of a pre-sessional course moderates the positive effect of English language proficiency on academic and social adjustment, such that the effect is stronger for successful completion of a pre-sessional course.

Invariance testing was then conducted on Hypothesis 3b. The survey had asked respondents firstly whether they had attended a PEAP course, and secondly whether they had attended a pre-sessional Masters course (e.g. NTIC). Firstly, an invariance test was run for the PEAP group. The baseline model was compared with the constrained structural model, and yielded a $\chi 2$ difference of 40.002, with 9 df. This revealed that there is a difference at the structural model level. Constraining each path in turn to determine where the differences lay within the model provided a number of significant results, which are shown in the table below.

Table 4.17: PEAP Non-Invariant Regression Weights

	$\Delta\chi 2$ *	**Δdf ****	**confidence level**	**standardised regression weight**
Teaching Effectiveness→ Satisfaction	4.087	1	95%	yes: .442 no: .512
English Confidence → Social Relationships	6.037	1	95%	yes: .472 no: .379
English Confidence → Extracurricular Activities	5.569	1	95%	yes: .010 no: .012
English Confidence → Academic Performance	6.001	1	95%	yes: .182 no: .068
English Confidence → Teaching Effectiveness	6.562	1	99%	yes: .494 no: .268
Satisfaction → Referral Intention	6.654	1	99%	yes: .844 no: .950

***** $\Delta\chi 2$ = *chi square difference between constrained and unconstrained models*
** Δdf = *difference in the degrees of freedom between constrained and unconstrained models*

The results in the table above clearly show that pre-sessional attendance moderates the relationships for the identified paths above, i.e. the differences between those who attended PEAP courses before their Masters programme and those did not. As shown in the table, those who attended a PEAP course had a stronger positive relationship between **English Confidence** and the factors of **Academic Performance**, **Social Relationships** and **Teaching Effectiveness** than those who did not attend PEAP.

As a key focus of EAP courses is to develop the international student's English as well as academic skills, it is a reassuring result, and supports the literature (Storch and Tapper, 2009; Dooey; 2010; Terraschke and Wahid, 2011). On the other hand, a slightly weaker relationship is found for the path **English Confidence→Extracurricular Activities** for those who attended PEAP compared to those who did not. Students will join clubs and activities to help them develop social relationships, but according to focus group evidence, previous PEAP students have developed a good social network during the time on their PEAP course; it may be that these students felt less of a need to join new extracurricular activities during their Masters year. In addition, the path **Satisfaction→Referral Intention** was also moderated by PEAP Attendance and again, respondents who had attended a pre-sessional English course had a weaker positive relationship between their course satisfaction and the intention to recommend than those who did not attend. This is a reversal to what was expected; a likely reason may be down to the composition of the cultural groups, which may have skewed the results. In an examination of the data, of the 50 international respondents who attended a PEAP course, the majority (70%) were from East and Southeast (E&SE) Asia. Of the 53 who did not attend a PEAP course, only 30% were from E&SE Asia. Table 4.18 below highlights the differences in responses to question 14B (*how likely is it that you would encourage friends or family to go to this University?*) between the E&SE Asian group of respondents, and the other international student groups. This clearly shows that E&SE Asians feel less willing to recommend NTU than those from other international regions; in particular, other international students were two thirds more likely to recommend NTU (as indicated by the ratings between 8 and 10) than E&SE Asians. The lower evaluation may have been affected by higher expectations before commencing their course, compared to the reality of their experiences. Perhaps the many challenges they faced and barriers they had to overcome based on greater cultural distance reduced their desire to recommend a similar experience to their peers. Or, although not evident during the piloting stage, this result might be explained by the 'central tendency' effect of Asians and others from collectivist societies who tend to avoid ratings at the extreme end of the scales (Chen et al, 1995; Smith and Fischer, 2008; Harzing et al, 2009). It may also be due to the different interpretation of the question. In one of the focus groups for this research, for example, one student from Vietnam explained that she would only recommend her Masters course to a friend or family member if she felt that they wanted a more academic programme. She applied this question very specifically to the context of her friends and family, rather than seeing it as a more general question that sought to explore a person's willingness to refer, on the understanding that another may be interested in a similar course. So it may be that E&SE Asian students interpreted this question somewhat differently than did other students. Of course, another explanation could be that they may just not have the same propensity to exhibit advocacy behaviour than other cultural groups might do. However, these are all speculations as there is a lack of prior empirical evidence which provide any explanation for these findings.

Table 4.18: Differences in Responses to Q14B

Rating	E & SE Asians		Other Internationals	
	No.	Percentage	No.	Percentage
8, 9 or 10	14	27%	35	42%
5, 6 or 7	32	63%	29	33%
1, 2, 3 or 4	5	10%	20	25%
TOTAL	51	100%	84	100%

Pre-Sessional Attendance (PEAP and NTIC)

As there were only 17 respondents who confirmed their attendance on the pre-Masters business programme (NTIC), the size of this group was too small to be able to run invariance tests. Therefore, variables were recoded such that respondents who attended either one, or both, NTIC and PEAP courses were combined into one group, and those who attended neither course were in a second group, so that another invariance test could be run. There were a number of insignificant paths which were removed before the final baseline model was determined; **Cultural System→ Satisfaction** and **Academic Performance→Satisfaction**. In addition, the paths to and from **Extracurricular Activities** were removed and thus the entire factor. Again, a comparison of the baseline model, with a chi-square value of 2620.12 with 1530 degrees of freedom, to the constrained model, identified significant differences at the model level ($\Delta\chi 2$ = 21.0, 8 df), indicating that the groups were moderated by pre-sessional attendance. The significant results for individually constrained paths are in the table below.

Table 4.19: Pre-Sessional Non-Invariant Regression Weights

	$\Delta\chi 2$	Δdf	confidence level	standardised regression weight
English Confidence→Social Relationships	7.426	1	99%	yes: .462 no: .440
English Confidence→Academic Performance	3.904	1	95%	yes: .214 no: .099
Satisfaction→ Repurchase Intention	5.038	1	95%	yes: .927 no: .937

These results suggest that attendance of any pre-sessional course has a positive effect on the relationship between language confidence and both peer group relationships and academic performance. This supports previous research that those international students who exhibit high levels of English language confidence will also find it easier to adapt to their social environment (Masgoret and Ward, 2006; Zhang and Goodson, 2011). Perhaps more significantly, higher confidence in using English will positively influence international students' adjustment to their academic environment, as indicated by their more positive perception of academic achievement. Again, there is some support in the literature for this (Dunn, 2006; Terraschke and Wahid, 2011; Yu, 2013). Similar to the path analysis on PEAP groups, the influence on the path between **Satisfaction** to **Repurchase Intention** was stronger for those who did not attend any pre-sessional course.

Previous Business Education

H3c: Completion of a first degree in business or management moderates the positive effect of English language proficiency on academic adjustment, such that the effect is stronger for prior completion of a business or management degree

The invariance test for this group did not converge, as AMOS could not fit the model. The most likely reason for this was due to both a small sample size and positive skewness issues, indicating a non-normal distribution, which was supported by the significant result of the Kolmogorov-Smirnov statistic indicating violation of the assumption of normality (p=.000). An examination of the data highlighted more than twice as many respondents who completed a first degree in business or management (n=95) compared to those who did not (n=40). Therefore, the null hypothesis could not be rejected.

Cultural Groups

H3d: Cultural distance moderates the positive effect of English language proficiency on academic, social and cultural adjustment, such that the effect is more negative for greater cultural distance.

To test for equivalence between cultural groups as expressed in the hypothesis above, it was necessary initially to recode the seven original cultural groups into fewer groupings. Initially, three different cultural groups (UK, Asians, and other International Students) were created, but AMOS software did not converge. One of the issues appeared to be the size differential between each group, i.e. comparing a group of UK respondents (n=20) with two larger groups did not result in convergence. Lewis' (2006) model of cultural dimensions (linear, reactive, and multi-active) was then used in an attempt to identify three more comparable sized groups, but this also did not converge. It was determined that the sample size was too small to allow for comparison of more than two groups, and so two cultural groups were created, based on Hofstede's (1980) cultural dimension matrix, which combined Individualism and Power Distance. Respondents from Individualistic cultures with low to medium Power Distance were in one category (n=61), and those from Collectivist cultures with medium to high Power Distance (n=74) were in the second category, thus providing groups with the largest cultural distance from each other.

The unconstrained model was determined after trimming the insignificant paths from both groups: because both the **English Confidence → Extracurricular Activities** and **Extracurricular Activities → Satisfaction** paths showed insignificance, the entire mediator variable was removed. In addition, the **Academic Performance → Satisfaction** path and **Cultural System → Satisfaction** path were removed. This resulted in a configural model with a chi-square value of 2433.215 and 1450 degrees of freedom; when compared with the constrained model (2464.681/1458), the difference indicated that the groups were significantly different at the model level. Each path was subsequently tested and the significant findings are provided in the table below.

Table 4.20: Cultural Distance Groups Non-Invariant Regression Weights

	$\Delta\chi 2$	Δdf	confidence level	standardised regression weight
English Confidence→Teaching Effectiveness	**17.06**	**1**	**99%**	**collect/hi PD: .195** **indiv/lo PD: .045**
English Confidence → Social Relationships	**3.549**	**1**	**90%**	**collect/hi PD: .436** **indiv/lo PD: .326**
Teaching Effectiveness→ Satisfaction	7.07	1	99%	collect/hi PD: .362 indiv/lo PD: .597
Satisfaction → Referral Intention	4.73	1	95%	collect/hi PD: .782 indiv/lo PD: .949

English Confidence was found to have a stronger influence on both **Teaching Effectiveness** and **Social Relationships** for respondents from a larger cultural distance (i.e. collective and high power distance), but no significant difference was found for the **English Confidence → Cultural System** path. Because the hypothesis had posited a less positive effect on the relationships between English confidence and academic, social and cultural adaptation, and the results demonstrated a more positive effect (as represented by the constructs of **Teaching Effectiveness** and **Social Relationships**) the hypothesis was not supported. Another interesting finding, which was not hypothesised, was the group difference between **Teaching Effectiveness→ Satisfaction**, indicating that there was a less positive influence on **Satisfaction** by those from the larger cultural distance group.

CHAPTER 5: DISCUSSION OF RESULTS

Structural modelling of English language effects on international student satisfaction and loyalty has produced an acceptable model, and as such provides new empirical evidence of the importance of language competence on institutional outcomes, a relationship not previously tested using this approach. Although this model offers one interpretation of how the dimensions interrelate, and allows for theorising as to the strength and importance of those relationships, this is not to say that this is the definitive solution to understanding the relationships between English language proficiency and outcomes. In the words of Gardner et al (1997, p356), “The intent ... is not to argue for [the model’s] superiority, but simply to demonstrate that it is meaningful for interpreting the relationships among the variables and for postulating how they relate to L2 achievement”. In relation to this model, the intention was not so much L2 achievement, but L2 outcomes, but the sentiment is precisely the same. This model provides one particular view of the interrelationships between the constructs researched in this study, and as such, allows the opportunity to explore these connected and complementary relational paths to gain better understanding of the NNES students’, and in fact any postgraduate students’, experience and resultant outcomes. Each of these interrelationships will be discussed in the subsequent sections.

5.1 Language Confidence as a Predictor of Satisfaction and Loyalty

One of the main aims of this study was to identify the extent to which language proficiency affects the overall satisfaction of an ISs’ course experience, and the subsequent outcomes of loyalty, referral intention, and willingness to return. This was expressed as two hypotheses:

H1a: The higher an international student’s (IS’s) English language proficiency, as measured by perceived English language proficiency and communication confidence, the higher the overall satisfaction of course experience.

H1b: The higher an IS’s English language proficiency, the higher the loyalty, as mediated by overall satisfaction.

Hypothesis 1a: English Language Proficiency to Satisfaction

International students’ perceived English language proficiency is shown to be an important antecedent to satisfaction, both directly, and indirectly through students’ perceptions of academic performance, teaching effectiveness, and social relationships. The finding of **English Confidence** as a significant predictor of

Satisfaction through its relationship with other factors does corroborate Perrucci and Hu's (1995) structural model, as well as the four studies uncovered by Zhang and Goodson (2011). However, this direct influence is small (R^2 = .051), meaning that there are a number of other variables which more strongly and directly influence satisfaction. All of the studies identified above originated in the USA so this is the first empirical study which provides a British perspective. Although H1a was a hypothesis with very limited empirical support, these results have also reinforced key findings from Document 4. For example, answers to three items in Document 4's survey showed that the majority of respondents believed their levels of English proficiency to have affected their course enjoyment, and ANOVA results reported therein indicated that there was a large effect of IELTS scores on satisfaction of course experience, with less than 5% probability of this difference being due to chance. In summary, ISs who feel confident about their English proficiency also exhibit higher satisfaction towards their overall experience; those ISs who are less confident about their English proficiency show lower course satisfaction. Thus, Hypothesis H1a is supported.

Hypothesis 1b: English Language Proficiency to Loyalty

Similarly, structural analysis related to H1b also confirmed that student loyalty intentions depend directly on their satisfaction, and that **English Confidence** therefore has an indirect effect on customer loyalty through either **Teaching Effectiveness**, perceived **Academic Performance**, or **Social Relationships**, and then **Satisfaction**. The strongest of these paths was **English Confidence → Social Relationships → Satisfaction → Repurchase Intention**, which implies that loyalty is formed in part by the students' affective responses or commitment (Lam et al, 2004) to their social experiences, supporting Cabrera et al's (1993) and Hennig-Thurau et al's (2001) models. In other words, a student with high English language confidence also is effective in social adaptation, which in turn shows a correlation with higher satisfaction levels and feelings of belonging to the institution. Moreover, the paths from **English Confidence→ Teaching Effectiveness→ Satisfaction→ Repurchase Intention** and **English Confidence→ Teaching Effectiveness→ Satisfaction→ Referral Intention** also displayed strong relationships, suggesting that English language confidence plays a role in students' cognitive evaluation of learning and learning effectiveness and satisfaction, and thus to the two loyalty dimensions. The results are consistent with studies of satisfaction as an antecedent to customer loyalty (Lam et al, 2004) and as a mediator between student's perceived service quality and loyalty (Shemwell et al 1998; Alves and Raposo, 2007; Helgesen and Nesset, 2007; Rojas-Mendez, 2009).

On the other hand, there was a much stronger direct effect on the path from **Satisfaction** to the two dimensions of loyalty, **Referral Intention** and **Repurchase Intention**; i.e. they are positively related to, and can be explained primarily by the latent variable of **Satisfaction**. The results are consistent with previous findings that students' loyalty is directly affected by their satisfaction (e.g. Cronin and Taylor, 1992). This implies that the higher the students' satisfaction, the stronger their sense of belonging or emotional commitment to the University, the higher their willingness to repurchase given the right circumstances, and the more they are willing to engage in positive referral behaviour. These results also highlighted the full mediating role of satisfaction in the influence of academic and social experiences on customer loyalty. In particular, the paths **Teaching Effectiveness→Satisfaction→Referral Intention** and **Teaching Effectiveness→Satisfaction→Repurchase Intention** support prior research (e.g. Lam et al, 2004; Helgesen and Nesset, 2007; Kim, 2011). Overall, satisfaction ensues from multiple factors (Abdullah, 2006), but this model identifies **Teaching Effectiveness** and **Social Relationships** as the two most important factors affecting student satisfaction and loyalty outcomes; thus, Hypothesis 1b is supported.

5.2 Mediators between English language confidence and Satisfaction

It was posited that ISs with higher levels of English language confidence will achieve greater adaptation to the various systems within which they interact, resulting in a higher level of satisfaction with their course experience. This broad position was separated into three hypotheses:

H2a: Academic adjustment, as measured both by perception of academic performance and teaching effectiveness, mediates the positive effects of English language proficiency on overall satisfaction

H2b: Social adjustment, as measured by peer group interaction and extracurricular activities, mediates the positive effects of English language proficiency on overall satisfaction.

H2c: Cultural adjustment, as measured by socio-cultural adaptation, mediates the positive effects of English language proficiency on overall satisfaction.

Each hypothesis is considered in more detail, below.

Hypothesis 2a: Academic Adaptation as Mediator

Results of this study confirm the hypothesis that adjustment to the academic culture is an important mediator between English language proficiency and overall satisfaction. Firstly, there is a direct positive relationship between English language confidence and the academic and social mediator variables, followed by a direct relationship between the academic and social mediator variables and satisfaction.

The path from **English Confidence → Academic Performance** supports the positive relationships previously found between students' proficiency test scores and academic performance (e.g. Feast, 2002; Woodrow, 2006; Cho and Bridgman, 2012) and specifically, their correlation with listening and reading skills (Yen and Kuzma, 2009) and writing skills (Andrade, 2006; Yen and Kuzma, 2009). Structural analysis also indicated a direct path from English confidence to the latent variable of **Teaching Effectiveness**, with its related factors of competences, good teaching, learning resources, and assessments. This result confirmed the wealth of previous research that identifies the ability to communicate effectively in English as having a strong effect on academic adjustment and success (e.g. Liu, 2009; Zhai 2002, Andrade, 2006; Brown, 2008a, 2008b; Li et al, 2010; Lin, 2002, Mak, 2011). Not only does lower language confidence increase anxiety and unwillingness to communicate in the classroom (Horwitz et al, 1986; Holmes, 2004; Chuah, 2010), but it would also affect the interaction with academic staff, the ability to understand assessment instructions and feedback, the ability to use library resources and the development of competences.

That academic factors have a direct relationship to satisfaction is again in accordance with the majority of findings. For example, the quality of the teaching experience has been found to be highly correlated to satisfaction (e.g. Douglas et al, 2008; Clemes et al, 2008) although these results are in contrast with Athiyaman (1997) and Russell (2005) who identified service quality as a consequence of satisfaction. Interestingly, most satisfaction studies do not incorporate measures of overall grade performance as a predictor of satisfaction, although do include achievement of professional and personal skills. Perhaps the relationship is taken for granted; as Knox et al (1992, p. 316) commented, "it would be shocking if college grades were unrelated to academic satisfaction". Nevertheless, a few studies included academic achievement as a predictor variable, but with inconsistent results; the results from this study supports the findings of academic performance as an antecedent (e.g. Knox et al, 1992) rather than a consequence (Thomas and Galambos, 2004) of satisfaction. Also important to note was that the path **Academic Performance → Satisfaction** is much weaker than the path **Teaching Effectiveness→ Satisfaction**. This may be due to students being more likely to view poor results as a reflection of their own performance rather than any external factors (Wilkins et al, 2015). In addition, international students who struggle with their English language competence may not have high expectations of the results they can achieve after they experience language and academic shock at the beginning of their study; thus the grade they achieve may not be as important to them as successful completion.

Hypothesis 2b: Social Adaptation as Mediator

Results provided evidence of a strong indirect relationship between **English Confidence** and **Satisfaction** through the latent variable **Social Relationships**. This adds to the evidence from previous literature which identified language proficiency as important antecedent to sociocultural adaptation, (e.g. Ippolito, 2007; Hellstén & Prescott, 2004; Gu, 2005; Sumer et al, 2008; Brown, 2008a; Brown, 2008b; Bash, 2009; Smith and Khawaja, 2011; Yuan, 2011). Results from these published studies, as well as primary research conducted for Document 3 of this doctorate, established that students are concerned about their ability to communicate effectively in English; those students who were more able and willing to communicate also found it easier to develop social relationships. Although there is much evidence to suggest that a lower level of English competence affects socio-cultural adaptation (e.g. Holmes, 2004), and friendships with host-nationals would increase satisfaction (Spencer-Oatey and Xiong, 2006, Copland and Garton, 2011) it is also important to note that primary research identified ISs' development of friendships as an important influence on their satisfaction. So, even though some E&SE Asian students reported lower English proficiency, which can hinder socio-cultural adaptation with host-nationals, their ability to develop relationships with co-nationals as well as other international students has a positive effect on satisfaction, hence the overall result is mainly positive (Myles and Cheng, 2003; Holmes, 2004).

However, the path **English Confidence→Extracurricular Activities** was not significant and the reasons for this could be that many of the extracurricular activities can be attended without much requirement for verbal communication, e.g. sports activities like gym membership and aerobic classes, and course events such as guest lectures. Other extracurricular activities, such as travelling or attending social events, are most likely experienced with co-national friends and classmates so communication could be, at least partly, in the student's native language. However, distinction between types of activity was not investigated, and may be worth further exploration in future research, to determine whether students value particular activities over others.

Hypothesis 2c: Cultural Adaptation as Mediator

Results indicate a significant direct path from **English Confidence→Cultural System**, which supports previous research that language skills are a required element in developing intercultural skills (e.g. Cortazzi and Jin, 1997) and are necessary to understand cultural assumptions embedded in the language (Bash, 2009). Missing, however, is a significant path from **Cultural System→Satisfaction**, hence the author's hypothesis 2c could not be supported. Although researchers (e.g. Lin, 2002) recognised cultural knowledge as a challenge that international students identified, and expressed concern that a lack of working knowledge of UK culture can increase ISs' feelings of frustration and hinder their overall experience on business courses (Bamford, 2008), there has been no previously identified empirical evidence confirming the links between cultural adaptation and satisfaction with course experience. In this study too, it was not shown as a significant influence on satisfaction. Perhaps this may be understood when one considers that students who struggle to communicate in the wider community may limit their interactions to their University community whenever possible, and avoid situations where they would need to communicate in English, (Cheng and Erben, 2012; Yuan, 2011). In support of this, primary research from Document 3 identified that many Chinese students avoided socialising in the city centre, instead preferring either to invite each other to their homes, or to choose Chinese restaurants and social establishments which catered more specifically to their language and cultural needs. This could extend to shopping, as little communication is needed in most buying situations, and indeed many students may now be comfortable purchasing goods online. Alternatively, it may be as Myles and Cheng (2003) believed, that ISs are able to learn enough about the host culture to function through the social network they develop once they arrive. Another reason may be that students do not expect to gain cultural knowledge in the short time of their sojourn, so feel a sense of achievement in overcoming the obstacles presented by living in a foreign land. Ultimately, this study has not identified cultural adaptation as a necessary pre-requisite for students' satisfaction with their overall experience, which is good news for HEIs. In order to achieve a successful course outcome, it may be that adapting to the academic and social environment are the most influential mechanisms to engender satisfaction.

In summary, the conceptual model supports the quantitative studies on the effects of language proficiency on academic achievement (Kerstjens and Nery, 2000; Andrade, 2006; Woodrow, 2006; Yen and Kuzma, 2009; Zhang and Goodson, 2011) and sociocultural adjustment (Noels et al, 1996; Ward and Kennedy, 1999; Masgoret and Ward, 2006; Zhang and Goodson, 2011).

Overall, these results have highlighted the importance of both academic and social experiences as mediators between English proficiency and international student satisfaction. Evidence has been provided to show that the perception of teaching effectiveness, academic performance and peer group interactions fully and positively mediate the relationship between English confidence and satisfaction. This is interpreted as meaning that even when a student has a high level of confidence in their English proficiency, if peer relationships are not developed, the student will not necessarily be as satisfied with his/her course experience. Similarly, English confidence leads to a more satisfied experience, as long as learning and teaching experiences and academic performance is also perceived to be satisfactory. In fact, **Teaching Effectiveness** was the strongest predictor of **Satisfaction**, followed by **Social Relationships**, which supports previously discussed empirical evidence. **Academic Performance**, on the other hand, had a much weaker relationship to **Satisfaction**. In addition, there was no evidence that cultural adaptation mediated the relationship between English confidence and **Satisfaction**.

5.3 Moderating influences on the Path Relationships

It was hypothesised that length of residence, pre-sessional course completion, previous degree subject and cultural background are important variables which moderate the strength of the relationship between English language ability and adaptation to the academic, social and cultural systems. The next set of hypotheses are, therefore:

H3a: The length of time residing in an English-speaking country moderates the positive effect of English language proficiency on social and cultural adjustment, such that the longer the student resides in an English-speaking country the more positive the effect.

H3b: Completion of a pre-sessional course moderates the positive effect of English language proficiency on academic and social adjustment, such that the effect is stronger for successful completion of a pre-sessional course.

H3c: Completion of a first degree in business or management moderates the positive effect of English language proficiency on academic adjustment, such that the effect is stronger for prior completion of a business or management degree.

H3d: Cultural distance moderates the positive effect of English language proficiency on academic, social and cultural adjustment, such that the effect is more negative for greater cultural distance.

Table 5.1 below summarises the significant moderation effects on each of the path relationships in the structural model.

Table 5.1: Moderation Effects on Pre-sessional Attendance and Cultural Distance

	Completion of EAP course			Completion of Pre-sessional course			Cultural Distance		
Relational paths	Yes	No	Δχ2	Yes	No	Δχ2	High	Low	Δχ2
English Confidence → Academic Performance	.182	.068	6.001***	.214	.099	3.904**	-	-	-
English confidence → Teaching Effectiveness	.494	.268	6.562***	-	-	-	.195	.045	17.06***
English Confidence → Extracurricular Activities	.010	.012	5.569**	-	-	-	-	-	-
English Confidence → Social Relationships	.472	.379	6.037**	.462	.440	7.426***	.436	.326	3.549*
Teaching Effectiveness→ Satisfaction	.442	.512	4.087**	-	-	-	.362	.597	7.07***
Satisfaction → Referral Intention	.844	.950	6.654***	-	-	-	.782	.949	4.73**
Satisfaction → Repurchase Intention	-	-	-	.927	.937	5.038**	-	-	-

*p<.10; **p<.05; ***p<.01

Hypothesis 3a: Length of Residence

No support was found for the effect of length of residence as a moderator variable on either social or cultural adaptation, although this was found to be a predictive factor in a number of prior studies (e.g. Ward and Kennedy, 1994; Hechanova-Alampay et. al, 2002; Yang et al, 2006; Sovic, 2008). The lack of a significant difference does not mean that length of residence does not affect adaptation, but rather that there may be other information to consider that was not taken into account (Bagozzi and Yi, 2012). Or it may be that it was not significant because there are now plenty of support mechanisms in place to help international students adjust quickly after arrival at NTU (e.g. NTUs' Chinese society, Global Lounge, International Student Welcome Week) with such concerns as accommodation, orientation to Nottingham and banking. Alternatively, only one-third of the NNES respondents had resided in an English-speaking country for less than three months; it may be, therefore, that for the majority of students, the length of time needed to adjust occurred prior to the start of their Masters programme. This seems to be supported by the results from the cultural experience (Q12) scale. This showed a mean score of 4, which relates to 'slight difficulty', meaning that half of the respondents did not report any issues in adjusting to the English culture during the year on their Masters programme. On the other hand, it may have been down to methodological issues. Because both native and non-native English speakers completed the questionnaire, the majority of respondents (53%) had resided in an English-speaking country for more than 12 months which might have affected the analysis. In addition, there were 119 respondents on Q12, compared to 103 who identified themselves as NNES; 16 respondents were native English speakers and this may also have had a bearing on the results, although this cannot be determined. In any event, length of residence did not have an effect on the pathways in this model to any significance.

Hypothesis 3b: Pre-Sessional Course Completion

The main focus of EAP courses is to develop the international student's English proficiency in an academic environment (Banerjee and Wall, 2006) and by designing activities in an academic context, such as writing and verbal presentation tasks, their academic study skills and performance should also be developed. In addition, findings from the author's previous research with East Asian students identified that peer networks were developed from their PEAP course, primarily with co-nationals, and that those peer networks would continue to develop throughout their University study. Although part of the wider University community, ISs just arriving in their host country have an opportunity to build supportive relationships and gain knowledge of the University's academic requirements in a smaller and less intimidating environment than they experience once they join their master's course. Therefore, it is reassuring that the results support this author's research and previously published studies that an EAP course strengthens the relationship between English confidence (Dooey, 2010) and respondents' ability in coping with the demands of their course (Storch and Tapper, 2009; Terraschke and Wahid, 2011), and provides emotional and practical support through friendships (Myles and Cheng, 2003; Copland and Garton, 2011) which was also seen as important to their overall experience (Spencer-Oatey and Xiong, 2006). The same results were found when the NTIC and PEAP attendees were combined in one group and compared with those who had not attended either course. However, these friendships exclude host-nationals, and this study has not identified the extent to which the IS respondents had support from their British peers in adjusting to the academic and social systems, although previous evidence has indicated that to be limited or superficial due to both language and cultural barriers (Copland and Garton, 2011; Spencer-Oatey and Xiong, 2006).

Results also highlighted a significant difference between groups in the path **English Confidence→Extracurricular Activities**, although a slightly weaker relationship was indicated for the PEAP group. Students will join clubs and activities to help them develop social relationships, but according to the author's focus group evidence, previous PEAP students have developed a good social network during the time on their PEAP course. It may be that these students felt less need to use extracurricular activities as a way of meeting others during their Masters year. However, the small standardised regression weights (β=.010 for PEAP group and β=.012 for non-PEAP) indicate that both paths are of minor importance.

A further important finding was group differences in the path from **Teaching Effectiveness→ Satisfaction → Referral Intention**, although as before, it was weaker for PEAP attendees, and for the combined PEAP and NTIC group. This is contrary to one identified study implying that direct entrants to tertiary education tend to have higher expectations and more dissatisfaction with their academic results than pre-sessional students (Terraschke and Wahid, 2011). The results may have been due to the lower numbers of E&SE Asians in the non-PEAP group (30%) together with the fact that these international students were only 30% likely to recommend NTU compared to other ISs. Perhaps they did not feel the same sense of belonging to the University that they may have had to those from their PEAP course; these courses are often ISs' first experience abroad, where they form bonds with other ISs, often co-nationals. In addition, the culture is centred around providing guidance and support for the ISs to adjust to both the different learning environment and also the new culture. It may be that their expectations were raised from their PEAP experiences and their perceived experiences on their Masters course did not meet those expectations. A key aim of a PEAP course is to develop ISs language proficiency for their Masters study; if this was not sufficient to overcome language barriers and achieve a 'good' result in line with native students, this also may have resulted in lower satisfaction and willingness to recommend. On the other hand, it may be down to the different interpretation of the question. In one of the focus groups for this research, for example, one student from Vietnam explained that she would only recommend her Masters course to a friend or family member if she felt that they wanted a more academic programme. She applied this question very specifically to the context of her friends and family, rather than seeing it as a more general question that sought to explore a person's willingness to refer, given that another may be interested in a similar course. So it may be that East and Southeast Asian students interpreted this question somewhat differently than did other students which would skew the results. Of course, another explanation could be that they may just not have the same propensity to exhibit advocacy behaviour than other cultural groups might do, although there seems to be no empirical data to support this view. Other than that, it is difficult to speculate and further investigation is needed.

Hypothesis 3c: Subject of Previous Degree

Analysis could not be conducted to test this hypothesis because the model did not converge. This study's sample size did not meet with recommendations regarding SEM (Green, 2015). As this model was not only complex but had insufficient data with which to compare two groups, and had data that was positively skewed which violated the assumption of normality (Bagozzi and Yi, 2012), the test of the hypothesis across groups was not possible, thus no conclusions can be drawn.

Hypothesis 3d: Cultural Distance

Results indicated that cultural distance moderated the relationship between four paths, although only two were supportive of the hypothesis: **Teaching Effectiveness→ Satisfaction** and **Satisfaction → Referral Intention**. These two relationship paths were weaker for the high cultural distance (Collectivist) group, as expected. This suggests that the Collectivists, comprised primarily of E&SE Asian students, would appear to exhibit <u>less</u> satisfaction and intention to recommend their course than other international students, and these differences in satisfaction levels could be attributed to cultural distance (Hofstede, 1980; Gudykunst et al, 2005, Thomson et al, 2006). It is logical to assume that students with a greater distance in cultural values from their host may not have as satisfactory an experience as they had been expecting, or had in their home-based education, and indeed these findings also support previous research that different cultures have different expectations and perceptions of educational service quality (Kwan and Ng, 1999; Arambewela and Hall, 2006; Grebennikov and Skaines, 2007) and hence dissimilar levels of satisfaction responses (e.g. Arambewela and Hall, 2007; Wilkins and Balakrishnan, 2013). However different studies do show divergent between-group results. Whilst this study identified Indian and Asian students as less satisfied than other international students, including African and Emirati, prior results have shown Indian students to be more satisfied than African and Emirati (Wilkins and Balakrishnan, 2013) and Indian students to be less satisfied than Chinese students (Arambewela and Hall, 2007). In conclusion, the most that can be inferred from these results is that although clear differences are evident between cultural groups, attempting to draw direct comparison between studies might not be appropriate (Morrison et al, 2005), as different student profiles, academic and host communities blend into a unique cocktail creating different contexts which cannot be generalised.

The path **Satisfaction → Referral Intention** also shows a clear difference between cultural groups; the Collectivist group is less likely to exhibit intention to recommend than the low cultural distance group.

Some studies on satisfaction included items related to recommending the university when comparing cultural groups (e.g. Finley, 2014; Wilkins et al, 2015), although these items were not measured within the factor of loyalty. There is seemingly no empirical research which shows satisfaction and consequent referral intention to be a function of cultural distance other than these few studies, so this is quite an important finding. Additionally, a significant difference between groups on the path **English Confidence→ Teaching Effectiveness** and **English Confidence→ Social Relationships** was found, although the results were contrary to expectations. The relationship was less positive for respondents with a small cultural distance, which seemingly contradicts previous research that greater cultural distance can be a contributing factor in cultural stress (Thomson et al, 2006) and sociocultural adjustment (Volet and Ang, 1998; Ward and Kennedy, 1999; Fritz et al, 2008; Li et al, 2010). The way in which the groups were determined because of the constraints of a relatively small dataset has undoubtedly affected results so it is best not to draw particular inferences from this.

5.4 Summary of Results

Out of the nine hypotheses proposed, five have been supported, one partially supported, and three unsupported, as summarised in Table 5.2 below. In other words, the results imply that there are four important paths as outlined in the original conceptual framework: 1) English language proficiency to overall satisfaction; 2) English language proficiency to academic adjustment to overall satisfaction, 3) English language proficiency to social adjustment to overall satisfaction, and 4) overall satisfaction to loyalty. In addition, results for two of the moderators, pre-sessional course completion and cultural distance, confirm that there is a different pattern evident between each of the different groups, however for cultural distance, this pattern is only evident on the path through academic adjustment, and not social or cultural adjustment. With regard to the three unsupported hypotheses, 2c and 3c, the results imply that neither cultural adjustment nor completion of a prior business or management degree significantly affect the relationship between English language proficiency and satisfaction. As these hypotheses were not based on a strong theoretical foundation these results are not surprising. The lack of empirical support for hypothesis 3a, on the other hand, may be down to a number of factors such as effective induction and student support systems throughout their study period, to a faulty research design, i.e. respondents may have adjusted to the social and cultural systems to a sufficient extent by the time they completed the survey instrument. The next section, Chapter 6, will review these results in more detail, relating the results to the research questions posed.

Table 5.2: Summary of Hypotheses and Results

Hypothesis	*Relationship*	*Results*
1a	The higher an international student's (IS's) English language proficiency, as measured by perceived English language proficiency and communication confidence, the higher the overall satisfaction of course experience.	Supported
1b	The higher an IS's English language proficiency, the higher the loyalty, as mediated by overall satisfaction.	Supported
2a	Academic adjustment mediates the positive effects of English language proficiency on overall satisfaction.	Supported
2b	Social adjustment mediates the positive effects of English language proficiency on overall satisfaction.	Supported
2c	Cultural adjustment mediates the positive effects of English language proficiency on overall satisfaction.	Not supported
3a	The length of time residing in an English-speaking country moderates the positive effect of English language proficiency on social and cultural adjustment, such that the longer a student resides in an English-speaking country the more positive the effect.	Not supported
3b	Completion of a pre-sessional course moderates the positive effect of English language proficiency on academic and social adjustment, such that the effect is stronger for successful completion of a pre-sessional course.	Supported
3c	Completion of a first degree in business or management moderates the positive effect of English language proficiency on academic adjustment, such that the effect is stronger for prior completion of a business or management degree.	Not supported
3d	Cultural distance moderates the positive effect of English language proficiency on academic, social and cultural adjustment, such that the effect is less positive for greater cultural distance.	Partially supported

CHAPTER 6: CONCLUSIONS AND CONTRIBUTIONS

The objective of this study was to develop a framework for research through which to explore the role that English language proficiency plays in course satisfaction and selected behavioural intention outcomes, and the extent to which these outcomes are affected by international students (IS)'s ability to adapt to their new academic, social and cultural environments. Another aim was to investigate the effect of pre-entry attributes such as students' country of origin, on the outcomes. The focus was on international postgraduate business students taking their course in the UK, for which there are relatively few studies, and fewer still on the relationships between English language proficiency, educational quality, satisfaction and loyalty. This gap in knowledge was addressed through the following research questions:

1. Does English language proficiency have a positive effect on international students' satisfaction levels and behavioural outcomes?

2. What is the impact of English language proficiency on international students' adaptation to their academic, social and cultural environments?

3. Does successful adjustment to their academic, social and cultural environments result in more satisfied students?

4. Can pre-entry attributes such as pre-sessional course attendance, and country of origin, explain any variance between language proficiency and the overall course experience of different students?

As the research questions focused on a complex interaction of relationships between a number of different latent variables, a conceptual model was developed and relevant hypotheses tested through SEM. In addressing research question one, evidence has been provided that English language proficiency, as measured by confidence in English use, is moderately predictive of academic and social adaptation for the respondents in this study. The findings are in accordance with other studies that have identified English proficiency as one determinant of student's successful experience. The results have also generally supported the literature on NNES student experiences in higher education and their satisfaction outcomes, whilst its unique design has contributed to the academic study in this domain. It is important to note, however, that all results have been interpreted cautiously. This is primarily due to the relatively small sample size, but also because contextual issues mean that results might not be generalisable across the sector. Whilst this structural model adds to the evidence needed to provide an insight into the complex influences on institutional outcomes, the open nature of the academic and social systems in play suggests that further research is needed to determine whether the same results can be achieved at different times and places. That being said, this study's findings have provided empirical evidence supporting the propositions put forward by other educators that English language proficiency plays a significant role in international students' satisfaction with their course experience. A number of prior studies have examined the relationship between levels of English language proficiency and academic achievement, but this new model has extended that knowledge to include satisfaction and loyalty outcomes.

The results of this study were also deployed to answer the second research question, and have highlighted the strengths of the relationships between English language proficiency and academic, social and cultural adaptation. Adjustment to the academic system was evident from the positive relational paths between English proficiency and both teaching effectiveness and perceived academic performance. The impact of English proficiency on social and cultural adjustment is also strong, and supports the wealth of previous research in this area.

The third research question was partially answered in the affirmative. The model indicates a significant effect for both academic and social adaptation as mediated between English proficiency and satisfaction, through the latent variables of teaching effectiveness, academic performance, and social relationships, hence they are seen as important pre-requisites to course achievement, satisfaction and both repurchase and referral intention outcomes. The more effective the student's academic and social adaptation, the higher the satisfaction and loyalty outcomes. Overall, adaptation through the development of social relationships is seen to be only slightly less important than teaching effectiveness as a factor influencing satisfaction, and academic performance is lowest of the three in importance. This provides empirical validation for the strong influence of social relationships on IS's overall satisfaction with their course experience. However, there was no significant mediating effect on satisfaction for cultural adaptation. This suggests that students can view their overall course experience as positive, and display favourable loyalty intentions, without necessarily needing to adapt to culture-specific aspects of their host environment.

Finally, four different student pre-entry attributes were tested in the structural model, to help answer research question four. Results confirm that pre-sessional course completion and cultural distance act as moderators on the strength of the relationships in the model; in other words, differences between groups are evident for these two attributes. The EAP course attribute is shown to have the most interaction in the model, as six paths are highlighted as different between those who attended EAP and those who did not. Attending an EAP or pre-Masters foundation course has a stronger positive influence on perceived academic performance and social relationships, highlighting these courses' effectiveness in developing academic language and study skills and the opportunity for students to develop their social networks prior to starting their Masters course. These findings supplement the knowledge in this underdeveloped academic area. On the other hand, those who were direct entrants onto the Masters course exhibited a significantly more favourable repurchase intention than those who attended either of the two pre-sessional courses, which is contrary to expectations and previous findings. Further research would be needed to explore the reasons for these results.

In addition, the results from the structural model have provided clear evidence that international students from different cultural backgrounds have different satisfaction levels. Prior research into this area is sparse, but results from this present study concur with earlier findings (e.g. Arambewela and Hall, 2007; Wilkins and Balakrishnan, 2013). The model has also added knowledge by extending the range of concepts explored to include dimensions of loyalty. Language support mechanisms put in place for ISs are, for the most part, quite generic, but this research has shown that there is a need to assess different cultural groups separately. This demonstrates that international students are not homogenous; they have different expectations, beliefs and attitudes towards their educational sojourn, the university facilities and support required, and the responses and perceptions of their overall experience.

6.1 Implications for Practice and Recommendations

Seen as an important path to competitive advantage, HEIs have worked very hard in the last few years to improve their student satisfaction ratings. The results from satisfaction surveys are now being used as a key measure in national ratings and league tables and an important tool in recruiting students. Although there is not yet a recognised ranking system or league tables for institutional comparison at postgraduate level, universities are now increasingly focusing on postgraduate satisfaction surveys. The ability to attract better quality students and academics, as well as to increase revenue through charging higher tuition fees, is a top priority for universities. However there were differences found between cultural groups regarding the importance placed on certain dimensions of service quality and their impact on satisfaction. So, gaining a more comprehensive knowledge of those dimensions which are important to postgraduate students, both international and native, is an important first step in pursuing that competitive advantage.

HEIs have tended to focus on a quality-related approach to improving satisfaction, and this study has certainly provided a good indication that service quality does have a significant effect on satisfaction. However, it is commitment to long-term relationships that will provide the benefits for the university through course recommendations. This commitment to the HEI depends on the students' ability to adjust to their academic environment (Hennig-Thurau et al, 2001) although it is also "at least as much a function of institutional behaviour as it is of student behaviour" (Tinto, 2012, p202). By focusing on developing international students' 'sense of belonging', i.e. feeling a member of, and connected to, a community, then it is more likely that institutions will promote and foster loyalty and thus encourage students to remain connected to the university in the future, through alumni programmes, consultancy projects, further study, etc. as well as advocating the university to friends, colleagues and the wider community.

Above all, this study showed that developing social relationships was on a par with educational service quality in generating satisfaction. Whilst the need to support NNES students more effectively during their study sojourn in the UK has also been recognised by making academic language support available, putting mechanisms in place to allow for effective peer network development and personal relationships for non-Anglo international students could pave the way for higher satisfaction ratings and subsequent loyalty.

Connecting globally is one of the key strategic goals for this University (Nottingham Trent University, 2015) with an action to provide the support and opportunities for international students to succeed, although evidence from the research conducted for this doctorate suggests there is still somewhat of a gap between objectives and current practice. One of the University's key approaches to achieving this strategy is curriculum internationalisation, which is intended to encourage development of cross-cultural competence and awareness with home students, promote a more intercultural perspective in the classroom, and provide a more inclusive and welcoming environment. This will only work if the University recognises the need to meet the needs of ISs as well as their home students, by allocating resources on strategies that better support these students to adapt to the academic environment, and incorporate feelings of belongingness, which, in turn, will improve the opportunities for satisfaction and loyalty outcomes. It is also vitally important that universities recognise the important role that academic staff can, and do, play in the development and maintenance of IS's satisfaction with their study experience. Providing intercultural training and development for academic staff can aid in raising their cultural sensitivity, hence allowing them to infuse "an intercultural perspective into the curriculum through discovering alternative ways of thinking" (Mestenhauser & Ellingboe, 1998, in Myles & Cheng, 2003, p.253).

Achieving the minimum English language test score set for a particular course, such as through completion of an IELTS test, is not in and by itself a necessarily good indication of a student's preparedness for academic study in an English university (Banerjee and Wall, 2006). Gaining entry onto a chosen course is not confirmation of adequate language proficiency, but just the start (Dooey, 2010). Learning to use English language efficiently and to good effect is a challenge to which ISs must rise if they hope to perform to their academic potential. This study and the previous literature discussed does provide a strong indication that lower language proficiency negatively impacts satisfaction and potentially, loyalty. This indicates that all NNES students, but particularly those with high cultural distance, would benefit from attending a pre-sessional business and/or academic English course. As well as better preparing them for understanding the academic expectations as Masters students, it would afford them the opportunity to develop a support network, and to start building that sense of belonging, i.e. emotional commitment, to the university, so important to maintaining a relationship with the university for the future.

There is still evidence of a gap in achievement for those who have lower English proficiency (Cummins and Yee-Fun, 2007, p.801 in Dooey, 2010); with the suggestion that NNES need "at least 5 years of exposure to academic English to catch up to native-speaker norms", this needs to be addressed. Particularly with the focus today on both graduate employability and global relevance, HEIs should be aiming towards ensuring that ISs have an equal opportunity to attain the same standard at completion of their Masters as our home students, such that they can secure employment in the UK upon their graduation.

Based on these implications, following are a number of recommendations for the University within which this study has been based. It is important for the University to take steps to consider the actions and investments necessary to help decrease, and ultimately remove, the gap between home and IS experiences and outcomes. Although many of these recommendations offer long-term benefits for the University, the author appreciates that the University's ability to implement them will be influenced by its resource constraints, competing agendas and priorities towards more short-term results.

At Institution and School level:

1. Although it has been demonstrated that raising the entry level on English proficiency scores can improve ISs adaptation to their academic environment (e.g. Dunn, 2006; Zhang and Goodson, 2011) and subsequent course results (e.g. Andrade, 2006), it is understood that the University will not be considering this action any time soon. Therefore, the University is recommended to consider other intervention strategies for direct entrant students. The evidence from this study identified that NNESs who complete pre-sessional courses achieve higher satisfaction and loyalty outcomes than direct entrants, so more focus on pre-arrival preparedness and inductions which specifically focus on ISs needs may give students more support to adapt to their new academic environment. In the longer term, it is advised to revisit the pre-sessional policy, and consider the benefits of a compulsory pre-masters course for all NNES students who have not undertaken a first degree in an English-speaking country, focusing on discipline-specific language and assessments, to increase the probability of higher University outcomes within the shorter time period of most post-graduate study. The length of the course could be determined by prior assessment of factors such as language scores, previous educational and work experience, and cultural distance. It is recognised that this has the potential to negatively impact on programme registration, and might be perceived as an unwelcome imposition, so it is important that the University also pro-actively promote the benefits the pre-sessional course would bring to potential students, in particular that students should achieve higher results and a more satisfactory experience.
2. The evidence showed that whilst overall satisfaction has been achieved, behavioural intention outcomes could be much improved. In order to generate positive word-of-mouth behaviour, an improved University image, and ultimately increased international student numbers, more research should be conducted specifically on the expectations and needs of international postgraduate students,

who are somewhat invisible in University satisfaction surveys, to identify the drivers of satisfaction and belongingness. In addition, measuring ISs' outcomes in a more systematic way and analysing results will also provide a better knowledge base. Following the analysis of the research findings, the University is recommended to focus on strategies to build a strong inclusive community within the institution itself and the students' respective Schools, for example by providing a wider, more varied range of study workshops and support services specifically to meet the needs of ISs, as well as extra-curricular activities which engage international students with their classmates and with the local community, and by intercultural training to support services staff. Another strategy worth considering is for front-line support staff to attend cultural awareness workshops to stimulate more effective communication with ISs. Increasing both international and home Masters students' sense of belonging and loyalty, both during their course and afterwards, will gain maximum benefit from advocacy behaviours and potential future collaborations between alumni students, their employers, and the University.

3. Evidence suggested that different cultures have different perceptions of their English confidence and its influence on teaching and learning experiences which in turn affect differences in course outcomes. Therefore, it is recommended that the University conduct research to identify where these differences lie, and whether different cultures would benefit from customised language and/or study support to ensure increased student satisfaction and loyalty. For example, general language support classes are currently provided to all Tier 4 international students, but it may be that these should be tailored according to students' different language and cultural needs.
4. Bridging strategies (Ramachandran 2011) should be considered to ensure that ISs are not alienated within an unfamiliar system and have the best opportunity to adapt. Steps should be taken to help ISs secure the same opportunity for high achievement as their native peers. Mentoring by academics and other experienced staff to provide emotional, academic and social support is one way to help bridge the gap between different cultures when a student commences his or her study. Another recommended strategy, proven successful in improving social adaptation and academic achievement for undergraduates, is to introduce peer-pairing programmes (Westwood and Barker, 1990) or 'buddy' schemes for postgraduate students: not only should this benefit ISs and increase their satisfaction, it should benefit British students as well, through development of their cross-cultural awareness and competence.

5. Although there have been initiatives to implement the internationalisation of learning and teaching following the University's new strategic goal of 'connecting globally', such as through European exchange partnerships allowing for student and staff mobility, there are benefits to be gained by strategies which focus on creating knowledge and understanding of other countries, religions and values for students and staff alike. It is recommended that key performance indicators be developed and some resources be devoted towards providing global citizenship education for students to develop intercultural competence, for example by introducing global citizenship courses, and encouraging more international societies, cross-cultural volunteering projects and internships, IS involvement at student representation bodies, and student-to-student language and academic skills support. Although it is now compulsory that new teaching staff complete a learning and teaching award, it is advised to include development of intercultural communication and competence as a key element of such an award.

At Course and Module level:

6. Interaction between home and international students is one key driver to improving IS satisfaction. As it is within the classroom that most student interaction occurs, it is recommended that there be more formal requirement for home and international students to interact, which aligns with the University's strategic goal to further promote internationalisation in the curriculum. For example, cross-cultural learning and interaction could be incorporated into course design, perhaps by use of a tool such as the Interaction for Learning Framework (Arkoudis et al, 2013). This will require sufficient support and training to be put in place for all academic staff within the School, in order to a) create the right environment for cross-cultural interaction to occur, b) learn strategies to support ISs to develop their confidence in communicating with peers from their first class, and c) design teaching and learning activities which necessitate engaging with those from other cultural backgrounds, and reflecting upon the different international perspectives and practices.
7. It is recommended that Course Leaders conduct a needs analysis (Hellstén and Prescott, 2004) prior to study commencement, to determine what level and type of support, within the constraints of the course, each IS requires, rather than follow a 'one size fits all' strategy. For example, some students may need more language support whilst other students may only require support in learning academic conventions. The Course teams should also be instrumental in matching ISs with mentors or buddies, certainly for the first term of study.

8. The Course Leader is recommended to provide more opportunities to develop social networks between NNESs and home students within the University, not just at the pre-sessional stage, but also during the course study period, to improve satisfaction and subsequent loyalty behaviours. This could be, for example, through the provision of student social committees to develop social events for course members, and in collaboration with other Masters courses, funded at least in part from the course budgets. The social events could be international in flavour, such as celebrating national days, or religious holidays, in order to foster intercultural learning. This could also be linked to course or module outcomes, e.g. as part of developing transferable skills such as communications, project management, marketing and budgeting.
9. One of the University's goals within its new strategic plan is to increase the number of international students "to stimulate a vibrant multinational learning community" (Nottingham Trent University, 2015). However, just putting home and international students together does not foster intercultural understanding and in fact many students still appear to be marginalised. When home students continue to express the view that they "don't want to work with international students" (often within earshot of said students) there is a long way to go to address the attitudes and behaviours of the host towards their global visitors. Interventions to develop better intercultural relations for both academic staff and home students are recommended, in order to allow for the development of greater sensitivity towards the feelings of international students in the classroom. Courses and modules should be more formally required to include a number of international aspects, to allow all students to acquire international competences. At a minimum, learning outcomes should include references to the international labour market and international competences, and a range of teaching methods should be provided to allow ISs to use more familiar learning strategies.
10. It is recommended that academic staff be encouraged to increase their communication and collaboration across departments and schools on internationalisation issues, e.g. through provision of specific workshops and within monthly staff divisional meetings. In addition, language courses should be offered to any teaching staff, and especially NNES staff, who want to facilitate their communication with international students.

6.2 Dissemination Strategy

In order to ensure that the findings from this research are disseminated effectively to School and University audiences, as well as the wider academic community, the author aims to implement the following programme of activities as a precursor to more extensive work following further research:

To:	Details:	When:
Academic Marketing Division, NBS	Provide a summary of results to the Marketing academic colleagues during the monthly research meeting	June 2016
Course Leaders, NBS	Provide a summary of the survey results, by course, to each Course Leader	Mid-June 2016
NTU Annual L&T Conference	Run workshop presenting key findings and inviting staff views and experiences	5 July 2016
NBS Staff Development Event	Feedback findings and share experience and best practice with colleagues	20-21 September 2016
Trent Institute for Learning & Teaching Internationalisation Group	Provide summary of results to members as information to be used towards long-term plan of internationalisation across the University	September 2016
Academic community	Attend a conference to disseminate research to engaged academics	By July 2017
Academic community	Produce an article to publish in a suitable HE journal	By December 2017

During the next teaching year, there will no doubt be a number of other formal, and especially informal, occasions in which to disseminate the results of this study and provide suggested recommendations to academics and management.

6.3 Limitations, Reflections, and Directions for Future Research

Limitations

There are limitations to conducting research of this type which should be considered before future research in this field of enquiry is undertaken. Firstly, most of the questions on the survey instrument focused on measuring student attitudes towards their course experience. Although measuring attitudes is a conventional means of obtaining insights into likely behaviour, providing diagnostic knowledge not otherwise available through observation, "attitudes are inherently variable, and are highly reflective of the context in which they are expressed" (Ackroyd & Karlsson, 2014, p. 34). Therefore, a number of factors are likely impact the generalisability of case-based attitude studies. Firstly, because education operates as an open system, results will differ depending on the particular mix of cohorts surveyed, with their different blend of student educational backgrounds, personalities, cultural and social norms, etc. resulting in potentially different perceptions towards the educational as well as social experiences for each group. Other contextual differences include course and university environments which also are subject to both small and more fundamental changes. Students who demonstrate high overall satisfaction with a course one year might respond differently following changes to course structure or content, or to the availability of university support services and facilities from one year to the next. Also, students' relation to behaviour is also complex, may not always be entirely rational or logical, and thus can be hard to decipher.

In addition, the study focused on self-reports of perceived confidence to measure language proficiency, and self-reports of expected grade on completion, which is not the same as actual institutional outcomes. Although the former is based on evidence that language confidence is an effective measure of proficiency, the study may have benefited from the inclusion of more objective measures such as IELTS ratings and actual grades or degree classification. In addition, the review of previous literature on satisfaction uncovers a range of different variables and scales used in measuring satisfaction, as well as different students and institutions studied; this complicates educators' understanding of the influences of student satisfaction and highlights just how complex this construct is (Thomas and Galambos, 2004). Whilst the model in this study supported the validity of the scales used to construct the survey instrument, these original scales, taken from previous literature, were not tested specifically with international students; more appropriate scales might possibly have been used which could also have provided acceptable results, or possibly a better fit, than was the case for this model.

Similar to satisfaction and other evaluation surveys, certain assumptions are made about the way respondents understand and answer each question. For example, when indicating agreement on a question like 'feedback on my work has come back on time', one assumes that they have the mental ability to sample, summarise, and average all of their feedback experiences over an entire academic year in order to provide an accurate answer (Eley, 2001). If, in fact, they are likely only to remember the most recent, or most memorable experiences, answers will not be an accurate representation of their experiences over the entire timeframe.

Although results from this study have considered the moderating influence of a number of pre-entry attributes on the relationship between English language proficiency and institutional outcomes, there are other potential attributes that were not included in this research. For example, both self-construal (see Yang et al 2004; Ward & Kennedy, 1992), and locus of control (see Garger et al 2010, Wilkins and Balakrishnan, 2013) have been shown to relate to English language proficiency and student satisfaction, respectively. Further, because of the small number of respondents representing individual countries or regions, the categories used to define the cultural groups were of necessity broad and definitionally less precise than would have likely been the case from a larger study. A larger study with more culturally-diverse respondents would be needed in order to develop more refined categories upon which to develop strategies.

This structural model was developed from a review of the literature and primary research with students, to identify issues relevant to their specific concerns and needs, and goodness-of-fit was determined to be adequate, therefore it has plausibility as an explanation of relations among the variables. However, as Byrne (2010) explains, it is not possible to fit real-world data exactly to postulated models; at best they are only ever approximate. There are always unknowns within these models. Some of the paths posited had limited or no connection to previous research suggesting that there were other environmental factors affecting those relationships. Therefore, it is important to recognise, when using an SEM approach, that the data may fit other models and constructs, which may provide different explanations for relationships between English language proficiency and student satisfaction and loyalty.

Reflections

Although the sample data in this study was sufficiently large to use the SEM method (Byrne, 2010) there are some who contend that studies with 200 or more respondents are preferable when testing structural models, particularly when they are complex (e.g. Weston and Gore, 2006). Originally, that was the intention of this study, and achieving a sample size of 200 had initially seemed realistic, but problems were encountered when attempting to accumulate the required sample size. It had been presumed that the population upon which to draw the Masters student sample for this study would be similar to that of the Document 4 study conducted for this DBA project in the previous year, which had been calculated as over 300. Once it was determined that the size of the potential respondent group was, in fact, nearer to 200, it was decided to survey the entire population of Masters students through in-class distribution of the survey instrument, to reach the maximum number of potential respondents and to reduce sampling error. However, the response rate was lower than had originally been envisaged due to the specific timing of the distribution. In other words, the questionnaires needed to be distributed as close as possible to course completion, but final classes had up to a 40% absence rate, so even with one further attempt at distributing surveys, less than three-quarters of the total population eventually completed (see Appendix 5). Nevertheless, although less than hoped for, the response size of 135 is still considered sufficient to achieve meaningful results (Bagozzi and Yi, 2012). This does, however, raise a question about the non-participating students, as a potentially important group representing those who were less engaged or with lower feelings of belonging towards their course, and thus not having their responses may have biased the results (Richardson, 2005). Another potential bias regarding the survey timing was that satisfaction measures were taken before students received their overall grade classification, and it could be that the actual grades received may have altered their responses and thus the model findings.

Due to unanticipated time constraints, this final research necessitated limiting the focus to a single institution. Inevitably, this means results cannot be generalised to other HEIs (Fisher, 2007). However, the resulting case study element to this research is also a strength, in terms of its usefulness for this University. Further, implications for Nottingham Business School are not confounded by including more than one academic discipline, and therefore offer higher confidence as to the attitudes and beliefs, and relational paths, of the students attending this School. Data obtained at the individual course level provides useful feedback for diagnostic purposes, and allows for comparisons between individual courses and departments. It is a starting point for evaluating best practice at school level, and to determine the specific interventions needed in order to improve international student satisfaction and loyalty behaviours within this institution.

Overall, notwithstanding study limitations and data collection issues that did not become apparent until commencing questionnaire administration and collection, the present study has contributed by providing support for most of the relationships explored in earlier research, and extending academic knowledge by identifying significant paths not previously tested. By no means are these results conclusive, but this research contributes to educators' understanding of international students' experiences through a useful theoretical model. English language proficiency is clearly one of the factors impacting satisfaction. Ensuring that students have sufficient

English proficiency will play an important part in achieving satisfactory and successful experiences during their study, and more probability of positive outcomes for the University.

Directions for Future Research

Because one of the main limitations of this study has been its relatively small sample size, it would be useful either to replicate the research using a larger sample, or to supplement the existing research by adding data derived from next year's cohort. Student attitudes could also be explored over a wider range of courses and academic years, to determine whether results vary by academic discipline or undergraduate versus postgraduate study, coincidentally increasing sample size and thus generalisability. The objective of such a study would be to use the results in order to enhance NTU and NBS marketing and recruitment strategies and activities.

Much more research is needed into the effect of language proficiency on course outcomes of satisfaction and dimensions of loyalty, as this area has so far been under-represented (Zhang and Goodson, 2011; Copland and Garton, 2011). Similarly, the difference in language proficiency, academic literacy and institutional outcomes between direct entrant NNES students and those who completed a pre-sessional EAP course, warrants larger-scale quantitative investigations (Storch and Tapper, 2009; Dooey, 2010) to ensure that both groups of NNESs are sufficiently prepared for their Masters study, and that educational resources are being effectively utilised.

There are also a number of different avenues that could be explored in future to develop this field of research. Taking a longitudinal approach to researching international students' English language confidence from the start to the completion of their higher education sojourn would certainly be more appropriate to understanding its effect on adaptation, satisfaction and outcomes and provide comparative data. It has been shown in previous studies (e.g. Myles and Cheng, 2003; Masgoret, 2006; Brown, 2008b) that students can adapt fairly quickly to the socio-cultural environment, but evidence from different domains suggests that most of the academic competences are affected by language, and that NNESs need more than one semester to adjust academically. This would allow for a much better understanding of the role that these mechanisms play, and the relationships between them, throughout the students' journey. In addition, surveying graduates six to twelve months after their course, to allow them a period of reflection on their learning and the benefits gained from their sojourn, could provide for more accurate results. This would provide an opportunity to measure actual loyalty behaviour, as intention to repurchase or refer is not the same as action (Oliver, 1999). Thus a more accurate picture could emerge as to actual advocacy and repurchase behaviour, and the extent to which the respondents still feel emotionally committed to their HEI.

The moderator analysis conducted for this study has added to the body of knowledge in what was a significantly limited area of understanding. Few of the relationships discussed in this study have been tested for between-group interactions, so this should be a key focus for future research. Further evidence is needed on the responses generated by students on different courses and in different institutions, in order to ensure that these groups' needs are being met effectively, or that ineffective support mechanisms can be identified. It would also be useful to extend research such that cultures marginal to this specific study were represented in numbers appropriate to viable statistical study. If there is evidence that some cultural groups have different needs or expectations, for example, and they do not perceive their support as effective because they are 'lumped together' in a homogenous international student group, these groups might be unknowingly marginalised. Thus, at completion, they are more likely to view their course as less satisfactory than other groups. Future research could make a significant academic contribution towards better understanding, and also be of value for HEIs, particularly in developing targeted strategies to meet particular groups' needs and increase the opportunity for differential advantage.

What was not clear from this study was why differences existed in the dimensions of loyalty intentions between the different groups. A key future direction could be qualitative research to help to fill this gap by providing an interpretive understanding of the mechanisms at work, for example whether the responses are from a cultural or educational origin. Related to this, the student's sense of belonging to their educational institution came across as an important aspect of retention and/or loyalty in some studies (e.g. Thomas, 2012; O'Keeffe, 2013; Finley, 2014) but this area is under-researched. Further investigation is needed to gain a deeper understanding of the role that language proficiency and other attributes play in building a sense of belonging to the international student's HEI. This important data would be useful in developing educational strategies to enhance ISs' engagement in their institution's academic and social systems, and the subsequent sense of belonging should in principle, lead to a stronger sense of community, satisfaction, and loyalty.

Academic staff have been found to play a key role in the successful course experience of ISs, so future research could be undertaken that would shed light on the perceptions that academic staff have towards NNES students, and their awareness of the range of language-related challenges these students need to overcome to achieve academic literacy. In addition, previous academic research has focused on the challenges that NNESs face in achieving a successful course experience, but the challenges that academics face in interacting with these students and supporting them to best achieve their potential is less clear. Thus, another avenue for future study could focus on the extent to which academic staff have been able to generate effective teaching and learning strategies to support NNESs in developing communication confidence, engage in classroom activities, and adapt to their academic environment.

As long as UK HEIs continue to rely on recruitment of international students to generate future revenue for postgraduate programmes, quantitative studies such as this one will be valuable in seeking explanations for the various influences on the formation of satisfaction and loyalty outcomes. This will benefit HEIs, academic and support staff to better understand individual needs and to deliver more effective services and strategies to enhance ISs educational experiences during their sojourn to the UK.

CHAPTER 7: REFERENCES

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NTU ENTRY REQUIREMENTS

FOR MASTERS DEGREES

NTU School (or course)	Postgraduate (Masters) courses IELTS*
School of Art & Design All practice-based courses	6.5 with a minimum of 5.5 in each component
School of Animal, Rural and Environmental Sciences School of Architecture, Design and the Built Environment School of Arts and Humanities (see below for Centre for Broadcasting & Journalism) School of Education School of Science and Technology Nottingham Business School Nottingham Law School (see below for BPTC) School of Social Sciences (see below for BA (Hons) and MA Social Work) School of Art & Design BA (Hons) Fashion Marketing and Branding BA (Hons) Fashion Communication and Promotion BA (Hons) Fashion Management BA (Hons) International Fashion Business	6.5 with minimum of 5.5 in each component
All postgraduate research degrees	6.5 with a minimum of 6.0 in each component or equivalent.

Source: www.ntu.ac.uk/study_with_us/international_students/english_language/international/index.html

FOR PRE-SESSIONAL ENGLISH FOR ACADEMIC PURPOSES (PEAP)

Current IELTS	IELTS Requirement		
	IELTS 6	IELTS 6.5	IELTS 7
4.0 with a minimum of 4.0 in each component	20 weeks	30 weeks	n/a
4.5 with a minimum of 4.0 in each component	15 weeks	20 weeks	n/a
5.0 with a minimum of 4.0 in each component	10 weeks	15 weeks	n/a
5.5 with a minimum of 4.0 in each component	6 weeks	10 weeks	n/a
6.0 with a minimum of 4.0 in each component	None	6 weeks	n/a

Source: www.ntu.ac.uk/apps/pss/course_finder/117278-6/2/short_course_programme_pre-sessional_english_for_academic_purposes.aspx

NOTTINGHAM BUSINESS SCHOOL
Nottingham Trent University

MASTERS STUDENT QUESTIONNAIRE No:

The following questions relate to you and how you feel about your course. Please be assured that all answers are completely anonymous and confidential, and will be used only to better understand your experiences.

About You

Q1. Age?

21 .... ☐
22 .... ☐
23 .... ☐
24 .... ☐
25 or over .... ☐

Q2. Was your previous degree in a **business** or **management** subject?

Yes .... ☐ No .... ☐

Q3. Where is your home country? *(please write)* ______________________________

Q4. Is English your first (native) language?

Yes............ ☐ *if yes, please skip to next page (Q7)*
No .... ☐ *if no, please continue to Q5 below*

English Use and Proficiency

Q5. **Before Starting your Masters this Year…**

a. did you complete a *language foundation course in the UK to improve your academic English*? (e.g. NTU PEAP or similar)

No .... ☐ Yes .... ☐
If yes, for how long? *(**circle one**)* 6 weeks 10 weeks 15 weeks 20 weeks 30 weeks

b. did you complete a *pre-Masters business course* (e.g. NTIC Graduate Diploma or similar)?

No .... ☐ Yes .... ☐
If yes, how many **months**? *(circle one)* 6 7 8 9 10 11 12 15

c. how long did you live in <u>any</u> English-speaking country (*not including time already stated in a. or b. above?)*

less than 1 month .... ☐ 1 - 3 months .... ☐ 4 – 6 months .... ☐ 7 mths – 1 year .... ☐ More than 1 year .... ☐

Q6. **How confident are you in using English now?**

Please decide how much you personally agree or disagree with each statement, and tick the relevant box (☑)	Strongly disagree	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Strongly agree
I am able to read and understand most texts in English	☐	☐	☐	☐	☐	☐
I know enough English to be able to write comfortably	☐	☐	☐	☐	☐	☐
I believe that I know enough English to speak correctly	☐	☐	☐	☐	☐	☐
I am very confident in my ability to write English correctly	☐	☐	☐	☐	☐	☐
I can understand someone speaking English quite well	☐	☐	☐	☐	☐	☐
I know enough English to deal with most situations where I have to use English	☐	☐	☐	☐	☐	☐

Course Experience

Q7. Consider the experiences you have had over the total time of your course, *decide how much you personally agree or disagree with each statement, and tick the relevant box* (☑). There are no right or wrong answers so just answer as honestly as you can.

	Strongly disagree	Slightly disagree	Neither agree or disagree	Slightly agree	Strongly agree
1. The library resources are good enough for my needs	☐	☐	☐	☐	☐
2. Since coming to NTU I have had close friendships with other students	☐	☐	☐	☐	☐
3. Feedback on my work has come back in time	☐	☐	☐	☐	☐
4. Teachers are enthusiastic about what they are teaching	☐	☐	☐	☐	☐
5. As a result of this course, I have more confidence in presenting my ideas	☐	☐	☐	☐	☐
6. Support has been available if I had extra learning needs (e.g. language, academic writing)	☐	☐	☐	☐	☐
7. I have received detailed comments on my coursework	☐	☐	☐	☐	☐
8. Assessment arrangements and marking were fair	☐	☐	☐	☐	☐
9. The course is intellectually stimulating	☐	☐	☐	☐	☐
10. As a result of my course I feel confident about tackling unfamiliar problems	☐	☐	☐	☐	☐
11. I believe most NTU students have beliefs and attitudes different from my own	☐	☐	☐	☐	☐
12. Marking criteria have been made clear in advance	☐	☐	☐	☐	☐
13. I have been able to contact staff when I needed to	☐	☐	☐	☐	☐
14. The friendships I have made at NTU have been personally satisfying	☐	☐	☐	☐	☐
15. The course helped me gain a better understanding of people from different cultures	☐	☐	☐	☐	☐
16. Most feedback I received helped me to understand how to improve future work	☐	☐	☐	☐	☐
17. The course improved my skills in written communication	☐	☐	☐	☐	☐
18. I wish I had made friends with more students from different cultures to mine	☐	☐	☐	☐	☐
19. My teachers were very good at explaining things	☐	☐	☐	☐	☐
20. As a result of this course I have made new friendships	☐	☐	☐	☐	☐
21. I have been able to access general IT resources when I needed to	☐	☐	☐	☐	☐
22. The teaching staff did their best to make the subject interesting	☐	☐	☐	☐	☐
23. I don't know any students who would listen to me or help me if I had a personal problem	☐	☐	☐	☐	☐
24. The course has developed my critical thinking skills	☐	☐	☐	☐	☐
25. I have a social support network at NTU with whom I can share study and personal experiences	☐	☐	☐	☐	☐

Academic Performance

Q8. What do you believe your **FINAL grade classification** will be when you complete your course?

Below a pass (<50%) ………..... ☐ Pass (50-59%) ………..... ☐

Commendation (60-69%) ………..... ☐ Distinction (70% and over) ………..... ☐

Q9. How do you feel about your **academic performance** in this course so far?

Very happy ………........ ☐ I am doing okay ………........ ☐ Very disappointed ………........ ☐

Mostly happy ………........ ☐ A bit disappointed ………........ ☐

Q10. Today, how would you evaluate your **competence in using Academic English**?

(For each language skill below, please mark an 'X' at the point on the line where you rate your ability, with 1 = low, and 9 = advanced)

Reading ____ 1 2 3 4 5 6 7 8 9

Writing ____ 1 2 3 4 5 6 7 8 9

Listening ____ 1 2 3 4 5 6 7 8 9

Speaking ____ 1 2 3 4 5 6 7 8 9

Extra-Curricular Experiences

Q11. Did any of the following extra-curricular experiences increase your satisfaction this year?
Please tick the box (☑) to show the extent of your agreement with each sentence

My overall experience was more satisfying because of the...	Strongly disagree	Slightly disagree	Neither agree or disagree	Slightly agree	Strongly agree	Not applicable
social activities and/or clubs that I could join	☐	☐	☐	☐	☐	☐
sports and leisure facilities available	☐	☐	☐	☐	☐	☐
careers support and advice available	☐	☐	☐	☐	☐	☐
course events to talk to and work with local organisations	☐	☐	☐	☐	☐	☐
social events arranged for students	☐	☐	☐	☐	☐	☐
opportunities I had to travel during the year	☐	☐	☐	☐	☐	☐

International students, please continue below

UK Students, please skip Q12 and go to Q13 on the next page

Community and Cultural Experiences

Q12 **Getting Used to Living in England**

Over this past year, *decide how much difficulty you have had with your experiences below, and tick (☑) the relevant box*

	Extreme difficulty	Great difficulty	Moderate difficulty	Slight difficulty	No difficulty
1. Getting used to the local food	☐	☐	☐	☐	☐
2. Understanding differences between British culture and my culture	☐	☐	☐	☐	☐
3. Having meaningful conversations with native English speakers	☐	☐	☐	☐	☐
4. Dealing with people in positions of power and authority (e.g. on visa, finance, or accommodation issues)	☐	☐	☐	☐	☐
5. Adjusting to daily life in Nottingham	☐	☐	☐	☐	☐
6. Understanding English rules of behaviour and customs	☐	☐	☐	☐	☐
7. Getting on well with people of different racial and ethnic backgrounds	☐	☐	☐	☐	☐
8. Seeing things from different points of view to my own	☐	☐	☐	☐	☐
9. Living independently and making decisions without family assistance	☐	☐	☐	☐	☐
10. Being able to express my ideas or needs clearly to locals	☐	☐	☐	☐	☐

Course Outcomes

Q13. Please indicate the extent to which you agree with the following, *by putting a tick (☑) in the relevant box:*

	Strongly disagree	Slightly disagree	Neither agree or disagree	Slightly agree	Strongly agree
I feel a sense of belonging to NTU	☐	☐	☐	☐	☐
Overall, I am satisfied with the quality of this course	☐	☐	☐	☐	☐
I have had a satisfying experience at NTU	☐	☐	☐	☐	☐
I would still consider NTU as my first choice if I could start over again	☐	☐	☐	☐	☐
If I was interested in taking further study, I would return to NTU if it was possible to do so	☐	☐	☐	☐	☐

Q14. How likely is it that you would… *(please circle (O) a number for each answer)*

	Very Unlikely										Very Likely
Recommend this University to someone who seeks your advice?	0	1	2	3	4	5	6	7	8	9	10
Encourage friends or family to go to this University?	0	1	2	3	4	5	6	7	8	9	10
Say positive things about this University to other people?	0	1	2	3	4	5	6	7	8	9	10

And finally…

Q15. Which MSc course are you currently attending? *(please tick one)*

- ☐ Finance
- ☐ Accounting and Finance
- ☐ Marketing
- ☐ Marketing, Advertising and Communications
- ☐ Management
- ☐ Management and Marketing
- ☐ Management and International Business
- ☐ Other (please name) ______________________
- ☐ Management and Finance
- ☐ Management & Global Supply Chain Mgmt
- ☐ Management and Entrepreneurship
- ☐ Global Business and Management
- ☐ Human Resource Management
- ☐ International Business
- ☐ Economics

I know how busy you are, so thanks so much for participating in my survey and helping me with my research!

If you would like to know the results of this survey, or would like any further information, please contact me at melanie.weaver@ntu.ac.uk

Participant Information Sheet Survey No:

Masters Student Course Experience Questionnaire

Dear Participants: before taking part in this study it is important that you understand why the research is being done and what it will involve. Please take time to read the following information carefully.

The overall aim of my research is to investigate the course experiences of international and home students during their Masters study, as part of a Doctoral thesis in Business Administration at NTU. By gaining a better understanding of student perceptions, needs and level of satisfaction, the information collected will be used to help broaden academic knowledge in the university community, to support teaching and course development, and to help planning at a faculty level, and not for any other purpose.

Information for participants:

- Your participation in filling out this survey is entirely voluntary. You have the right of refusal or withdrawal, without any reason. This applies to completing all or any individual questions.
- Please ensure you complete this survey where you feel relaxed and at ease.
- This survey should take no more than 12 minutes to complete.
- Please note that the survey is totally anonymous; any personal data you give will be for the purposes of research only. All questionnaire data will be written up in my research thesis without any means of identifying the individuals involved, so no information can be tracked back to you.
- By completing this questionnaire you are agreeing to participate in this research; however, after completing the questionnaire, if you would prefer not to be involved in my research then please let me know by **24th July 2015** to request withdrawal. Contact details are on the bottom of this form, and your *survey reference number* is at the top right hand corner.

Thank you for participating in my research!

Contact details:
Melanie Weaver
E-mail: melanie.weaver@ntu.ac.uk
Tel.: 0115 848 8685

Supervisor:
Dr. Tony Woodall
E-mail: tony.woodall@ntu.ac.uk
Tel.: +44 (0)115 848 4313

Please take this sheet away with you for reference

GUIDANCE FOR TUTORS
MASTERS STUDENT COURSE EXPERIENCE QUESTIONNAIRE

Please ask students …

1. to check that each has a Participant Information Sheet and 4 different sides to their questionnaire.

2. to read the top Participant Information sheet and then tear it off the questionnaire so they can keep this for their reference, in case they want to ask me to remove their questionnaire from my study.

3. to take note there are 2 sections in orange boxes which some students don't need to complete - the 1st is only for non-native English speakers, and the 2nd is for all non-UK native students (hopefully the routeing instructions are clear)

4. who finish early, not to disturb those who are still completing the questionnaire. (When piloted the survey took an average of 10 minutes.)

Many thanks for your assistance in my survey!

NBS MASTERS COURSES PARTICIPATING IN SURVEY

Course	No	Contact	Day	Time	Collected	% received
MSc Finance	12	H Knight	Thur 18 Jun	9 or **1**	7	58%
MSc Acctg & Finance	15	M Mangena	Thur 18 June	**11** or 3	12	80%
MSc Marketing	5	I Gregson	Monday 22nd Jun	13:00 in the “pod” seating area of Newton level 0	5	100%
MSc Marketing	11	A Smith	Wed 24 June	5 students **14:30** L Lounge 6 students **16:00** L Lounge	11	100%
MSc Intl Business	10	M Zhang	Thu 25th Jun	Put in room 818 beforehand	7	70%
MSc Economics	10	Francesco *Andy Cooke*	Thurs 25th	9.00 N45	6	60%
MSc Mgmt – X	39	E Sabet	Thu, 2nd Jul	p.m.	27	69%
MSC Mgmt – Y	41	E Sabet	Fri, 3rd July	p.m.	28	68%
MSc Marketing	5	J Vernon Gp 1	Friday	a.m. in Library	5	100%
MSc HRM	20	Derek Watling	last wk in June	copies to DW	19	95%
MSc Marketing	5	JV Grp 2	Thurs	1.45pm Link Lounge	4	80%
MSc Marketing	11	JR placement	Fri Mon Tues	LLounge 12.30 LLounge 11.30 LLounge	6	55%
MDM Mgmt	2	P Considine	Will confirm			0%
MDM Mgmt	2	S Walker	Will confirm			0%
TOTAL	**188**				**137**	

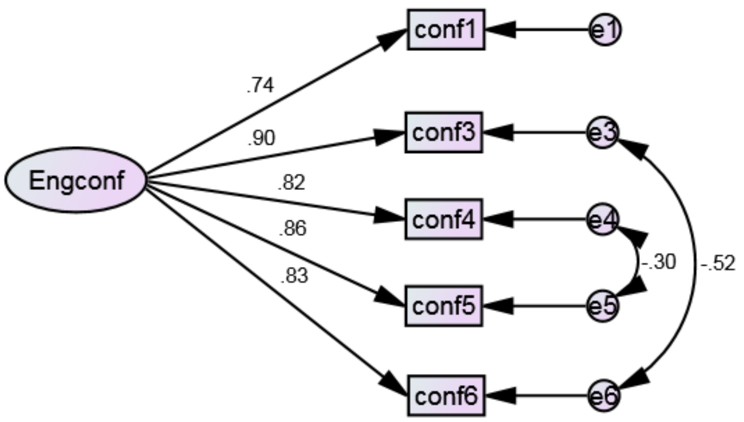
CODEBOOK

Full variable name	SPSS variable name	Coding instructions
identification number	id	subject id number
Age	age	in years
Business or Mgmt degree?	degree	1=yes, 2=no
Home country?	home	1=UK; 2=East Asia; 3=SE Asia, 4= India; 5=W Europe; 6=E Europe; 7=Near & Mid East; 8=Africa; 9=N America
Native English?	nateng	1=yes, 2=no
EAP course?	eap	1=yes, 2=no
EAP course length	eap_wks	in weeks (s/b 6, 10, 15, 20, 30)
Pre-masters course?	ntic	1=yes, 2=no
Pre-masters length?	ntic_trm	in months
Total residence	res	0=<1mth; 1=1-3mths; 2=4-6mths; 3=7-12mths; 4=>12mths
Confidence in using English	conf1 to conf6	1=strongly disagree; 2=disagree moderately; 3=disagree slightly; 4=agree slightly; 5=agree moderately; 6=strongly agree
Course Experience	exp1 to exp25	1=strongly disagree; 2=slightly disagree; 3=neither agree or disagree; 4= slightly agree; 5=strongly agree
Perceived final grade	perf_grade	1=<50%; 2=50-59%; 3=60-69%; 4=70%+
Performance feelings	perf_feel	1=very happy; 2=mostly happy; 3=doing okay; 4=bit disappointed; 5=very disappointed
Competence in using Academic English	readcomp; writcomp; listcomp; speakcomp	1=low to 9=advanced
Satisfaction with Extra-curricular experiences	xtra1 to xtra6	1=strongly disagree; 2=slightly disagree; 3=neither agree or disagree; 4= slightly agree; 5=strongly agree; 6=n/a
Adapting to England	adapt1 to adapt10	1=extreme difficulty; 2=great difficulty; 3=moderate difficulty; 4=slight difficulty; 5=no difficulty
Course outcomes	belong, sat1 & sat2; loy1 & loy2	1=strongly disagree; 2=slightly disagree; 3=neither agree or disagree; 4= slightly agree; 5=strongly agree;
Course outcomes (likelihood of…)	ref1 to ref3	0=not likely to 10=very likely
Total Eng Language confidence	Tlangconf	conf1 + conf2 + conf3 + conf4 + conf5 + conf6
Total Eng Language competence	Tlangcomp	readcomp + writcomp + listcomp + speakcomp
Teachg effectiveness F1 Competencies	Fcomptncs	crsxp24 + crsxp5 + crsxp10 + crsxp15 + crsxp17 + crsxp9 + crsxp16 + crsxp13
Teachg effectiveness F2 Learning Resources	FLearngRes	crsxp1 + crsxp21
Teachg effectiveness F3 Good teaching	FGoodteachg	crsxp4 + crsxp3 + crsxp6 + crsxp22 + crsxp19
Teachg effectvnss F4 Assessment	FAssess	crsxp12 + crsxp8 + crsxp7
PGI F1 Social Relationships	FSocRship	crsxp14 + crsxp2 + crsxp20 + crsxp25
Total ExtraCurricular Activities	TXtraCurr	xtra1 + xtra2 + xtra3 + xtra4 + xtra5 + xtra6
Sociocultural Adaptation scale	Fscas	adapt1 + adapt2 + adapt3 + adapt4 + adapt5 + adapt6 + adapt7 + adapt8 + adapt10
Factor Outcomes	Foutcomes	belong + sat1 + sat2 + loy1 + loy2 + ref1 + ref2 + ref3
Total academic performance	Tacadperf	perf_grade + perf_feel1
Cultural Groupings	cultgrps	1=UK; 2=E&SE Asia; 3=All others
Residence categories	ResCat	1= 0-12 mths, 2=>12 mths
Cultural Distance	CultDist	1= Collective & Hi/Med Power distance; 2 - Indiv & Low/Med Power Distance
Culture by Lewis's Model	Cult3grps	1=Linear; 2=Reactive; 3=Multi-active
Age Group	AgeGrp	1=<25 yrs; 2=25+yrs
PreSessional attendance	PreSessYorN	1=Yes to either; 2=No to both

APPENDIX 7

RESULTS FROM CONFIRMATORY FACTOR ANALYSIS

1. ENGLISH CONFIDENCE



Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	20
Number of distinct parameters to be estimated:	17
Degrees of freedom (20 - 17):	3

Result (Default model)
Minimum was achieved
Chi-square = 3.988
Degrees of freedom = 3
Probability level = .263

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	17	3.988	3	.263	1.329
Saturated model	20	.000	0		
Independence model	10	453.051	10	.000	45.305

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.991	.971	.998	.993	.998
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.300	.297	.299
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	.988	.000	10.501
Saturated model	.000	.000	.000
Independence model	443.051	377.078	516.434

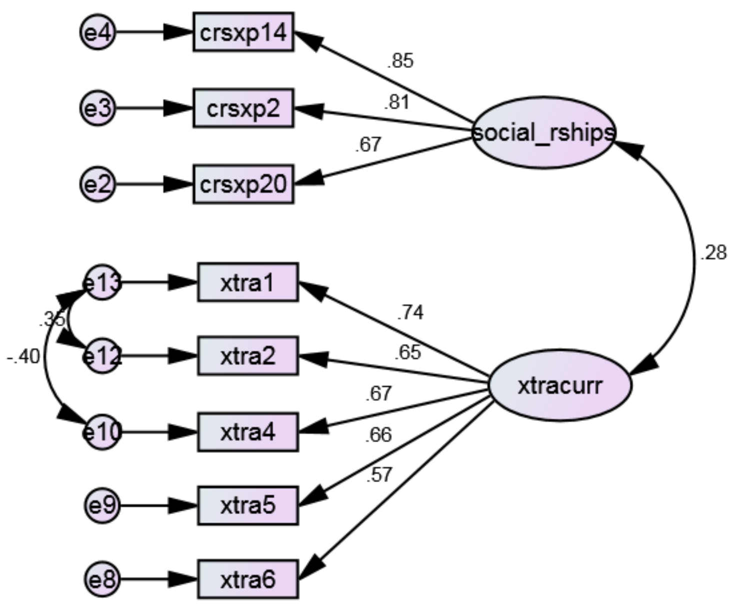
FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.030	.007	.000	.078
Saturated model	.000	.000	.000	.000
Independence model	3.381	3.306	2.814	3.854

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.050	.000	.162	.400
Independence model	.575	.530	.621	.000

2. SOCIAL SYSTEM



Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	36
Number of distinct parameters to be estimated:	19
Degrees of freedom (36 - 19):	17

Result (Default model)
Minimum was achieved
Chi-square = 20.543
Degrees of freedom = 17
Probability level = .247

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	19	20.543	17	.247	1.208
Saturated model	36	.000	0		
Independence model	8	375.158	28	.000	13.399

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.063	.965	.925	.455
Saturated model	.000	1.000		
Independence model	.363	.534	.401	.415

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.945	.910	.990	.983	.990
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.607	.574	.601
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	3.543	.000	19.186
Saturated model	.000	.000	.000
Independence model	347.158	288.317	413.445

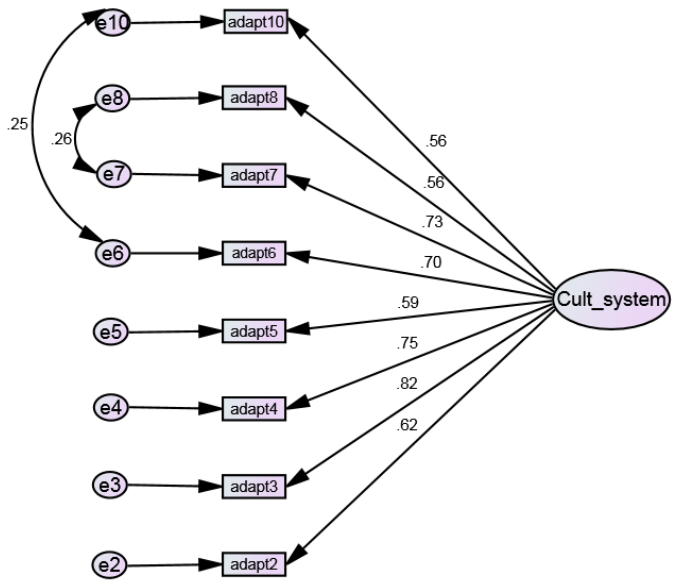
FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.153	.026	.000	.143
Saturated model	.000	.000	.000	.000
Independence model	2.800	2.591	2.152	3.085

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.039	.000	.092	.574
Independence model	.304	.277	.332	.000

3. CULTURAL SYSTEM



Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	36
Number of distinct parameters to be estimated:	18
Degrees of freedom (36 - 18):	18

Result (Default model)

Minimum was achieved
Chi-square = 22.731
Degrees of freedom = 18
Probability level = .201

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	18	22.731	18	.201	1.263
Saturated model	36	.000	0		
Independence model	8	439.689	28	.000	15.703

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.035	.961	.921	.480
Saturated model	.000	1.000		
Independence model	.378	.398	.226	.309

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.948	.920	.989	.982	.989
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.643	.610	.635
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	4.731	.000	21.119
Saturated model	.000	.000	.000
Independence model	411.689	347.489	483.324

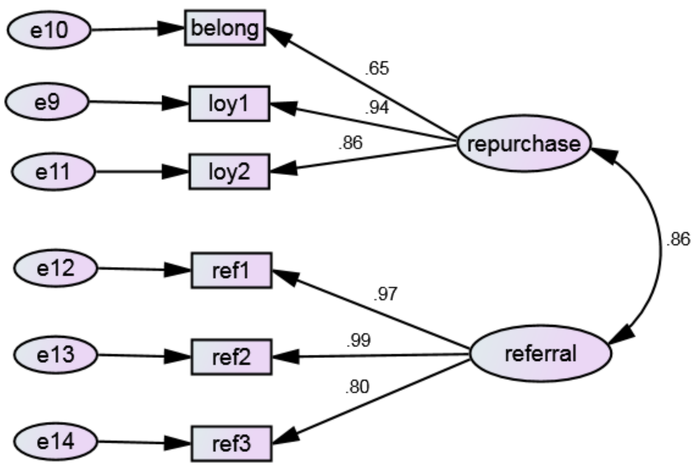
FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.170	.035	.000	.158
Saturated model	.000	.000	.000	.000
Independence model	3.281	3.072	2.593	3.607

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.044	.000	.094	.526
Independence model	.331	.304	.359	.000

4. LOYALTY



Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	21
Number of distinct parameters to be estimated:	13
Degrees of freedom (21 - 13):	8

Result (Default model)

Minimum was achieved
Chi-square = 7.584
Degrees of freedom = 8
Probability level = .475
Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	13	7.584	8	.475	.948
Saturated model	21	.000	0		
Independence model	6	814.727	15	.000	54.315

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.049	.974	.923	.325
Saturated model	.000	1.000		
Independence model	2.324	.290	.007	.207

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.986	.970	.995	.988	.994
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.467	.460	.464
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	4.422	.000	17.829
Saturated model	.000	.000	.000
Independence model	799.727	709.918	896.930

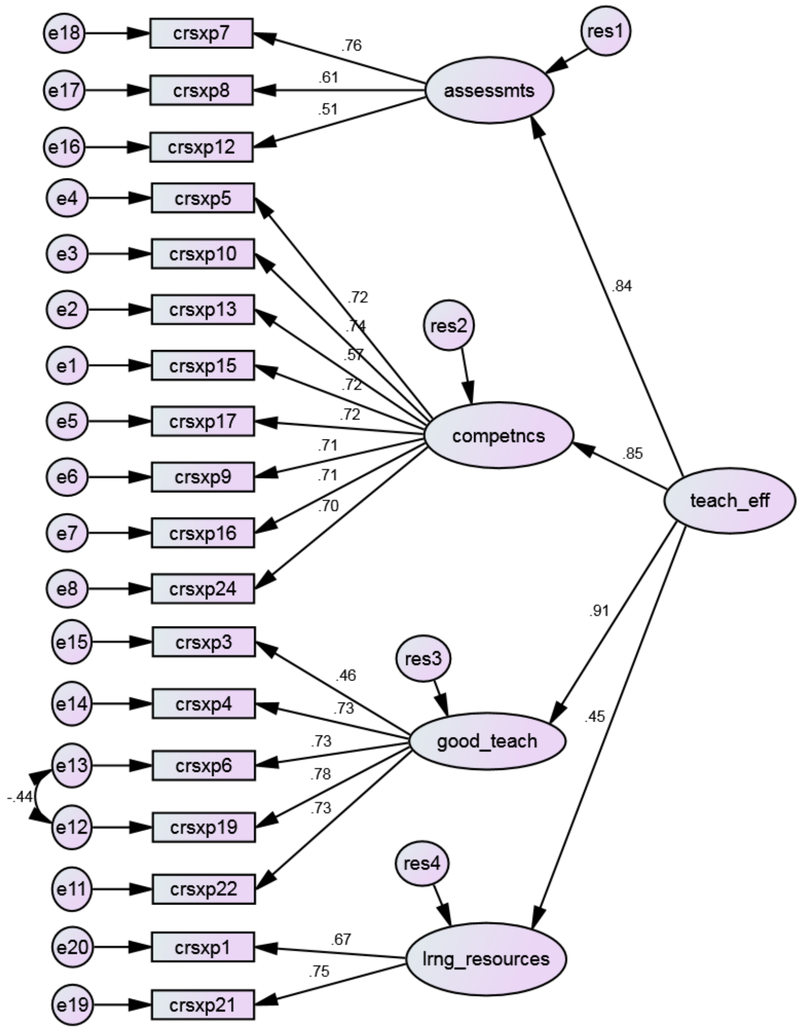
FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.085	.033	.000	.133
Saturated model	.000	.000	.000	.000
Independence model	6.080	5.968	5.298	6.694

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.069	.000	.138	.286
Independence model	.631	.594	.668	.000

5. ACADEMIC SYSTEM



Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	171
Number of distinct parameters to be estimated:	41
Degrees of freedom (171 - 41):	130

Result (Default model)

Minimum was achieved
Chi-square = 178.201
Degrees of freedom = 130
Probability level = .003

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	41	178.201	130	.003	1.371
Saturated model	171	.000	0		
Independence model	18	1097.039	153	.000	7.170

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.042	.873	.834	.664
Saturated model	.000	1.000		
Independence model	.247	.298	.215	.266
Standardized RMR	.0556			

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.838	.809	.950	.940	.949
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.850	.712	.806
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	48.201	17.176	87.282
Saturated model	.000	.000	.000
Independence model	944.039	842.639	1052.902

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	1.330	.360	.128	.651
Saturated model	.000	.000	.000	.000
Independence model	8.187	7.045	6.288	7.857

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.053	.031	.071	.398
Independence model	.215	.203	.227	.000

APPENDIX 8

TESTING FOR CONVERGENT AND DISCRIMINANT VALIDITY

Reliability was previously established during PCA in Chapter 4, section 4.2, using Cronbach's alpha, to ensure acceptable internal consistency. However, a more robust analysis to determine convergent validity (CV), which considers composite reliability (CR), another internal consistency value, and average variance extracted (AVE) to determine within-construct correlations, i.e. the extent to which measures of the same construct are correlated (Byrne, 2010). CR should normally be greater than 0.7 (although Hair et al, 2011 identifies that a value greater than 0.6 is acceptable for exploratory research). Secondly the average variance extracted (AVE) value should be 0.5 or higher, meaning that the variable explains half or more of its indicators' variance (Hair et al, 2011). However, Wilkins et al (2015) reports a threshold of .45 for AVE. Taking these thresholds into consideration, it can be seen that all variables are acceptable for CV, as reported in the table below.

Table 1: Construct reliability, Average Variance Extracted and Construct Correlations

	Construct Reliability	Average Variance Extracted	Acad Perf	Compet-ences	Good Teaching	Assess-ments	Learning Resources	Repurch Intention	Referral Intention	Satisfactn	Extra curricular	Cultural system	Social Rships
Academic Performance	0.68	0.52	**0.72**										
Teaching Effectiveness: Competences	0.85	0.53	0.32	**0.73**									
Good Teaching	0.80	0.57	0.22	0.71	**0.75**								
Assessments	0.62	0.45	0.08	0.63	0.83	**0.67**							
Learning Resources	0.70	0.54	0.08	0.48	0.32	0.24	**0.74**						
Repurchase	0.89	0.81	0.19	0.49	0.53	0.52	0.03	**0.90**					
Referral	0.95	0.85	0.27	0.56	0.47	0.46	0.20	0.87	**0.92**				
Satisfaction	0.90	0.82	0.29	0.64	0.56	0.59	0.23	0.84	0.79	**0.91**			
Extracurricular Activities	0.78	0.55	-0.18	0.29	0.03	-0.01	0.05	0.15	0.17	0.20	**0.74**		
Cultural System	0.86	0.50	0.26	0.37	0.21	0.18	0.18	0.19	0.33	0.24	0.19	**0.71**	
Social Relationships	0.84	0.61	0.22	0.70	0.52	0.49	0.29	0.50	0.51	0.55	0.33	0.41	**0.78**

Discriminant validity (DV) focuses on between-construct correlations, i.e. the extent to which variables diverge between different factors or constructs, i.e. there is discrimination between the constructs (Byrne, 2010). DV is achieved when the square root of the AVE (the figures within the shaded boxes in the table above) is greater than any inter-factor correlation (the figures underneath the shaded boxes) in the model based on the Fornell-Larcker criterion (Hair et al, 2011). DV is established for all of the constructs in the table above, with the exception of Teaching Effectiveness. Although DV was established for two of the factors within the Teaching Effectiveness construct, Competences and Learning Resources, there are some concerns with the remaining two factors. DV was not achieved for Good Teaching, as the square root of the AVE (0.75) is less than the absolute value of the Assessments correlation (0.83). Similarly, the square root of the AVE for Assessments is less than the absolute value of the Good Teaching correlation. This suggests these two variables are not completely distinct from each other, not a surprising result given that they are both factors from the same construct which addresses a range of discrete, though experientially associated, attributes; consequently there was some likelihood of cross-loadings. As this construct was taken from the previously validated National Student Survey, and the intention of this study was to consider the effect of English language proficiency on the Teaching Effectiveness construct and the influence of this construct on outcomes (rather than examining its individual factors) it was decided to continue without removing any factors from the model.

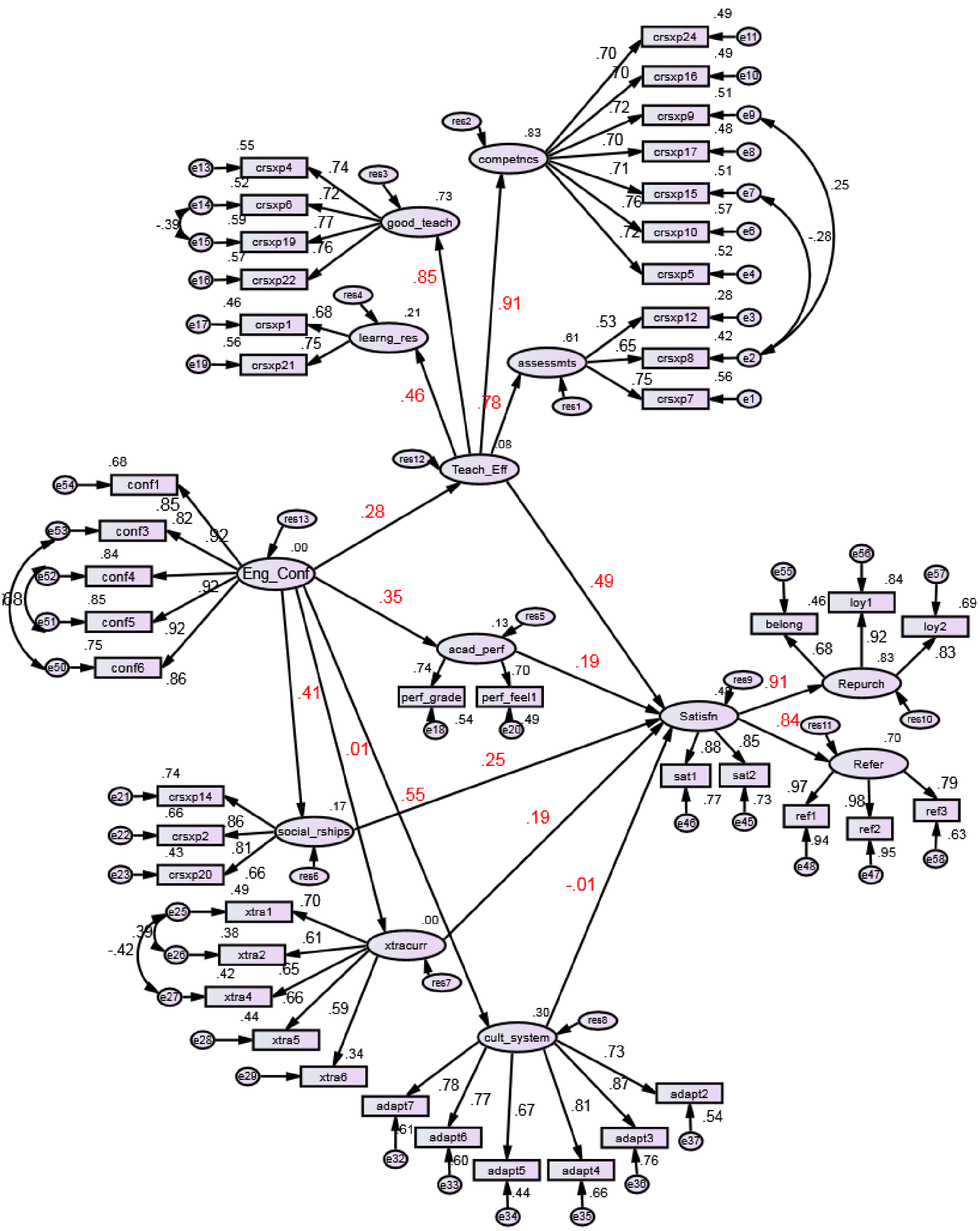
APPENDIX 9

FINAL ITEM CODES AND NAMES USED IN MEASUREMENT MODEL

ID code	*ID number*	*Scale used*
ENGLISH CONFIDENCE		
conf1	confidence reading & understanding	{1, strongly disagree – 6, strongly agree}
conf2	writing comfortably	
conf3	speaking correctly	
conf4	writing correctly	
conf5	understanding spoken English	
conf6	dealing with situations needing to use English	
ACADEMIC SYSTEM Learning Resources		
crsxp1	library resources	{1, strongly disagree – 5, strongly agree}
crsxp21	access general IT	
Good teaching		
crsxp3	feedback timely	{1, strongly disagree – 5 strongly agree}
crsxp4	enthusiastic teachers	
crsxp6	support for learning needs	
crsxp19	teachers good at explaining	
crsxp22	teachers made subjects interesting	
Competencies		
crsxp5	confidence presenting ideas	{1, strongly disagree – 5, strongly agree}
crsxp9	intellectually stimulating	
crsxp10	tackle unfamiliar problems	
crsxp13	able to contact staff	
crsxp15	better cultural understanding	
crsxp16	feedback helped to improve	
crsxp17	written communication skills	
crsxp24	critical thinking skills	
Assessments		
crsxp7	detailed coursework comments	{1, strongly disagree – 5, strongly agree}
crsxp8	assessment/marking fair	
crsxp12	clear marking criteria	
SOCIAL SYSTEM Social Relationships		
crsxp2	close friendships	{1, strongly disagree – 5, strongly agree}
crsxp14	personally satisfying friendships	
crsxp20	new friendships	
Extracurricular Activities		
xtra1	social activities & clubs	{1, strongly disagree – 5, strongly agree
xtra2	sports & leisure facilities	& 6, not applicable}

xtra4	course events with local organisations	
xtra5	social events arranged	
xtra6	travel opportunities	
CULTURAL SYSTEM		
adapt2	understanding differences between British and my culture	{1, Extreme difficulty – 5, No difficulty}
adapt3	having meaningful conversations with English	
adapt4	dealing with authority	
adapt5	adjusting to Nottingham life	
adapt6	understanding English cultural rules	
adapt7	getting on with different cultures	
adapt8	seeing things from different point of view	
adapt10	expressing needs to locals	
LOYALTY Repurchase Intention		
belong	sense of belonging to NTU	{1, strongly disagree – 5, strongly agree}
loy1	NTU as first choice	
loy2	NTU for further study	
Referral Intention		
ref1	recommend NTU to someone	{0, very unlikely – 10, very likely}
ref2	encourage friends & family to go to NTU	
ref3	say positive things about NTU	

FINAL FULL MEASUREMENT AND STRUCTURAL MODEL



Notes for Model (Default model)

Computation of degrees of freedom (Default model)

Number of distinct sample moments:	1035
Number of distinct parameters to be estimated:	113
Degrees of freedom (1035 - 113):	922

Result (Default model)

Minimum was achieved
Chi-square = 1411.580
Degrees of freedom = 922
Probability level = .000

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	113	1411.580	922	.000	1.531
Saturated model	1035	.000	0		
Independence model	45	4986.799	990	.000	5.037

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.147	.701	.664	.625
Saturated model	.000	1.000		
Independence model	.478	.198	.162	.190

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.717	.696	.880	.868	.878
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.931	.668	.817
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	489.580	392.095	595.005
Saturated model	.000	.000	.000
Independence model	3996.799	3779.916	4221.047

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	10.534	3.654	2.926	4.440
Saturated model	.000	.000	.000	.000
Independence model	37.215	29.827	28.208	31.500

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.063	.056	.069	.001
Independence model	.174	.169	.178	.000